Laws and Regulations (L&R) Committee
2019 Interim Meeting Agenda

Ms. Michelle Wilson, Committee Chair
Arizona

INTRODUCTION

The L&R Committee 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 headings and subjects apply to *NIST Handbook 130 Uniform Laws and Regulations in the Areas of Legal Metrology an Engine Fuel Quality, 2018 Edition*, and *NIST Handbook 133 Checking the Net Contents of Packaged Goods, 2018 Edition*. The first four digits of an item's reference key are assigned from the Subject Series List. The acronyms for organizations and technical terms used throughout the agenda are identified in Table B. In some cases, background information will be provided for an item. The fact that an item appears on the agenda does not mean it will be presented to National Conference on Weights and Measures (NCWM) for a vote. The Committee will review its agenda and may withdraw some items, present some items for information meant for additional study, issue interpretations, or make specific recommendations for change to the publications identified which will be presented for a vote at the Annual Meeting. The Committee may also take up routine or miscellaneous items brought to its attention after the preparation of this document. The Committee may decide to accept items for discussion that are not listed in this document, providing they meet the criteria for exceptions as presented in NCWM Policy 3.1.4. Handbooks, *Procedures to Modify Handbooks*. The Committee has not determined whether the items presented will be Voting or Informational in nature; these determinations will result from their deliberations at the Interim Meeting.

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

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

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

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

Subject Series List

Table A
Table of Contents

Table B
Glossary of Acronyms and Terms

Acronym	Term	Acronym	Term
ASTM	ASTM International	NIST	National Institute of Standards and Technology
CFR	Code of Federal Regulations	OWM	Office of Weights and Measures
CNG	Compressed Natural Gas	PALS	Packaging and Labeling Subcommittee
CWMA	Central Weights and Measures Association	S&T	Specifications and Tolerances
FALS	Fuels and Lubricants Subcommittee	SAE	Society of Automotive Engineers
L&R	Laws and Regulations	SWMA	Southern Weights and Measures
LNG	Liquefied Natural Gas	UPLR	Uniform Packaging and Labeling Regulation
NCWM	National Conference on Weights and Measures	USNWG	U.S. National Work Group
NEWMA	Northeastern Weights and Measures Association	WWMA	Western Weights and Measures Association

Details of All Items
(In order by Reference Key)

BLOCK 1 ITEMS (B1) MULTIUNIT PACKAGE LABELING, MAV FOR MULTI-UNIT & VARIETY PACKAGES AND HANDBOOK 133, CHAPTER 5, SPECIALIZED TEST PROCEDURES

Source:
NIST OWM (2019)

B1: PAL-1 Handbook 130, Uniform Packaging and Labeling Regulation, Section 2.8. Multiunit Package

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 NIST 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-1 Handbook 133: Section 1.2.4. Maximum Allowable Variation

Purpose:
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.

Item Under Consideration:
Amend NIST 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. unreasonable minus error. Each sampling plan limits the number of negative package errors permitted to be greater than the MAV. **Packages are offered for sale individually or in multiunit packages which may contain two or more individual inner packages. When individual packages are tested 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 verified, and the MAV is not determined in terms of a percent of the labeled quantity, a "Total Quantity MAV" is compared to the minus Total Quantity Package Error(s) to determine if they are unreasonable.**

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

Total Quantity Package Error = Sum of Individual Inner Package Errors

(Amended 2010 **and 20XX**)

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

a. Multiunit Package. – When a total quantity declaration 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 or individual inner packages having uniform weight, measure and or count.

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

b. Variety Package. – When a total quantity declaration appears in 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 = Number of Individual Inner Packages × MAV for Individual Inner Package Quantity

Variety packages typically include several different types of similar products with various net quantity declarations. While the commodities may be generically similar, they can differ in weight, measure, volume, or appearance. For these packages a Total Quantity MAV is calculated for each product type 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/uniform weight or measure.

MAV for Individual Inner Package Quantity. – The MAV for the quantity declared for the individual inner packages specified in the proper Table of MAVs in Appendix A. "Tables."

B1: NET-2 Handbook 133, Sections 2.1. Scope, 3.1. Scope, 4.1. Scope and Section 2.3.7.1. Maximum Allowable Variation (MAV) Requirement

Purpose:
With the adoption of Chapter 5. Specialized Test Procedure this clarifies the language within NIST Handbook 133 and NIST Handbook 130.

Item Under Consideration:
Amend NIST Handbook 133, Chapters 2, 3 and 4 as follows:

Add a Note to HB133, 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 see Chapter 5. "Specialized Test Procedures" for guidance in testing these types of packages. If a total quantity declaration is to be verified and the MAV to be applied is not based on a percentage of the labeled quantity, (See also Section 1.2.4.1. "Total Quantity MAV for Multiunit and Variety Packages.)

And

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 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.)

B1: NET-3 Handbook 133, Chapter 5. Specialized Test Procedures

Purpose:

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

Item Under Consideration:

Amend NIST Handbook 133, Chapter 5 as follows:

5.1. Scope

The following procedures are for use in verifying the net quantity of contents of multiunit packages with individual inner packages that have the same commodity and identical quantities and variety packages with individual inner packages that differ in weight, measure or volume. The procedure used is determined by the package label. If a total net quantity of contents is not declared on the package label, use Section 5.2. Individual Package Quantity. If a total net quantity of contents is declared on the package, use Section 5.3. Total Quantity. If the packages are labeled with other or additional quantities (i.e., dry volume, area, length, width, or thickness) added steps or, when proper, additional Total Quantity MAVs may be required.

5.2. Individual Package Quantity

This procedure is used to test open or transparent multiunit packages with no total net quantity declaration on the package label. For these packages the net quantity is visible on each individual inner package and they are identical (See Figure 1. Multiunit Package with Individual Quantity Declarations [which contains two rows of packages]).

Figure 1. Multiunit Package with Individual Quantity Declarations (which contains two rows of packages)

Cereal Net Wt 100 g	Cereal Net Wt 100 g	Cereal Net Wt 100 g	Cereal Net Wt 100 g	Cereal Net Wt 100 g

5.2.1. Test Procedure

1. **Follow Section 2.3.1. "Define the Inspection Lot" which is the total number of individual inner packages in the multiunit packages (e.g., if there are 120 packages and each contains 12 individual inner packages the Inspection Lot size is 1440). Use this number with Category A or Category B. to find the sample size (See Section 2.3.2. "Select Sampling Plans"). Select a random sample (See Section 2.3.4. "Random Sample Selection").**

2. **At least two of the individual inner packages are opened to determine an average tare weight (See Section 2.3.5. "Procedures for Determining Tare"). The Average Tare Weight is added to the labeled quantity to obtain a Nominal Gross Weight (See Section 2.3.6. "Determine Nominal Gross Weight and Package Errors") which is used to determine package errors.**

3. **The net quantity of each individual inner package in the sample is determined. If a count declaration appears on the multiunit packages it should be verified (See Section 4.2. "Packages Labeled by Count") and the appropriate MAV for the count from 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 looking up the quantity for the individual inner packages (See Appendix A "Tables"). The MAV for the labeled quantity is compared to the minus package errors in the individual inner packages to determine if any are unreasonable (See 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 or 2-2, Column 4) the sample fails. If the sample passes go to Step 5.**

5. **Apply Section 2.3.7.2. "Average Requirement." The sample passes or fails depending on the results of the evaluation conducted according to Section 2.3.7. "Evaluation for Compliance."**

5.3. Total Quantity

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

Test Procedure

1. **Follow Section 2.3.1. "Define the Inspection Lot" which is the number of multiunit packages. Use this number with Category A or Category B. to find the sample size (See Section 2.3.2. "Select Sampling Plans"). Select a random sample (See Section 2.3.4. "Random Sample Selection").**

2. **Determine the tare of at least two multiunit packages using Section 2.3.5. "Procedures for Determining Tare". The average tare weight is added to the labeled quantity to obtain a nominal gross weight (See Section 2.3.6. "Determine Nominal Gross Weight and Package Error"). This is used to determine errors in the total package quantity declaration.**

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

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

Total Quantity Package Error = Sum of Individual Inner Package Errors

If needed, verify the count declaration of the individual inner packages. For the MAV for count use Appendix A. Table 2-7. "MAV for Packages Labeled by Count".

4. If minus package errors are found in the sample, look up and use the MAV for the individual inner package quantity. (See Section 1.2.4.1. "Total Quantity MAV for Multiunit and Variety Packages" and the appropriate MAVs in Appendix A "Tables"). Calculate the MAV to be applied to the total quantity of contents declaration as follows:

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

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

5. The "Total Quantity MAV" is compared to the minus Total Quantity Package Errors to determine if any of the errors are unreasonable (See Section 2.3.7.1. "MAV Requirement"). If the number of unreasonable errors exceeds the amount allowed for the sample size the sample fails. (See Section 2.3.1. "Define the Inspection Lot" and Tables 2-1 or 2-2, Column 4). If the sample passes go to Step 6.

6. Apply Section 2.3.7.2. "Average Requirement." The sample passes or fails depending on the results of the evaluation conducted according to Section 2.3.7. "Evaluation for Compliance."

5.4. Exceptions

5.4.1. Multiunit Packages with Only a Total Quantity Declaration

In NIST HB 130, Uniform Packaging and Labeling Regulation (UPLR), Section 10.4. Multiunit Packages states 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]. Section 10.4. Multiunit Packages also permits multiunit packages to include an optional statement of the count of the individual inner packages even when the regulations do not require such a statement.

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

Floor Cleaner	**Floor Cleaner** **NET WEIGHT 15 kg**	**Floor Cleaner**

5.4.1.1. MAV Application

When multiunit package labels do not include a quantity for the individual inner packages (e.g., only a total quantity appears) a Total Quantity MAV cannot be not applied because the quantities in the individual inner packages is unknown. In these cases, the MAV value for the total quantity declaration in the MAV tables (See Appendix A. Tables) is compared to the Total Quantity Package Error to determine if any of the errors are unreasonable (See Section 2.3.7.1. "MAV Requirement").

5.4.2. Variety Packages: Non-Uniform Quantity Declarations

In NIST HB 130, "Uniform Laws and Regulations in the Areas of Legal Metrology and Engine Fuel Quality." In UPLR Section 10.6. Variety Packages it states a variety packages is required to have total quantity declaration. While the commodities may be generically similar, they can differ in weight, measure, volume, or appearance. When the quantity of the weight, measure or count varies the value of the 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 label for a variety package of candy bars 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.

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

30 Candy Bar – Variety Pack Total Net Weight 1.33 kg	
10 – 55 g Peanut Butter Cups	6 – 30 g Dark Chocolate Bars
6 – 46 g Milk Chocolate Bars with Almonds	8 – 41 g Milk Chocolate Bars

5.4.3. Test Procedure:

1. **When this type of variety package 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.**

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

Total Quantity Package Error = Sum of Individual Inner Package Errors

The MAV used to determine if any minus Total Quantity Package Errors are unreasonable is be calculated. The MAVs selected are based on the labeled quantities on each product types and are calculated (i.e., the number of individual inner packages of each product type is multiplied by their count) and these are added to obtain the Total Quantity MAV (See example shown in Table 1. Steps in Calculating a MAV for a Variety Package).

5.4.3.1. MAV Application:

A Total Quantity MAV must be applied because the quantities and MAVs of the individual inner packages vary. For example, based on the quantity of the total net weight the MAV for 1.33 kg is 42.6 g but the "Total Quantity MAV" to be applied is 122.4 g (See example shown reflected in Table 1. Steps in Calculating a MAV for a Variety Package).

Table 1. Steps in Calculating a MAV for a Variety Package (Based on Figure 3. Variety Package – Four Similar but Different Products with Varying Net Weights)					
Item	**Product**	**Number in Package**	**Net Weight**	**MAV for Net Quantity**	**Total Quantity MAV**
1	**Peanut Butter Cups**	**10**	**55 g**	**5.4 g**	**10 × 5.4 = 54 g**
2	**Dark Chocolate Bars**	**6**	**30 g**	**10 % of labeled quantity**	**6 × (0.1 × 30) = 18 g**
3	**Milk Chocolate Bars**	**8**	**41 g**	**3.6 g**	**8 × 3.6 = 28.8 g**
4	**Milk Chocolate Bars with Almonds**	**6**	**46 g**	**3.6 g**	**6 × 3.6 = 21.6 g**
				Total Quantity MAV	**122.4 g**

Background/Discussion: See Appendix A, Page L&R-A169.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

MOS – UNIFORM REGULATION FOR THE METHOD OF SALE COMMODITIES

MOS-5 Section 1. Food Products and Section 2. Non-Food Products

Source:
Los Angeles County, California (2016)

Purpose:
Clarify and formalize the long-standing, fundamental, core tenet of legal metrology and weights and measures regulation that the sale of any commodity, in any form or by any method, be according to legally-recognized, traceable units of measure.

Item Under Consideration:
Amend the Uniform Regulation for the Method of Sale of Commodities as follows:

Preamble

The purpose of this regulation is to require accurate and adequate information about commodities so that purchasers can make price and quantity comparisons.

Packages and their labels should enable consumers to obtain accurate information as to the quantity of the contents and should facilitate value comparisons. Equally, sales of commodities from bulk should be according to methods and units readily recognized and understood by, both, buyer and seller.

Section 1. Food Products

(a) Unless otherwise specified or specifically permitted, the sale of any food product, whether sold from bulk or in packaged form, shall be only according to a unit of measure or weight that meets all of the following criteria:

(1) Is recognized and defined by NIST as legal for use in commerce

(2) Has been published in the "Federal Register"; and

(3) The measurement values have metrological traceability *(NOTE #, page #)* to a national standard

Note: Sale of a product or commodity according to count, where appropriate to be fully informative to facilitate value comparison, is permissible as a method of sale.

(Added 1989)(**Amended 20XX)**

Section 2. Non-food Products[***NOTE 1***, page 109]

(a) Unless otherwise specified or specifically permitted, the sale of any non-food product, whether sold from bulk or in packaged form, shall be only according to a unit of measure or weight that meets all of the following criteria:

(1) Is recognized and defined by NIST as legal for use in commerce

(2) Has been published in the "Federal Register"; and

(3) The measurement values have metrological traceability *(NOTE #, page #)* to a national standard

Note: Sale of a product or commodity according to count, where appropriate to be fully informative to facilitate value comparison, is permissible as a method of sale.

(Added 1989)(**Amended 20XX)**

Background/Discussion: See Appendix A, Page L&R-A170.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

MOS-7 Section 2.4. Fireplace and Stove Wood.

Source:
Retail Marketing Solutions (RMS) (2019)

Purpose:
Provide an extension to the effective date for companies that were not given notice when changes were adopted.

Item Under Consideration:
Amend NIST Handbook 130, Uniform Regulation for the Method of Sale of Commodities as follows:

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^3 ($^1/_8$ cord or 16 ft^3) shall display the quantity in terms of:

(1) liters, to include fractions of liter, and may also include a declaration of quantity in terms of cubic foot or feet to include fractions of a cubic foot.

(Amended 2010 and 2016)

NOTE: *Implementation for the requirement for use of the liter in (1) package may continue to show the dm^3 level instead of liter (L) for* ~~***three***~~ ***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 20XX)**

Background/Discussion: See Appendix A, Page L&R-A172.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

MOS-8 D Section 2.XX. Non-Utility Transactions of Electrical Energy (Other than Vehicle Fueling Applications).

Source:
NIST OWM (2016)

Purpose:

1. Make the weights and measures community aware of work being done within the U.S. National Work Group on Electric Vehicle Fueling and Submetering to develop proposed requirements for electric watthour meters used in submeter applications in residences and businesses;

2. Encourage participation in this work by interested regulatory officials, manufacturers, and users of electric submeters.

3. Allow an opportunity for the USNWG to provide regular updates to the S&T Committee and the weights and measures community on the progress of this work;

4. Allow the USWNG to vet specific proposals as input is needed.

Item Under Consideration:
Amend NIST Handbook 130, Uniform Regulation for the Method of Sale of Commodities as follows:

2.XX. Non-Utility Transactions of Electrical Energy (Other than Vehicle Fueling Applications).

This section applies to non-utility sales of electricity; that is, transactions of electrical energy by other than a utility where the transaction is based in whole or in part on measured quantities of energy delivered.

This section does not apply to:

(a) Electric energy sold in vehicle fueling applications as defined in Section 2.34. Retail Sales of Electricity Sold as a Vehicle Fuel.

(b) Transactions not subject to weights and measures authority.

2.XX.1. Definitions.

2.XX.1.1. Utility. – In this regulation, an entity not subject to weights and measures authority as defined by law or regulation, such as a public utility or municipality or electric cooperative.

2.XX.1.2. Electricity Metering System. - An electricity metering system comprises of components functioning together to measure and register active energy, apparent energy and/or power factor. An electricity metering system may measure alternating current (AC) or direct current (DC) energy.

2.XX.1.3. Demand. – The average rate at which a particular integrated quantity is being supplied to the load. Generally, it is indicated, recorded, or computed as the average obtained over a specified time interval. Demand is expressed in kilowatts (kW), kilovolt-amperes (kVA), kilovars (kvar), or other suitable units.

2.XX.1.4. Power Factor (PF). – The ratio of the "active power" to "apparent power", in an AC circuit. It describes the efficient use of available power.

2.XX.2. Method of Sale. – All electrical energy offered for sale and sold based on the electrical energy transfer through the electric meter shall be in units specified below.

(a) Active Energy: megajoules (MJ) or kilowatt-hours (kWh)

(b) Apparent Energy: kilovolt-ampere hours (kVAh)

(c) Demand: kilowatts (kW) or kilovolt-amperes (kVA)

In addition to the fees assessed for the quantity of electrical energy sold, where permitted, fees may also be assessed for other services, such as taxes and/or fixed fees.

(a) a "power factor (PF)" and

(b) other services related to the sale of electrical energy, such as taxes and/or fixed fees.

2.XX.3. Unit Price. – The electrical energy unit price shall be in terms of price per unit of measure and in U.S. currency.

(Added 20XX)

Background/Discussion: See Appendix A, Page L&R-A173.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

ODR – UNIFORM OPEN DATING REGULATION

ODR-1 **Section 1. Purpose, Scope and Application, Prohibited and Acceptable Terms, Section 2. Definitions, Section 3. Sale of Perishable Food and Date Determination, Section 4. Sale of Semi Perishable and Long Shelf Life Food with "BEST If Used By" Opening Date., Section 5. Placement of the "USE By" or "BEST If Used by Date, Section 6. Factors for the Date Determination of "USE By" or BEST If Used By" Dates, Section 7. Records., Section 8. Exemptions, Section 9. Preemption of Local, County, and Municipal Ordinance and Section 10. Effective Date**

Source:
NIST OWM (2019)

Purpose:
Improve the accuracy and usability of open dating information resulting in financial savings for consumers and industry alike.

Item Under Consideration:
Amend NIST Handbook 130 Uniform Open Dating Regulation as follows:

Section 1. Purpose, Scope and Application, Prohibited and Acceptable Terms

1.1. Purpose. – The purpose of this regulation is to prescribe ~~**mandatory uniform**~~ **open** date labeling **that shall be used whenever a person provides open** ~~**of prepackaged, perishable foods and to prescribe optional uniform date labeling that must be used whenever a packager elects to use**~~ date labeling on ~~**prepackaged**~~ **packaged** foods**.** ~~**that are not perishable.**~~ Open dating is intended for use and understanding by both **packers,** distributors**, retailers** and consumers when judging food qualities. **Use of the terms "USE By" and "BEST if Used By" prescribed in this regulation, and no others, will reduce consumer confusion over food date labels and may aid in reducing food waste.**

~~***NOTE 1: Alternatively, this regulation may be adopted to require uniformity of open dating of perishable foods whenever a packager voluntarily elects to use date labeling. In such instances Sections 1.1. Purpose and 3.1. "Sell By" Date are reworded in the following manner:***~~

> ~~***1.1. Purpose. The purpose of this regulation is to prescribe uniform date labeling that must be used whenever a packager elects to use date labeling on a prepackaged food. Open date labeling is intended for use and understanding by both distributors and consumers when judging food qualities.***~~
>
> ~~***3.1. "Sell By" Date. If a retail food establishment elects to sell or offer for sale a prepackaged perishable food identified with a "sell by" date, the "sell by" date used must be as prescribed by this regulation***~~

1.2. Scope and Application. – This regulation prescribes the manner of date labeling, the method of determining the appropriate date, required records, responsible persons, and the foods subject to this regulation. This regulation provides for the permissible sale **or disposal** of a regulated food after the expiration of the date on the label **and should not be applied in any way to restrict food recovery efforts**. This regulation does not apply to any food that is not ~~**prepackaged**~~ **packaged** or **which** is exempted by Section 8.

1.3. Prohibited and Acceptable Terms. – After the effective date of this regulation the terms "Sell-By Date," "Pull Date," and "Display Until Date" or words of similar meaning used for stock control shall appear only in a closed-date system that is invisible to consumers. However, the use of open dating in conjunction with terms such as "Use or Freeze By" or "Best If Used By" or words of similar meaning intended to aid consumers in handling the product safely after purchase is permitted. However, manufacturers and retailers should utilize, at most, one date label per food product.

Section 2. Definitions

2.1. "~~Sell By~~ BEST If Used By" Date – A ~~**recommended last**~~ date **prior to deterioration of qualities described in Section 2.7. Semi Perishable Food and Section 2.2. Long Shelf Life Food. It describes product quality, where, after expiration of the date the product may not taste or perform as expected but it is safe to use or consume.** ~~**of sale that permits a subsequent period before deterioration of qualities described in 2.2. Perishable Food, 2.3. Semi Perishable Food, and 2.4. Long Shelf Life Food**~~.

2.2. Long Shelf Life Food. – Any food for which a significant risk of spoilage, loss of value, or loss of palatability does not occur sooner than 6 months after the date of packaging, including foods, preserved by freezing, dehydrating, or being placed in a heretically sealed container.

2.5~~3~~. ~~Prepackaged~~ Packaged. – Food packaged prior to being displayed**,** ~~**or**~~ offered**, or exposed** for ~~**retail**~~ sale.

2.~~2~~4. Perishable Food. – Any food having a significant risk of spoilage, loss of value, or loss of palatability within 60 days of the date of packaging.

~~**2.4. Long Shelf Life Food – Any food for which a significant risk of spoilage, loss of value, or loss of palatability does not occur sooner than 6 months after the date of packaging, including foods preserved by freezing, dehydrating, or being placed in a hermetically sealed container.**~~

2.~~7~~5. Person. – An individual, partnership, association, or corporation.

2.6. Retail Sales. – Retail sale includes sales such as, but not limited to, those made in any retail store including club and membership stores, through online sales, catalog sales, telephone and door-to-door solicitations, and home-food service plans.

2.~~3~~7. Semi Perishable Food – Any food for which a significant risk of spoilage, loss of value, or loss of palatability ~~**occurs only after a minimum of**~~ **within** 60 days~~**, but within 6 months, after**~~ **of** the date of packaging.

2.~~6~~8. "~~Best If~~ Used By" Date – A date **that informs the consumer that the product should be consumed by the date displayed on the label and after the expiration of that date, the food should not be used or consumed and should be properly disposed of.** ~~**prior to deterioration of qualities described in 2.3. Semi Perishable Food and 2.4. Long Shelf Life Food.**~~

Section 3. Sale of Perishable Food and Date Determination

3.1. "~~Sell~~ USE By" Date. ~~[*NOTE 1,* page 159]~~ – A ~~**retail food establishment**~~ **person** shall not sell or offer for sale a ~~**prepackaged**~~ **packaged** perishable food unless it is identified with a "~~**sell by**~~ **USE By**" date as prescribed by this regulation.

3.2. Manner of Expressing Date. – The "Use By" date as required by Section 3.1. "USE By Date" shall be placed upon or attached to each container or package and be limited to the terms "USE By" followed by or immediately over the date designated by the month and year, unless a prominent notice is on the label escribing the date as a "USE By" date and indicating the location of the date. The word "USE" and the "U" in "Used" and the letter "B" in "By" must be shown in uppercase letters. The date shall be designated by the first 3 letters of the month followed by a numeral indicating the year (which may appear in either two or four digits, for example as "2021" or "21"). The use of the day of the month is permissible provided that the day of the month is placed prior to the month; for example, "30 Jun 21" or "30 JUNE 2021).

3.3. Determination of "USE By" Date.

3.3.1. – Reasonable Period for Consumption. – A manufacturer, processor, packer, re-packer, retailer, or other person who prepackages perishable food, shall determine a date that allows a reasonable period after sale of consumption of the food without physical spoilage, loss of value, or loss of palatability. A reasonable period for consumption shall consist of at least one third of the approximate total shelf life of the perishable food.

3.3.2. Responsibility for "USE By" Date. – A retailer who purchases packaged perishable food may upon written agreement with the person who packages such food each package of such food.

3.4. Sale after Expiration of the "USE By" Date.

(a) A person shall not, in a retail sale, offer or expose for sale or sell a packaged perishable food after the expiration of "USE By" Date on the label.

(b) A person may sell or donate food after the expiration of the "Use By" date but must notify the receiving party in writing that the product "USE By" date is expired, and it is the receiving party's responsibility to evaluate the quality and wholesomeness of the product prior to use or consumption.

~~**3.2. Sale After Expiration of "Sell By" Date.**~~

~~**3.2.1. Advertisement. Perishable food shall not be offered for sale after the "sell by" date unless it is wholesome and advertised in a conspicuous manner as being offered for sale after the recommended last date of sale. The placement of a sign, sticker, or tag is acceptable for such advertising if it is easily readable and clearly identifies the perishable food as having passed the recommended last date of sale.**~~

~~**3.2.2. Responsibility for Advertisement. The retailer or final seller is responsible for the advertisement, described in Section 3.2.1. Advertisement, of a perishable food offered for sale after the recommended last date of sale.**~~

~~**3.3. Determination of "Sell By" Date.**~~

~~**3.3.1. Reasonable Period for Consumption. A manufacturer, processor, packer, re-packer, retailer, or other person who prepackages perishable food, shall determine a date that allows a reasonable period after sale for consumption of the food without physical spoilage, loss of value, or loss of palatability. A reasonable period for consumption shall consist of at least one third of the approximate total shelf life of the perishable food.**~~

~~**3.3.2. Responsibility for "Sell By" Date. A retailer who purchases prepackaged perishable food may upon written agreement with the person prepackaging such food determine, identify, and be responsible for the "sell by" date placed on or attached to each package of such food.**~~

~~**3.4. Manner of Expressing Date.**~~

~~**3.4.1. Month and Day, or Day of Week. A person described in Section 3.3.1. Reasonable Period for Consumption or 3.3.2. Responsibility for "Sell By" Date shall place or attach to each package of perishable food a date by month and day. However, bakery products with a shelf life of not more than seven days may be dated with the day of the week representing the last recommended day of sale.**~~

~~**3.4.2. The term "Sell By." The "sell by" date shall be displayed with the term "sell by" or words of similar import immediately preceding or immediately over the designated date unless a prominent notice is on the label describing the date as a "sell by" date and indicating the location of the date.**~~

~~**3.4.3. Abbreviation of Weekday. If the day of the week is solely designated as provided in Section 3.4.1. Month and Day, or Day of Week the name of the day may be abbreviated by the use of either the first two or first three letters of the name of the day.**~~

~~**3.4.4. Expression of Month and Day – Except as provided for in Section 3.4.1. Month and Day, or Day of Week the date shall be designated by:**~~

~~**(a) the first three letters of the month, preceded or followed by a numeral indicating the calendar day; or**~~

~~**(b) the month represented numerically followed by a numeral designation of the calendar day.**~~

~~**The month and day designation shall be separated by a period, slash, dash, or spacing. When a numeral designation of the first nine days of the month is used, the number shall include a zero as the first digit; for example, 01 or 03.**~~

~~**(Amended 1987)**~~

~~**3.4.5. Expression of the Year. The "sell by" date may include the year following the day if such year is expressed as a two or four-digit number separated as described in Section 3.4.4. Expression of Month and Day.**~~

Section 4. Sale of Semi Perishable and Long Shelf Life Food with "BEST If Used By" Opening Date.

4.1. "Best If Used By" Date – A ~~**manufacturer, processor, packer, re-packer, or other**~~ person who ~~**prepackages**~~ **packages** semi perishable or long shelf life food may place upon or attach to the package an open date ~~**providing**~~ **provided** it is designated by ~~**the**~~ **use of a** "BEST If Used By" date.

~~**4.2. Sale After Expiration of "Best If Used By" Date. A retail food establishment may sell or offer for sale food beyond the designated "best if used by" date provided the food is wholesome and the sensory physical quality standards for that food have not significantly diminished.**~~

4.~~3~~2. Manner of Expressing Date. – The "Best If Used By" date as required by Section 4.1. "Best If Used By" Date shall be placed upon or attached to each container or package and be limited to the terms "BEST If Used By" ~~**or words of similar import**~~ followed by or immediately over the date designated by the month and year unless a prominent notice is on the label describing the date as a "Best If Used By" date and indicating the location of the date. **The word "BEST" and the letter "B" in "By" must be shown in uppercase letters.** The date shall be designated by the first three letters of the month followed by a numeral indicating the year **(which may appear in either two or four digits, for example as "2021" or "21")**. The use of the day of the month is permissible provided that the day of the month is placed prior to the month; for example, "30 Jun ~~**8**~~**21"**~~.~~ **or "30 JUNE 2021".**

4.~~2~~3. Sale After Expiration of "BEST If Used By" Date. – A ~~**retail food establishment**~~ **person** may ~~**sell or**~~ offer**, expose** for sale**, sell, or donate** food **that bears an expired** ~~**beyond the designated "best if used by"**~~ date **(i.e., beyond the designated "BEST If Used By" date)** provided the food is wholesome and the sensory physical quality standards for that food have not significantly diminished.

Section 5. Placement of the "USE By" or "BEST If Used by Date

The date, whether "~~**sell**~~ **USE B**y" or "**B**est **I**f **U**sed **B**y" shall be printed, stamped, embossed, perforated, or otherwise shown on the package, label on the package, **label on the package** or tag attached to the package in a manner that is easily readable and separate from other information, graphics, or lettering so as to be clearly visible to a prospective purchaser. The date shall not be superimposed on other required information or obscured by other information, graphics, or pricing. Regardless of the type size used, the date shall be easily readable. These requirements do not preclude a supplemental notice elsewhere on a package describing and/or indicating the location of the date.

Section 6. Factors for the ~~Date~~ Determination of "USE By" or BEST If Used By" Dates

~~**A**~~ **The** person who~~**, as provided for in this regulation,**~~ places either the "~~**sell by**~~ **USE By**" ~~**date**~~ or "**B**est **I**f **U**sed **B**y" date on a package **label** shall determine the date by taking into consideration the food quality, characteristics, formulation, processing impact, packaging or container and other protective wrapping or coating, customary transportation, and storage and display conditions. For purposes of calculating this date, home storage conditions shall be ~~**considered to be similar to**~~ **like** those in the usual retail store except that the date for refrigerated food may be calculated by using a home storage temperature standard of ~~**40 °F (4.4 °C)**~~ **4.4 °C (40 °F).**

Section 7. Records

~~**A**~~ **The** person ~~**who is**~~ responsible for establishing the date for perishable, semi perishable, and long shelf life food shall keep a record of the method**s** used to determine the date**s**. A record revision is necessary whenever a factor affecting date determination is altered. Such record shall be retained for not less than six months after the most recent "~~**sell by**~~ **Use By**" or "**B**est **I**f **U**sed **B**y" date and shall be available during normal business hours for examination upon request by (**the title of the director or the responsible regulatory agency is added to the final regulation).** ~~**(agency name).**~~

Section 8. Exemptions

8.1. This regulation does not apply to perishable fruits or vegetables in a container permitting sensory examination.

8.2. This regulation does not apply to prepackaged perishable foods open dated according to requirements of federal law or regulation.

Note: ***For example, under the Food and Drug Administration (FDA) regulations (refer to 21 CFR 107.20(c)) package of infant formula must bear a "Use by date," indicating the month and year. The manufacturer, packer, or distributor determines the "use by" date based on tests or other information showing that infant formula, until that date, under the conditions of handling, storage, preparation, and use prescribed by the label direction, will, when consumed, contain not less than the quantity of each nutrient, as set forth on the label, and otherwise be of an acceptable quality but the FDA regulation does not specify the uppercase lettering for the "USE by" are required in Section 3.2. Manner of Expressing Date.***

Section 9. Preemption of Local, County, and Municipal Ordinance

A municipality or county shall not adopt or impose standards or requirements other than those provided for in this regulation.

Section 10. Effective Date

This regulation shall become effective **and enforceable** on ~~**and after**~~ **January 1, 2024.**

Note: To encourage a rapid transition to the uniform open dating and other requirements in this regulation any person may provide open dating on packages in compliance with this regulation and those packages may be offered or exposed for sale or sold in retail sales upon adoption of this regulation by the National Conference on Weights and Measures (NCWM).

Background/Discussion: See Appendix A, Page L&R-A174.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

BLOCK 5 ITEMS (B5) REMOVE OPEN DATING REGULATION FROM NIST HANDBOOK 130

Purpose:
Remove all reference to Open Dating enforcement from NIST Handbook 130 since it is typically enforced by Food Safety officials rather than Weights and Measures Officials.

B5: WAM-1 Section 9. Requirements for Open Dating and Section 12. Powers and Duties of the Director.

Source:
Southern Weights and Measures Association (2019)

Item Under Consideration:
Amend NIST Handbook 130 Uniform Weights and Measures Law as follows:

~~**Section 9. Requirements for Open Dating** [*NOTE 3*, page 20]~~

~~**The Uniform Open Dating Regulation as adopted by the NCWM and published in the National Institute of Standards and Technology Handbook 130, "Uniform Laws and Regulations," and supplements thereto or revisions thereof, shall apply to open dating in the state, except insofar as modified or rejected by regulation.**~~
~~**(Added 1983)**~~

And,

Section 12. Powers and Duties of the Director

The Director shall:

(a) maintain traceability of the state standards as demonstrated through laboratory accreditation or recognition;

(Amended 2005)

(b) enforce the provisions of this Act;

(c) issue reasonable regulations for the enforcement of this Act, which regulations shall have the force and effect of law;

(d) establish labeling requirements, establish requirements for the presentation of cost per unit information, establish standards of weight, measure, or count, and reasonable standards of fill for any packaged commodity; ~~**and establish requirements for open dating information;**~~

(Amended 20XX)

[Renumber remaining sections and paragraphs.]

B5: ODR-2 Uniform Open Dating Regulation

Source:
Southern and Western Weights and Measures Associations (2019)

Item Under Consideration:
Amend NIST Handbook 130 by deleting the Uniform Open Dating Regulation as follows:

~~E. Uniform Open Dating Regulation~~ [*NOTE 1*, page 159]

~~Section 1. Purpose, Scope, and Application~~

~~**1.1. Purpose.** [*NOTE 1*, page 159] **The purpose of this regulation is to prescribe mandatory uniform date labeling of prepackaged, perishable foods and to prescribe optional uniform date labeling that must be used whenever a packager elects to use date labeling on prepackaged foods is intended for use and understanding by both distributors and consumers when judging food qualities.**~~

~~***NOTE 1: Alternatively, this regulation may be adopted to require uniformity of open dating of perishable foods whenever a packager voluntarily elects to use date labeling. In such instances Sections 1.1. Purpose and 3.1. "Sell By" Date are reworded in the following manner:***~~

~~***1.1. Purpose. The purpose of this regulation is to prescribe uniform date labeling that must be used whenever a packager elects to use date labeling on a prepackaged food. Open date labeling is intended for use and understanding by both distributors and consumers when judging food qualities.***~~

~~*3.1. "Sell By" Date. If a retail food establishment elects to sell or offer for sale a prepackaged perishable food identified with a "sell by" date, the "sell by" date used must be as prescribed by this regulation*~~

~~**1.2. Scope and Application. This regulation prescribes the manner of date labeling, the method of determining the appropriate date, required records, responsible persons, and the foods subject to this regulation. This regulation provides for the permissible sale of a regulated food after the expiration of the date on the label. This regulation does not apply to any food that is not prepackaged or is exempted by Section 8.**~~

~~Section 2. Definitions~~

~~**2.1. "Sell By" Date. A recommended last date of sale that permits a subsequent period before deterioration of qualities described in 2.2. Perishable Food, 2.3. Semi Perishable Food, and 2.4. Long Shelf Life Food.**~~

~~**2.2. Perishable Food. Any food having a significant risk of spoilage, loss of value, or loss of palatability within 60 days of the date of packaging.**~~

~~**2.3. Semi Perishable Food. Any food for which a significant risk of spoilage, loss of value, or loss of palatability occurs only after a minimum of 60 days, but within 6 months, after the date of packaging.**~~

~~**2.4. Long Shelf Life Food. Any food for which a significant risk of spoilage, loss of value, or loss of palatability does not occur sooner than 6 months after the date of packaging, including foods preserved by freezing, dehydrating, or being placed in a hermetically sealed container.**~~

~~**2.5. Prepackaged. Food packaged prior to being displayed or offered for retail sale.**~~

~~**2.6. "Best If Used By" Date. A date prior to deterioration of qualities described in 2.3. Semi Perishable Food and 2.4. Long Shelf Life Food.**~~

~~**2.7. Person. An individual, partnership, association, or corporation.**~~

~~Section 3. Sale of Perishable Food and Date Determination~~

~~**3.1. "Sell By" Date.** [*NOTE 1*, page 159] **A retail food establishment shall not sell or offer for sale a prepackaged perishable food unless it is identified with a "sell by" date as prescribed by this regulation.**~~

~~**3.2. Sale After Expiration of "Sell By" Date.**~~

~~**3.2.1. Advertisement. Perishable food shall not be offered for sale after the "sell by" date unless it is wholesome and advertised in a conspicuous manner as being offered for sale after the recommended last date of sale. The placement of a sign, sticker, or tag is acceptable for such advertising if it is easily readable and clearly identifies the perishable food as having passed the recommended last date of sale.**~~

~~**3.2.2. Responsibility for Advertisement. The retailer or final seller is responsible for the advertisement, described in Section 3.2.1. Advertisement, of a perishable food offered for sale after the recommended last date of sale.**~~

~~**3.3. Determination of "Sell By" Date.**~~

~~**3.3.1. Reasonable Period for Consumption. A manufacturer, processor, packer, re-packer, retailer, or other person who prepackages perishable food, shall determine a date that allows a reasonable period after sale for consumption of the food without physical spoilage, loss of value, or loss of palatability. A reasonable period for consumption shall consist of at least one third of the approximate total shelf life of the perishable food.**~~

~~**3.3.2. Responsibility for "Sell By" Date. – A retailer who purchases prepackaged perishable food may upon written agreement with the person prepackaging such food determine, identify, and be responsible for the "sell by" date placed on or attached to each package of such food.**~~

~~**3.4. Manner of Expressing Date.**~~

~~**3.4.1. Month and Day, or Day of Week. – A person described in Section 3.3.1. Reasonable Period for Consumption or 3.3.2. Responsibility for "Sell By" Date shall place or attach to each package of perishable food a date by month and day. However, bakery products with a shelf life of not more than seven days may be dated with the day of the week representing the last recommended day of sale.**~~

~~**3.4.2. The term "Sell By." – The "sell by" date shall be displayed with the term "sell by" or words of similar import immediately preceding or immediately over the designated date unless a prominent notice is on the label describing the date as a "sell by" date and indicating the location of the date.**~~

~~**3.4.3. Abbreviation of Weekday. – If the day of the week is solely designated as provided in Section 3.4.1. Month and Day, or Day of Week the name of the day may be abbreviated by the use of either the first two or first three letters of the name of the day.**~~

~~**3.4.4. Expression of Month and Day – Except as provided for in Section 3.4.1. Month and Day, or Day of Week the date shall be designated by**~~

~~**(a) the first three letters of the month, preceded or followed by a numeral indicating the calendar day; or**~~

~~**(b) the month represented numerically followed by a numeral designation of the calendar day**~~

~~**The month and day designation shall be separated by a period, slash, dash, or spacing. When a numeral designation of the first nine days of the month is used, the number shall include a zero as the first digit; for example, 01 or 03.**~~

~~**(Amended 1987)**~~

~~**3.4.5. Expression of the Year. – The "sell by" date may include the year following the day if such year is expressed as a two or four-digit number separated as described in Section 3.4.4. Expression of Month and Day.**~~

~~Section 4. Sale of Semi Perishable and Long Shelf Life Food~~

~~**4.1. "Best If Used By" Date – A manufacturer, processor, packer, re-packer, or other person who prepackages semi perishable or long shelf life food may place upon or attach to the package an open date providing it is designated by the "best if used by" date.**~~

~~**4.2. Sale After Expiration of "Best If Used By" Date. – A retail food establishment may sell or offer for sale food beyond the designated "best if used by" date provided the food is wholesome and the sensory physical quality standards for that food have not significantly diminished.**~~

~~**4.3. Manner of Expressing Date. – The "best if used by" date as required by Section 4.1. "Best If Used By" Date shall be placed upon or attached to each container or package and be limited to the terms "best if used by" or words of similar import followed by or immediately over the date designated by the month and year unless a prominent notice is on the label describing the date as a "best if used by" date and indicating the location of the date. The date shall be designated by the first three letters of the month followed by a numeral indicating the year. The use of the day of the month is permissible provided that the day of the month is placed prior to the month; for example, 30 Jun 81.**~~

~~Section 5. Placement of the Date~~

~~The date, whether "sell by" or "best if used by," shall be printed, stamped, embossed, perforated, or otherwise shown on the package, label on the package, or tag attached to the package in a manner that is easily readable and separate from other information, graphics, or lettering so as to be clearly visible to a prospective purchaser. The date shall not be superimposed on other required information or obscured by other information, graphics, or pricing. Regardless of the type size used, the date shall be easily readable. These requirements do not preclude a supplemental notice elsewhere on a package describing and/or indicating the location of the date.~~

~~Section 6. Factors for the Date Determination~~

~~A person who, as provided for in this regulation, places either the "sell by" date or "best if used by" date on a package shall determine the date by taking into consideration the food quality, characteristics, formulation, processing impact, packaging or container and other protective wrapping or coating, customary transportation, and storage and display conditions. For purposes of calculating this date, home storage conditions shall be considered to be similar to those in the usual retail store except that the date for refrigerated food may be calculated by using a home storage temperature standard of 40 °F (4.4 °C).~~

~~Section 7. Records~~

~~A person who is responsible for establishing the date for perishable, semi-perishable, and long shelf life food shall keep a record of the method used to determine the date. A record revision is necessary whenever a factor affecting date determination is altered. Such record shall be retained for not less than six months after the most recent "sell by" or "best if used by" date and shall be available during normal business hours for examination upon request by _____ (agency name).~~

~~Section 8. Exemptions~~

~~8.1. This regulation does not apply to perishable fruits or vegetables in a container permitting sensory examination.~~

~~8.2. This regulation does not apply to prepackaged perishable foods open dated according to requirements of federal law or regulation.~~

~~Section 9. Preemption of Local, County, and Municipal Ordinance~~

~~A municipality or county shall not adopt or impose standards or requirements other than those provided for in this regulation.~~

~~Section 10. Effective Date~~

~~This regulation shall become effective on and after _____.~~

Background/Discussion: See Appendix A, Page L&R-A178.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

BLOCK 2 ITEMS (B2) KEROSENE, LPG, AND FUELS, LUBRICANTS AND AUTOMOTIVE PRODUCTS, CNG, LNG AND DEF

Source:
Archer Daniels Midland Corporation (2018)

The items in this block were assigned to the Fuels and Lubricants Subcommittee. After considering the comments received on the original items in the past year and documents posted related to the items (found on the NCWM Pub 16 archive website www.ncwm.net/meetings/annual/archive#2018) the focus group significantly modified the proposals. The focus group presented the new proposals to FALS.

B2: MOS-1 A Uniform Regulation for the Method of Sale of Commodities, Background and Sections Related to Kerosene, LPG, and Fuels, Lubricants and Automotive Products, CNG, LNG and DEF

FALS agreed to replace the MOS items previously in Block 2 with the new item shown below identified as MOS-1.

Item Under Consideration:
Amend NIST Handbook 130 Uniform Regulation for the Method of Sale of Commodities as follows:

B. Uniform Regulation for the Method of Sale of Commodities

as adopted by
The National Conference on Weights and Measures*

1. Background

The National Conference on Weights and Measures (NCWM) has long been concerned with the proper units of measurement to be used in the sale of all commodities. This approach has gradually broadened to concerns of standardized package sizes and general identity of particular commodities. Requirements for individual products were at one time made a part of the Weights and Measures Law or were embodied in separate individual Model Regulations. In 1971, this "Model State Method of Sale of Commodities Regulation" was established (renamed in 1983); amendments have been adopted by the Conference almost annually since that time.

Sections with "added 1971" dates refer to those sections that were originally incorporated in the Weights and Measures Law or in individual Model Regulations recommended by the NCWM. Subsequent dates reflect the actual amendment or addition dates.

The 1979 edition included, for the first time, requirements for items packaged in quantities of the International System of Units (SI), the modernized metric system, as well as continuing to present requirements for U.S. customary quantities. It should be stressed that nothing in this Regulation requires changing to the SI system of measurement. SI values are given for the guidance of those wishing to adopt new SI quantities of the commodities governed by this Regulation. SI means the International System of Units as established in 1960 by the General Conference on Weights and Measures and interpreted or modified for the United States by the Secretary of Commerce.

In 1984 NCWM adopted a section in the Uniform Regulation for the Method of Sale of Commodities requiring that motor fuel containing alcohol be labeled to disclose to the retail purchaser that the fuel contains alcohol. The delegates deemed this action necessary since motor vehicle manufacturers were qualifying their warranties with respect to some gasoline-alcohol blends, motor fuel users were complaining to weights and measures officials about fuel quality and vehicle performance, and the American Society for Testing and Materials (ASTM) had not yet finalized quality standards for oxygenated (which includes alcohol-containing) fuels. While many argued that weights and measures officials should not cross the line from quantity assurance programs

to programs regulating quality, the delegates were persuaded that the issue needed immediate attention. (See NIST HB 130, Uniform Fuels and Automotive Lubricants Inspection Law)

A Motor Fuels Task Force was appointed in 1984 to develop mechanisms for achieving uniformity in the evaluation and regulation of motor fuels. The Task Force developed the Uniform Motor Fuel Inspection Law (See the Uniform Fuels and Automotive Lubricants Inspection Law section of this handbook) and the Uniform Fuel and Automotive Lubricants Regulation to accompany the law. The Uniform Regulation for Fuels and Automotive Lubricants was adopted by the NCWM in 1995. (See NIST HB 130, Uniform Fuels and Automotive Lubricants Regulation.)

In 20XX the NCWM determined that any language within a regulation is not directly related to the method of sale shall be placed in the Uniform Regulations for Fuel and Automotive Lubricants Regulation and should be removed from the Method of Sale Regulations. The fuels and related products sections were consolidated into a subsection with notes directing the user to the Uniform Engine Fuels and Automotive Lubricants Regulation for additional information. A sunset date was set for the information not directly related to quantity determination.

This Regulation assimilates all of the actions periodically taken by the Conference with respect to certain food items, non-food items, and general method of sale concepts. Its format is such that it will permit the addition of individual items at the end of appropriate sections as the need arises. Its adoption as a regulation by individual jurisdictions will eliminate the necessity for legislative consideration of changes in the method of sale of particular commodities. Such items will be able to be handled through the normal regulation-making process.

2. Status of Promulgation

The table beginning on page 6 shows the status of adoption of the Uniform Regulation for the Method of Sale of Commodities.

*The National Conference on Weights and Measures (NCWM) is supported by the National Institute of Standards and Technology (NIST) in partial implementation of its statutory responsibility for "cooperation with the states in securing uniformity in weights and measures laws and methods of inspection."

B. Uniform Regulation for the Method of Sale of Commodities

Section 2. Non-Food Products [*NOTE 1*, page 103]

~~**2.19. Kerosene (Kerosine). All kerosene kept, offered, exposed for sale, or sold shall be identified as such and will include, with the word kerosene, an indication of its compliance with the latest version of the standard specification ASTM Standard D3699, "Standard Specification for Kerosine."**~~

~~**Example:**~~
~~**1K Kerosene; Kerosene - 2K.**~~
~~**(Added 1983)**~~

~~**2.19.1. Retail Sale from Bulk. All kerosene kept, offered, or exposed for sale and sold from bulk at retail shall be in terms of the gallon or liter.**~~
~~**(Added 2012)**~~

~~**2.20. Gasoline-Oxygenate Blends.**~~

~~**2.20.1. Method of Retail Sale. Type of Oxygenate must be Disclosed. All automotive gasoline or automotive gasoline-oxygenate blends kept, offered, or exposed for sale, or sold at retail containing at least 1.5 mass percent oxygen shall be identified as "with" or "containing" (or similar wording) the predominant**~~

oxygenate in the engine fuel. For example, the label may read "contains ethanol" or "with MTBE." The oxygenate contributing the largest mass percent oxygen to the blend shall be considered the predominant oxygenate. Where mixtures of only ethers are present, the retailer may post the predominant oxygenate followed by the phrase "or other ethers" or alternatively post the phrase "contains MTBE or other ethers." In addition, gasoline-methanol blend fuels containing more than 0.15 mass percent oxygen from methanol shall be identified as "with" or "containing" methanol. This information shall be posted on the upper 50 % of the dispenser front panel in a position clear and conspicuous from the driver's position in a type at least 12.7 mm (½ in) in height, 1.5 mm ($^{1}/_{16}$ in) stroke (width of type).

(Amended 1996)

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 when the fuel contains ethanol.

(b) For fuels that do not contain ethanol, information that complies with 40 CFR 80.1503 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)

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 80.1501. (For additional information, refer to Section 2.30.2. FTC Labeling Requirements.)

(Added 2018)

2.21. Liquefied Petroleum Gas. All liquefied petroleum gas, including, but not limited to propane, butane Error! Bookmark not defined.**, and mixtures thereof, shall be kept, offered, exposed for sale, or sold by the pound, metered cubic foot [*NOTE 7*, page 126] of vapor (defined as 1 ft^3 at 60 °F [15.6 °C]), or the gallon (defined as 231 in^3 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.**

(Added 1986)

NOTE 7: Sources: American National Standards Institute, Inc., "American National Standard for Gas Displacement Meters (500 Cubic Feet per Hour Capacity and Under)," First edition, 1974, and NIST Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices."

2.27. Retail Sales of Natural Gas Sold as a Vehicle Fuel.

2.27.1. Definitions.

2.27.1.1. Compressed Natural Gas (CNG). A gaseous fuel composed primarily of methane that is suitable for compression and dispensing into a fuel storage container(s) for use as an engine fuel.

(Amended 2016)

~~2.27.1.2. Gasoline Gallon Equivalent (GGE). Gasoline gallon equivalent (GGE) means 2.567 kg (5.660 lb) of compressed natural gas.~~

~~(Amended 2016)~~

~~2.27.1.3. Diesel Gallon Equivalent (DGE). Diesel gallon equivalent means 6.384 lb of compressed natural gas or 6.059 lb of liquefied natural gas.~~

~~(Added 2016)~~

~~2.27.1.4. Liquefied Natural Gas (LNG). Natural gas, which is predominantly methane, that has been liquefied at 162 °C (− 260 °F) at 14.696 psia and stored in insulated cryogenic fuel storage tanks for use as an engine fuel.~~

~~(Added 2016)~~

~~2.27.2. Method of Retail Sale and Dispenser Labeling.~~

~~2.27.2.1. Method of Retail Sale for Compressed Natural Gas. All compressed natural gas kept, offered, or exposed for sale and sold at retail as a vehicle fuel shall be measured in terms of mass, and indicted in the gasoline gallon equivalent (GGE), diesel gallon equivalent (DGE) units, or mass.~~

~~(Amended 2016)~~

~~2.27.2.2. Dispenser Labeling Compressed Natural Gas. All retail compressed natural gas dispensers shall be labeled with the equivalent conversion factor in terms of pounds (lb). The label shall be permanently and conspicuously displayed on the face of the dispenser and shall have the statement "1 Gasoline Gallon Equivalent (GGE) means 5.660 lb of Compressed Natural Gas" or "1 Diesel Gallon Equivalent (DGE) means 6.384 lb of Compressed Natural Gas" consistent with the method of sale used.~~

~~(Amended 2016)~~

~~2.27.2.3. Method of Retail Sale for Liquefied Natural Gas. All liquefied natural gas kept, offered, or exposed for sale and sold at retail as a vehicle fuel shall be measured in mass and indicated in diesel gallon equivalent (DGE) units or mass.~~

~~(Added 2016)~~

~~2.27.2.4. Dispenser Labeling of Retail Liquefied Natural Gas. All retail liquefied natural gas dispensers shall be labeled with the equivalent conversion factor in terms of pounds (lb). The label shall be permanently and conspicuously displayed on the face of the dispenser and shall have the statement "1 Diesel Gallon Equivalent (DGE) means 6.059 lb of Liquefied Natural Gas."~~

~~(Added 2016)~~

~~2.30. Ethanol Flex Fuel.~~

~~2.30.1. How to Identify Ethanol Flex Fuel. Ethanol flex fuel shall be identified as "Ethanol Flex Fuel or EXX Flex Fuel."~~

~~2.30.2. FTC Labeling Requirements. Ethanol flex fuel shall be identified and labeled in accordance with the Federal Trade Commission Automotive Fuel Ratings, Certification and Posting Rule, 16 CFR 306, as amended. (For additional information, refer to Section 2.20.3. EPA Labeling Requirements.)~~

~~(Added 2007) (Amended 2014 and 2018)~~

~~2.31. Biodiesel and Biodiesel Blends.~~

~~2.31.1. Identification of Product. Biodiesel shall be identified by the term "Biodiesel" with the designation "B100." Biodiesel Blends shall be identified by the term "Biodiesel Blend."~~

2.31.2. Labeling of Retail Dispensers.

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.

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.

2.31.2.3. Automotive Fuel Rating. Biodiesel and biodiesel blends shall be labeled with its automotive fuel rating in accordance with 16 CFR 306.

2.31.2.4. Biodiesel Blends. When biodiesel blends greater than 20 % by volume are offered by sale, each side of the dispenser where fuel can be delivered shall have a label conspicuously placed that states "Consult Vehicle Manufacturer Fuel Recommendations." The lettering of this legend shall not be less than 6 mm (¼ in) in height by 0.8 mm ($\frac{1}{32}$ in) stroke; block style letters and the color shall be in definite contrast to the background color to which it is applied.

2.31.3. Documentation for Dispenser Labeling Purposes. The retailer shall be provided, at the time of delivery of the fuel, a declaration of the volume percent biodiesel on an invoice, bill of lading, shipping paper, or other document. This documentation is for dispenser labeling purposes only; it is the responsibility of any potential blender to determine the amount of biodiesel in the diesel fuel prior to blending.

2.31.4. Exemption. Biodiesel blends that contain less than or equal to 5 % biodiesel by volume are exempt from the requirements of Sections 2.31.1. Identification of Product, 2.31.2. Labeling of Retail Dispensers, and 2.31.3. Documentation for Dispenser Labeling Purposes when it is sold as diesel fuel.

(Added 2008)

2.32. Retail Sales of Hydrogen Fuel (H).

2.32.1. Definitions for Hydrogen Fuel. A fuel composed of molecular hydrogen intended for consumption in a surface vehicle or electricity production device with an internal combustion engine or fuel cell.

(Amended 2012)

2.32.2. Method of Retail Sale and Dispenser Labeling. All hydrogen fuel kept, offered, or exposed for sale and sold at retail shall be in mass units in terms of the kilogram. The symbol for hydrogen vehicle fuel shall be the capital letter "H" (the word Hydrogen may also be used).

2.32.3. Retail Dispenser Labeling.

(a) A computing dispenser must display the unit price in whole cents on the basis of price per kilogram.

(b) The service pressure(s) of the dispenser must be conspicuously shown on the user interface in bar or the SI unit of pascal (Pa) (e.g., MPa).

(c) The product identity must be shown in a conspicuous location on the dispenser.

(d) National Fire Protection Association (NFPA) labeling requirements also apply.

(e) Hydrogen shall be labeled in accordance with 16 CFR 309 FTC Labeling Alternative Fuels.

2.32.4. Street Sign Prices and Advertisements.

~~(a) The unit price must be in terms of price per kilogram in whole cents (e.g., $3.49 per kg, not $3.499 per kg).~~

~~(b) The sign or advertisement must include the service pressure (expressed in megapascals) at which the dispenser(s) delivers hydrogen fuel (e.g., H35 or H70).~~

~~(Added 2010)~~

~~2.33. Oil.~~

~~2.33.1. Labeling of Vehicle Engine (Motor) Oil. Vehicle engine (motor) oil shall be labeled.~~

~~2.33.1.1. Viscosity. The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank, and any invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank, shall contain the viscosity grade classification preceded by the letters "SAE" in accordance with SAE International's latest version of SAE J300, "Engine Oil Viscosity Classification."~~

~~*NOTE: If an invoice or receipt from service on an engine has limited room for identifying the viscosity, brand, and service category, then abbreviated versions of each may be used on the invoice or receipt and the letters "SAE" may be omitted from the viscosity classification.*~~

~~(Note added 2014)~~

~~(Amended 2014)~~

~~2.33.1.2. Brand. The label on any vehicle engine (motor) oil container and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall contain the name, brand, trademark, or trade name of the vehicle engine (motor) oil.~~

~~(Amended 2014)~~

~~2.33.1.3. Engine Service Category. The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall contain the engine service category, or categories, displayed in letters not less than 3.18 mm (1/8 in) in height, as defined by the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")," API Publication 1509, "Engine Oil Licensing and Certification System," European Automobile Manufacturers Association (ACEA), "European Oil Sequences," or other Vehicle or Engine Manufacturer standards as approved in Section 2.33.1.3.1. Vehicle or Engine Manufacturer Standard.~~

~~(Amended 2014)~~

~~2.33.1.3.1. Vehicle or Engine Manufacturer Standard. The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall identify the specific vehicle or engine manufacturer standard, or standards, met in letters not less than 3.18 mm (1/8 in) in height. If the vehicle (motor) oil only meets a vehicle or engine manufacturer standard, the label must clearly identify that the oil is only intended for use where specifically recommended by the vehicle or engine manufacturer.~~

~~(Added 2014)~~

~~2.33.1.3.2. Inactive or Obsolete Service Categories. The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with the latest version of SAE J183, Appendix A, whenever the vehicle engine (motor) oil in the~~

~~container or in bulk does not meet an active API service category as defined by the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")." If a vehicle engine (motor) oil is identified as only meeting a vehicle or engine manufacturer standard, the labeling requirements in Section 2.33.1.3.1. Vehicle or Engine Manufacturer Standard applies.~~

~~(Amended 2014)~~

~~2.33.1.4. Tank Trucks or Rail Cars. Tank trucks, rail cars, and other types of delivery trucks that are used to deliver bulk vehicle engine (motor) oil are not required to display the SAE viscosity grade and service category or categories on such tank trucks, rail cars, and other types of delivery trucks.~~

~~(Amended 2013 and 2014)~~

~~2.33.1.5. Documentation. When the engine (motor) oil is sold in bulk, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery. This document must identify the quantity of bulk engine (motor) oil delivered as defined in Sections 2.33.1.1. Viscosity; 2.33.1.2. Brand; 2.33.1.3. Engine Service Category; the name and address of the seller and buyer; and the date and time of the sale. For inactive or obsolete service categories, the documentation shall also bear a plainly visible cautionary statement as required in Section 2.33.1.3.2. Inactive or Obsolete Service Categories. Documentation must be retained at the retail establishment for a period of not less than one year.~~

~~(Added 2013) (Amended 2014)~~

~~(Added 2012) (Amended 2013 and 2014)~~

~~2.34. Retail Sales of Electricity Sold as a Vehicle Fuel.~~

~~2.34.1. Definitions.~~

~~2.34.1.1. Electricity Sold as Vehicle Fuel. Electrical energy transferred to and/or stored onboard an electric vehicle primarily for the purpose of propulsion.~~

~~2.34.1.2. Electric Vehicle Supply Equipment (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors; the electric vehicle connectors; attachment plugs; and all other fittings, devices, power outlets, or apparatuses installed specifically for the purpose of measuring, delivering, and computing the price of electrical energy delivered to the electric vehicle.~~

~~2.34.1.3. Fixed Service. Service that continuously provides the nominal power that is possible with the equipment as it is installed.~~

~~2.34.1.4. Variable Service. Service that may be controlled resulting in periods of reduced, and/or interrupted transfer of electrical energy.~~

~~2.34.1.5. Nominal Power. Refers to the "intended" or "named" or "stated" as opposed to "actual" rate of transfer of electrical energy (i.e., power).~~

~~2.34.2. Method of Sale. All electrical energy kept, offered, or exposed for sale and sold at retail as a vehicle fuel shall be in units in terms of the megajoule (MJ) or kilowatt-hour (kWh). In addition to the fee assessed for the quantity of electrical energy sold, fees may be assessed for other services; such fees may be based on time measurement and/or a fixed fee.~~

~~2.34.3. Retail Electric Vehicle Supply Equipment (EVSE) Labeling.~~

~~(a) A computing EVSE shall display the unit price in whole cents (e.g., $0.12) or tenths of one cent (e.g., $0.119) on the basis of price per megajoule (MJ) or kilowatt-hour (kWh). In cases where the~~

~~electrical energy is unlimited or free of charge, this fact shall be clearly indicated in place of the unit price.~~

~~(b) For fixed service applications, the following information shall be conspicuously displayed or posted on the face of the device:~~

~~(1) the level of EV service expressed as the nominal power transfer (i.e., nominal rate of electrical energy transfer), and~~

~~(2) the type of electrical energy transfer (e.g., AC, DC, wireless).~~

~~(c) For variable service applications, the following information shall be conspicuously displayed or posted on the face of the device:~~

~~(1) the type of delivery (i.e., variable);~~

~~(2) the minimum and maximum power transfer that can occur during a transaction, including whether service can be reduced to zero;~~

~~(3) the condition under which variations in electrical energy transfer will occur; and~~

~~(4) the type of electrical energy transfer (e.g., AC, DC, wireless).~~

~~(d) Where fees will be assessed for other services in direct connection with the fueling of the vehicle, such as fees based on time measurement and/or a fixed fee, the additional fees shall be displayed.~~

~~(e) The EVSE shall be labeled in accordance with 16 CFR 309 – FTC Labeling Requirements for Alternative Fuels and Alternative Fueled Vehicles.~~

~~(f) The EVSE shall be listed and labeled in accordance with the National Electric Code® (NEC) NFPA 70, Article 625 Electric Vehicle Charging Systems (www.nfpa.org).~~

~~2.34.4. Street Sign Prices and Other Advertisements. Where electrical energy unit price information is presented on street signs or in advertising other than on EVSE:~~

~~(a) The electrical energy unit price shall be in terms of price per megajoule (MJ) or kilowatt-hour (kWh) in whole cents (e.g., $0.12) or tenths of one cent (e.g., $0.119). In cases where the electrical energy is unlimited or free of charge, this fact shall be clearly indicated in place of the unit price.~~

~~(b) In cases where more than one electrical energy unit price may apply over the duration of a single transaction to sales to the general public, the terms and conditions that will determine each unit price and when each unit price will apply shall be clearly displayed.~~

~~(c) For fixed service applications, the following information shall be conspicuously displayed or posted:~~

~~(1) the level of EV service expressed as the nominal power transfer (i.e., nominal rate of electrical energy transfer), and~~

~~(2) the type of electrical energy transfer (e.g., AC, DC, wireless).~~

~~(d) For variable service applications, the following information shall be conspicuously displayed or posted:~~

~~(1) the type of delivery (i.e., variable);~~

~~(2) the minimum and maximum power transfer that can occur during a transaction, including whether service can be reduced to zero;~~

~~(3) the conditions under which variations in electrical energy transfer will occur; and~~

~~(4) the type of electrical energy transfer (e.g., AC, DC, wireless).~~

~~Where fees will be assessed for other services in direct connection with the fueling of the vehicle, such as fees based on time measurement and/or a fixed fee, the additional fees shall be included on all street signs or other advertising.~~

~~(Added 2013)~~

~~2.35. Diesel Exhaust Fluid (DEF).~~

~~2.35.1. Definition.~~

~~2.35.1.1. Diesel Exhaust Fluid (DEF). A preparation of aqueous urea [(NH2)2CO], containing 32.5 % by mass of technically pure urea in high purity water with quality characteristics defined by the latest version of ISO 22241, "Diesel engines - NOx reduction agent AUS 32."~~

~~2.35.2. Labeling of Diesel Exhaust Fluid (DEF). DEF shall be labeled.~~

~~2.35.2.1. Retail Dispenser Labeling. A label shall be clearly and conspicuously placed on the front panel of the Diesel Exhaust Fluid dispenser stating "for operation of selective catalytic reduction (SCR) converters in motor vehicles with diesel engines."~~

~~2.35.2.2. Documentation for Retailers of Bulk Product. A DEF supplier shall provide, at the time of delivery of the bulk shipment of DEF, identification of the fluid's origin including the name of the fluid manufacturer, the brand name, trade name, or trademark, and a statement identifying the fluid as DEF conforming to specifications given in the latest version of ISO 22241, "Diesel engines - NOx reduction agent AUS 32." This information shall be provided by the supplier on an invoice, bill of lading, shipping paper, or other document.~~

~~2.35.2.3. Labeling of Packaged Product. Any diesel exhaust fluid retail package shall bear a label that includes the name of the fluid manufacturer, the brand name, trade name, or trademark, a statement identifying the fluid as DEF conforming to specifications given in the latest version of ISO 22241 "Diesel engines - NOx reduction agent AUS 32," and the statement, "It is recommended to store DEF between 5 °C to 30 °C (23 °F to 86 °F)."~~

~~2.35.2.4. Documentation for Bulk Deliveries. A carrier that transports or accepts for transportation any bulk shipment by tank truck, freight container, cargo tank, railcar, or any other vehicle used to transport or deliver bulk quantities of DEF shall, at the time of delivery of the DEF, provide identification of the fluid's origin including the name of the fluid manufacturer, the brand name, trade name, or trademark, and a statement identifying the fluid as DEF conforming to specifications given in the latest version of ISO 22241, "Diesel engines - NOx reduction agent AUS 32." This information shall be provided to the recipient on an invoice, bill of lading, shipping paper, or other document.~~

~~Effective date shall be January 1, 2016.~~

~~(Added 2014)~~

~~2.36. Transmission Fluid.~~

~~2.36.1. Products for Use in Lubricating Transmissions. Transmission fluids shall meet the original equipment manufacturer's requirements for those transmissions or have demonstrated performance claims to be suitable for use in those transmissions. Where a fluid can be licensed against an original equipment manufacturer's specification, evidence of current licensing by the marketer is acceptable~~

~~documentation of performance against the specification. In the absence of a license from the original equipment manufacturer, adherence to the original equipment manufacturer's recommended requirements shall be assessed after testing per relevant methods available to the lubricants industry and the state regulatory agency. Suitability for use claims shall be based upon appropriate field, bench, and/or transmission rig testing. Any manufacturer of a transmission fluid making suitable-for-use claims shall provide, upon request by a duly authorized representative of the Director, credible documentation of such claims. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims may be requested in confidence by a duly authorized representative of the Director. Supporting data may be supplied directly to the Director's office by the additive supplier(s).~~

~~(Added 2017)~~

~~2.36.1.1. Conformance. Conformance of a fluid per Section 2.36.1. Products for Use in Lubricating Transmissions does not absolve the obligations of a fluid licensee with respect to the licensing original equipment manufacturer or the original equipment manufacturer's licensing agent(s), where relevant.~~

~~(Added 2017)~~

~~2.36.1.2. Transmission Fluid Additives. Any material offered for sale or sold as an additive to transmission fluids shall be compatible with the transmission fluid to which it is added, and shall meet all performance claims as stated on the label or published on any website referenced by the label. Any manufacturer of any such product sold in this state shall provide, upon request by a duly authorized representative of the Director, documentation of any claims made on their product label or published on any website referenced by the label.~~

~~(Added 2017)~~

~~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, kegs, drums, and intermediate bulk containers (IBCs). In addition, each container of transmission fluid shall be labeled with the following:~~

~~(a) the brand name;~~

~~(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 (for example, 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.~~

~~(Added 2017)~~

~~2.36.2.2. Identification on Documentation. – Transmission fluid sold in bulk shall be identified on the manufacturer, packer, seller, or distributor invoice, bill of lading, shipping paper, or other documentation with the information listed below:~~

~~(a) the brand name;~~

~~(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 or reference to where these claims may be viewed (for example, 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.~~

~~(Added 2017)~~

~~2.36.2.3. Identification on Service Provider Documentation. Transmission fluid installed from a bulk tank at time of transmission service shall be identified on the customer invoice with the information listed below:~~

~~(a) the brand name;~~

~~(b) the name and place of business of the service provider;~~

~~(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 or reference to where these claims may be viewed (for example, 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.~~

~~(Added 2017)~~

~~2.36.2.4. Bulk Delivery. When the transmission fluid is sold in bulk, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery. This document must identify the fluid as defined in Section 2.36.2.2. Identification on Documentation.~~

~~(Added 2017)~~

~~2.36.2.5. Storage Tank Labeling. Each storage tank of transmission fluid shall be labeled with the following:~~

~~(a) the brand name;~~

~~(b) the primary performance claim or claims met by the fluid or reference to where these claims may be viewed (for example, 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.~~

~~(Added 2017)~~

~~2.36.3. Documentation of Claims Made Upon Product Label. Any manufacturer, packer, or distributor of any product subject to this article and sold in this state shall provide, upon request of duly authorized~~

~~representatives of the Director, credible documentation of any claim made upon their product label, including claims made on any website referenced by said label. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims may be requested in confidence by a duly authorized representative of the Director. Supporting data may be supplied directly to the Director's office by the additive supplier(s).~~

~~(Added 2017)~~

~~(Added 2017)~~

[Current Sections 3. General, Section 4. Revocation of Conflicting Regulations, and Section 5. Effective Date be renumbered editorially by NIST]

Section 3. Method of Sale of Fuels, Lubricants, and Automotive Products

3.1. General Information

3.1.1. Definitions. – For additional information on definitions refer to NIST Handbook 130, Uniform Fuels and Automotive Lubricants Regulation, Section 1. Definitions

3.1.2. Specifications. – For additional information specifications refer to NIST Handbook 130, Uniform Fuels and Automotive Lubricants Regulations, Section 2. Standard Specifications.

3.1.3. Identification, Classification, and Labeling. – For additional information on Identification, Classification and Labeling refer to NIST Handbook 130, Uniform Fuels and Automotive Lubricants, Section 3. Classification and Method of Sale.

3.2. The fuels, lubricants and automotive products below shall be sold by liquid measure. (see NIST Handbook 130, Uniform Weights and Measures Law, Section 17. Method of Sale.)

3.2.1. Gasoline and Gasoline-Oxygenate Blends.

3.2.2. Ethanol Flex Fuel.

3.2.3. Biodiesel and biodiesel blends.

3.2.4. Oil.

3.2.5. Diesel Exhaust fluid (DEF).

3.2.6. TTransmission Fluid.

3.2.7. Diesel fuel.

3.2.8. Aviation turbine fuels.

3.2.9. Aviation gasoline.

3.2.10. Fuel Oils.

3.2.11. M85.

3.3. The fuels, lubricants and automotive products below shall be sold in the manner described.

3.3.1. Retail Sale of Kerosene from Bulk. – All kerosene kept, offered, or exposed for sale and sold from bulk at retail shall be in terms of the gallon or liter.

(Added 2012)

3.3.2. 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 [NOTE 7, page 126] of vapor (defined as 1 ft^3 at 60 °F [15.6 °C]), or the gallon (defined as 231 in^3 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.

(Added 1986)

NOTE X: Sources: American National Standards Institute, Inc., "American National Standard for Gas Displacement Meters (500 Cubic Feet per Hour Capacity and Under)," First edition, 1974, and NIST Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices."

3.3.3. Retail Sales of Natural Gas Sold as a Vehicle Fuel.

3.3.3.1. Definitions.

3.3.3.1.1. Compressed Natural Gas (CNG). – A gaseous fuel composed primarily of methane that is suitable for compression and dispensing into a fuel storage container(s) for use as an engine fuel.

(Amended 2016)

3.3.3.1.2. Gasoline Gallon Equivalent (GGE). – Gasoline gallon equivalent (GGE) means 2.567 kg (5.660 lb) of compressed natural gas.

(Amended 2016)

3.3.3.1.3. Diesel Gallon Equivalent (DGE). – Diesel gallon equivalent means 6.384 lb of compressed natural gas or 6.059 lb of liquefied natural gas.

(Added 2016)

3.3.3.1.4. Liquefied Natural Gas (LNG). – Natural gas, which is predominantly methane, that has been liquefied at – 162 °C (− 260 °F) at 14.696 psia and stored in insulated cryogenic fuel storage tanks for use as an engine fuel.

(Added 2016)

3.3.3.2. Method of Retail Sale and Dispenser Labeling.

3.3.3.2.1. Method of Retail Sale for Compressed Natural Gas. – All compressed natural gas kept, offered, or exposed for sale and sold at retail as a vehicle fuel shall be measured in terms of mass, and indicted in the gasoline gallon equivalent (GGE), diesel gallon equivalent (DGE) units, or mass.

(Amended 2016)

3.3.3.2.2. Dispenser Labeling Compressed Natural Gas. – All retail compressed natural gas dispensers shall be labeled with the equivalent conversion factor in terms of pounds (lb). The label shall be permanently and conspicuously displayed on the face of the dispenser and shall have the statement "1 Gasoline Gallon Equivalent (GGE) means 5.660 lb of Compressed Natural Gas" or "1 Diesel Gallon Equivalent (DGE) means 6.384 lb of Compressed Natural Gas" consistent with the method of sale used.

(Amended 2016)

3.3.3.2.3. Method of Retail Sale for Liquefied Natural Gas. – All liquefied natural gas kept, offered, or exposed for sale and sold at retail as a vehicle fuel shall be measured in mass and indicated in diesel gallon equivalent (DGE) units or mass.

(Added 2016)

3.3.3.2.4. Dispenser Labeling of Retail Liquefied Natural Gas. – All retail liquefied natural gas dispensers shall be labeled with the equivalent conversion factor in terms of pounds (lb). The label shall be permanently and conspicuously displayed on the face of the dispenser and shall have the statement "1 Diesel Gallon Equivalent (DGE) means 6.059 lb of Liquefied Natural Gas."

(Added 2016)

3.3.4. Retail Sales of Hydrogen Fuel (H).

3.3.4.1. Method of Retail Sale and Dispenser Labeling. – All hydrogen fuel kept, offered, or exposed for sale and sold at retail shall be in mass units in terms of the kilogram. The symbol for hydrogen vehicle fuel shall be the capital letter "H" (the word Hydrogen may also be used).

3.3.4.2. Method of Retail Sale and Dispenser Labeling. – All hydrogen fuel kept, offered, or exposed for sale and sold at retail shall be in mass units in terms of the kilogram. The symbol for hydrogen vehicle fuel shall be the capital letter "H" (the word Hydrogen may also be used).

3.3.4.3. Retail Dispenser Labeling.

(a) A computing dispenser must display the unit price in whole cents on the basis of price per kilogram.

(b) The service pressure(s) of the dispenser must be conspicuously shown on the user interface in bar or the SI unit of pascal (Pa) (e.g., MPa).

(c) The product identity must be shown in a conspicuous location on the dispenser.

(d) National Fire Protection Association (NFPA) labeling requirements also apply.

(e) Hydrogen shall be labeled in accordance with 16 CFR 309 – FTC Labeling Alternative Fuels.

3.3.4.4. Street Sign Prices and Advertisements.

(a) The unit price must be in terms of price per kilogram in whole cents (e.g., $3.49 per kg, not $3.499 per kg).

(b) The sign or advertisement must include the service pressure (expressed in megapascals) at which the dispenser(s) delivers hydrogen fuel (e.g., H35 or H70).

(Added 2010)

3.3.5. Retail Sales of Electricity Sold as a Vehicle Fuel.

3.3.5.1. Definitions.

3.3.5.1.1. Electricity Sold as Vehicle Fuel. – Electrical energy transferred to and/or stored onboard an electric vehicle primarily for the purpose of propulsion.

3.3.5.1.2. Electric Vehicle Supply Equipment (EVSE). – The conductors, including the ungrounded, grounded, and equipment grounding conductors; the electric vehicle connectors; attachment plugs;

and all other fittings, devices, power outlets, or apparatuses installed specifically for the purpose of measuring, delivering, and computing the price of electrical energy delivered to the electric vehicle.

3.3.5.1.3. Fixed Service. – Service that continuously provides the nominal power that is possible with the equipment as it is installed.

3.3.5.1.4. Variable Service. – Service that may be controlled resulting in periods of reduced, and/or interrupted transfer of electrical energy.

3.3.5.1.5. Nominal Power. – Refers to the "intended" or "named" or "stated" as opposed to "actual" rate of transfer of electrical energy (i.e., power).

3.3.5.2. Method of Sale. – All electrical energy kept, offered, or exposed for sale and sold at retail as a vehicle fuel shall be in units in terms of the megajoule (MJ) or kilowatt-hour (kWh). In addition to the fee assessed for the quantity of electrical energy sold, fees may be assessed for other services; such fees may be based on time measurement and/or a fixed fee.

3.3.5.3. Retail Electric Vehicle Supply Equipment (EVSE) Labeling.

(a) A computing EVSE shall display the unit price in whole cents (e.g., $0.12) or tenths of one cent (e.g., $0.119) on the basis of price per megajoule (MJ) or kilowatt-hour (kWh). In cases where the electrical energy is unlimited or free of charge, this fact shall be clearly indicated in place of the unit price.

(b) For fixed service applications, the following information shall be conspicuously displayed or posted on the face of the device:

(1) the level of EV service expressed as the nominal power transfer (i.e., nominal rate of electrical energy transfer), and

(2) the type of electrical energy transfer (e.g., AC, DC, wireless).

(c) For variable service applications, the following information shall be conspicuously displayed or posted on the face of the device:

(1) the type of delivery (i.e., variable);

(2) the minimum and maximum power transfer that can occur during a transaction, including whether service can be reduced to zero;

(3) the condition under which variations in electrical energy transfer will occur; and

(4) the type of electrical energy transfer (e.g., AC, DC, wireless).

(d) Where fees will be assessed for other services in direct connection with the fueling of the vehicle, such as fees based on time measurement and/or a fixed fee, the additional fees shall be displayed.

(e) The EVSE shall be labeled in accordance with 16 CFR 309 – FTC Labeling Requirements for Alternative Fuels and Alternative Fueled Vehicles.

(f) The EVSE shall be listed and labeled in accordance with the National Electric Code® (NEC) NFPA 70, Article 625 Electric Vehicle Charging Systems (www.nfpa.org).

3.3.5.4. Street Sign Prices and Other Advertisements. – Where electrical energy unit price information is presented on street signs or in advertising other than on EVSE:

(a) The electrical energy unit price shall be in terms of price per megajoule (MJ) or kilowatt-hour (kWh) in whole cents (e.g., $0.12) or tenths of one cent (e.g., $0.119). In cases where the electrical energy is unlimited or free of charge, this fact shall be clearly indicated in place of the unit price.

(b) In cases where more than one electrical energy unit price may apply over the duration of a single transaction to sales to the general public, the terms and conditions that will determine each unit price and when each unit price will apply shall be clearly displayed.

(c) For fixed service applications, the following information shall be conspicuously displayed or posted:

(1) the level of EV service expressed as the nominal power transfer (i.e., nominal rate of electrical energy transfer), and

(2) the type of electrical energy transfer (e.g., AC, DC, wireless).

(d) For variable service applications, the following information shall be conspicuously displayed or posted:

(1) the type of delivery (i.e., variable);

(2) the minimum and maximum power transfer that can occur during a transaction, including whether service can be reduced to zero;

(3) the conditions under which variations in electrical energy transfer will occur; and

(4) the type of electrical energy transfer (e.g., AC, DC, wireless).

Where fees will be assessed for other services in direct connection with the fueling of the vehicle, such as fees based on time measurement and/or a fixed fee, the additional fees shall be included on all street signs or other advertising.

(Added 2013)

3.4. Classification, Identification, and Labeling for Sale.

In sunset publication year of 20XX to remove this section: The items in Section 3.4. Classification Identification and Labeling for Sale are also included as part the Uniform Fuels and Automotive Lubricants Regulation in Section 3. Method of Sale of Fuels, Lubricants, and Automotive Products. Starting with the 20XX NIST Handbook 130 the items in Section 3.4. Classification, Identification, and Labeling for Sale will no longer be included and only found in G. The Uniform Fuels and Automotive Lubricants Regulation.

3.4.1. Kerosene (Kerosine). – All kerosene kept, offered, exposed for sale, or sold shall be identified as such and will include, with the word kerosene, an indication of its compliance with the latest version of ASTM Standard D3699, "Standard Specification for Kerosine."

Example:
1K Kerosene; Kerosene - 2K.

(Added 1983) (Included through 20XX Handbook)

3.4.2. Gasoline-Oxygenate Blends.

3.4.2.1. Labeling for Retail Sale. – Type of Oxygenate must be Disclosed. – All automotive gasoline or automotive gasoline-oxygenate blends kept, offered, or exposed for sale, or sold at retail containing at least 1.5 mass percent oxygen shall be identified as "with" or "containing" (or similar wording) the predominant oxygenate in the engine fuel. For example, the label may read "contains ethanol" or

"with MTBE." The oxygenate contributing the largest mass percent oxygen to the blend shall be considered the predominant oxygenate. Where mixtures of only ethers are present, the retailer may post the predominant oxygenate followed by the phrase "or other ethers" or alternatively post the phrase "contains MTBE or other ethers." In addition, gasoline-methanol blend fuels containing more than 0.15 mass percent oxygen from methanol shall be identified as "with" or "containing" methanol. This information shall be posted on the upper 50 % of the dispenser front panel in a position clear and conspicuous from the driver's position in a type at least 12.7 mm (½ in) in height, 1.5 mm ($^{1}/_{16}$ in) stroke (width of type).

(Amended 1996) (Included through 20XX Handbook)

3.4.2.2. 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 when the fuel contains ethanol.

(b) For fuels that do not contain ethanol, information that complies with 40 CFR 80.1503 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) (Included through 20XX Handbook)

3.4.2.3. 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 80.1501. (For additional information, refer to Section 3.4.3.2. FTC Labeling Requirements.)

(Added 2018) (Included through 20XX Handbook)

3.4.3. Ethanol Flex Fuel.

3.4.3.1. How to Identify Ethanol Flex Fuel. – Ethanol flex fuel shall be identified as "Ethanol Flex Fuel or EXX Flex Fuel."

3.4.3.2. FTC Labeling Requirements. – Ethanol flex fuel shall be identified and labeled in accordance with the Federal Trade Commission Automotive Fuel Ratings, Certification and Posting Rule, 16 CFR 306, as amended. (For additional information, refer to Section 2.20.3. EPA Labeling Requirements.)

(Added 2007) (Amended 2014 and 2018) (Included through 20XX Handbook)

3.4.4. Biodiesel and Biodiesel Blends.

3.4.4.1. Identification of Product. – Biodiesel shall be identified by the term "Biodiesel" with the designation "B100." Biodiesel Blends shall be identified by the term "Biodiesel Blend."

3.4.4.2. Labeling of Retail Dispensers.

3.4.4.2.1. 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.

3.4.4.2.2. 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.

3.4.4.2.3. Automotive Fuel Rating. – Biodiesel and biodiesel blends shall be labeled with its automotive fuel rating in accordance with 16 CFR 306.

3.4.4.2.4. Biodiesel Blends. – When biodiesel blends greater than 20 % by volume are offered by sale, each side of the dispenser where fuel can be delivered shall have a label conspicuously placed that states "Consult Vehicle Manufacturer Fuel Recommendations." The lettering of this legend shall not be less than 6 mm (¼ in) in height by 0.8 mm ($^{1}/_{32}$ in) stroke; block style letters and the color shall be in definite contrast to the background color to which it is applied.

3.4.4.3. Documentation for Dispenser Labeling Purposes. – The retailer shall be provided, at the time of delivery of the fuel, a declaration of the volume percent biodiesel on an invoice, bill of lading, shipping paper, or other document. This documentation is for dispenser labeling purposes only; it is the responsibility of any potential blender to determine the amount of biodiesel in the diesel fuel prior to blending.

3.4.4.4. Exemption. – Biodiesel blends that contain less than or equal to 5 % biodiesel by volume are exempt from the requirements of Sections 3.4.4.1. Identification of Product, 3.4.4.2. Labeling of Retail Dispensers, and 3.4.4.3. Documentation for Dispenser Labeling Purposes when it is sold as diesel fuel.

(Added 2008) (Included through 20XX Handbook)

3.4.5. Oil.

3.4.5.1. Labeling of Vehicle Engine (Motor) Oil. – Vehicle engine (motor) oil shall be labeled.

3.4.5.1.1. Viscosity. – The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank, and any invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank, shall contain the viscosity grade classification preceded by the letters "SAE" in accordance with SAE International's latest version of SAE J300, "Engine Oil Viscosity Classification."

NOTE: If an invoice or receipt from service on an engine has limited room for identifying the viscosity, brand, and service category, then abbreviated versions of each may be used on the invoice or receipt and the letters "SAE" may be omitted from the viscosity classification.

(Note added 2014)

(Amended 2014)

3.4.5.1.2. Brand. – The label on any vehicle engine (motor) oil container and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall contain the name, brand, trademark, or trade name of the vehicle engine (motor) oil.

(Amended 2014)

3.4.5.1.3. Engine Service Category. – The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall contain the engine service category, or categories, displayed in letters not less than 3.18 mm ($^{1}/_{8}$ in) in height, as defined by the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")," API Publication 1509, "Engine Oil Licensing and Certification System," European Automobile Manufacturers Association (ACEA), "European Oil Sequences," or other Vehicle or Engine

Manufacturer standards as approved in Section 3.4.5.1.3.1. Vehicle or Engine Manufacturer Standard.

(Amended 2014)

3.4.5.1.3.1. Vehicle or Engine Manufacturer Standard. – The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall identify the specific vehicle or engine manufacturer standard, or standards, met in letters not less than 3.18 mm ($^1/_8$ in) in height. If the vehicle (motor) oil only meets a vehicle or engine manufacturer standard, the label must clearly identify that the oil is only intended for use where specifically recommended by the vehicle or engine manufacturer.

(Added 2014)

3.4.5.1.3.2. Inactive or Obsolete Service Categories. – The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with the latest version of SAE J183, Appendix A,

whenever the vehicle engine (motor) oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")." If a vehicle engine (motor) oil is identified as only meeting a vehicle or engine manufacturer standard, the labeling requirements in Section 3.4.5.1.3.1. Vehicle or Engine Manufacturer Standard applies.

(Amended 2014)

3.4.5.1.4. Tank Trucks or Rail Cars. – Tank trucks, rail cars, and other types of delivery trucks that are used to deliver bulk vehicle engine (motor) oil are not required to display the SAE viscosity grade and service category or categories on such tank trucks, rail cars, and other types of delivery trucks.

(Amended 2013 and 2014)

3.4.5.1.5. Documentation. – When the engine (motor) oil is sold in bulk, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery. This document must identify the quantity of bulk engine (motor) oil delivered as defined in Sections 3.4.5.1.1. Viscosity; 3.4.5.1.2. Brand; 3.4.5.1.3. Engine Service Category; the name and address of the seller and buyer; and the date and time of the sale. For inactive or obsolete service categories, the documentation shall also bear a plainly visible cautionary statement as required in Section 3.4.5.1.3.2. Inactive or Obsolete Service Categories. Documentation must be retained at the retail establishment for a period of not less than one year.

(Added 2013) (Amended 2014)

(Added 2012) (Amended 2013 and 2014) (Included through 20XX Handbook)

3.4.6. Diesel Exhaust Fluid (DEF).

3.4.6.1. Definition.

3.4.6.1.1. Diesel Exhaust Fluid (DEF). – A preparation of aqueous urea [(NH2)2CO], containing 32.5 % by mass of technically-pure urea in high-purity water with quality characteristics defined by the latest version of ISO 22241, "Diesel engines - NOx reduction agent AUS 32."

3.4.6.2. Labeling of Diesel Exhaust Fluid (DEF). – DEF shall be labeled.

3.4.6.2.1. Retail Dispenser Labeling. – A label shall be clearly and conspicuously placed on the front panel of the Diesel Exhaust Fluid dispenser stating, "for operation of selective catalytic reduction (SCR) converters in motor vehicles with diesel engines."

3.4.6.2.2. Documentation for Retailers of Bulk Product. – A DEF supplier shall provide, at the time of delivery of the bulk shipment of DEF, identification of the fluid's origin including the name of the fluid manufacturer, the brand name, trade name, or trademark, and a statement identifying the fluid as DEF conforming to specifications given in the latest version of ISO 22241, "Diesel engines - NOx reduction agent AUS 32." This information shall be provided by the supplier on an invoice, bill of lading, shipping paper, or other document.

2.35.2.3. Labeling of Packaged Product. – Any diesel exhaust fluid retail package shall bear a label that includes the name of the fluid manufacturer, the brand name, trade name, or trademark, a statement identifying the fluid as DEF conforming to specifications given in the latest version of ISO 22241 "Diesel engines - NOx reduction agent AUS 32," and the statement, "It is recommended to store DEF between − 5°C to 30 °C (23 °F to 86 °F)."

2.35.2.4. Documentation for Bulk Deliveries. – A carrier that transports or accepts for transportation any bulk shipment by tank truck, freight container, cargo tank, railcar, or any other vehicle used to transport or deliver bulk quantities of DEF shall, at the time of delivery of the DEF, provide identification of the fluid's origin including the name of the fluid manufacturer, the brand name, trade name, or trademark, and a statement identifying the fluid as DEF conforming to specifications given in the latest version of ISO 22241, "Diesel engines - NOx reduction agent AUS 32." This information shall be provided to the recipient on an invoice, bill of lading, shipping paper, or other document.

Effective date shall be January 1, 2016.

(Added 2014) (Included through 20XX Handbook)

3.4.7. Transmission Fluid.

3.4.7.1. Products for Use in Lubricating Transmissions. – Transmission fluids shall meet the original equipment manufacturer's requirements for those transmissions or have demonstrated performance claims to be suitable for use in those transmissions. Where a fluid can be licensed against an original equipment manufacturer's specification, evidence of current licensing by the marketer is acceptable documentation of performance against the specification. In the absence of a license from the original equipment manufacturer, adherence to the original equipment manufacturer's recommended requirements shall be assessed after testing per relevant methods available to the lubricants industry and the state regulatory agency. Suitability for use claims shall be based upon appropriate field, bench, and/or transmission rig testing. Any manufacturer of a transmission fluid making suitable-for-use claims shall provide, upon request by a duly authorized representative of the Director, credible documentation of such claims. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims may be requested in confidence by a duly authorized representative of the Director. Supporting data may be supplied directly to the Director's office by the additive supplier(s).

(Added 2017)

3.4.7.1.1. Conformance. – Conformance of a fluid per Section 2.36.1. Products for Use in Lubricating Transmissions does not absolve the obligations of a fluid licensee with respect to the licensing original equipment manufacturer or the original equipment manufacturer's licensing agent(s), where relevant.

(Added 2017)

3.4.7.1.2. Transmission Fluid Additives. – Any material offered for sale or sold as an additive to transmission fluids shall be compatible with the transmission fluid to which it is added, and shall meet all performance claims as stated on the label or published on any website referenced by the

label. Any manufacturer of any such product sold in this state shall provide, upon request by a duly authorized representative of the Director, documentation of any claims made on their product label or published on any website referenced by the label.

(Added 2017)

3.4.7.2. Labeling and Identification of Transmission Fluid. – Transmission fluid shall be labeled or identified as described below.

(Added 2017)

3.4.7.2.1. 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, kegs, drums, and intermediate bulk containers (IBCs). In addition, each container of transmission fluid shall be labeled with the following:

(a) the brand name;

(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 (for example, 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.

(Added 2017)

3.4.7.2.2. Identification on Documentation. – Transmission fluid sold in bulk shall be identified on the manufacturer, packer, seller, or distributor invoice, bill of lading, shipping paper, or other documentation with the information listed below:

(a) the brand name;

(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 or reference to where these claims may be viewed (for example, 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.

(Added 2017)

3.4.7.2.3. Identification on Service Provider Documentation. – Transmission fluid installed from a bulk tank at time of transmission service shall be identified on the customer invoice with the information listed below:

(a) the brand name;

(b) the name and place of business of the service provider;

(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 or reference to where these claims may be viewed (for example, 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.

(Added 2017)

3.4.7.2.4. Bulk Delivery. – When the transmission fluid is sold in bulk, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery. This document must identify the fluid as defined in Section 2.36.2.2. Identification on Documentation.

(Added 2017)

3.4.7.2.5. Storage Tank Labeling. – Each storage tank of transmission fluid shall be labeled with the following:

(a) the brand name;

(b) the primary performance claim or claims met by the fluid or reference to where these claims may be viewed (for example, 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.

(Added 2017)

3.4.7.3. Documentation of Claims Made Upon Product Label. – Any manufacturer, packer, or distributor of any product subject to this article and sold in this state shall provide, upon request of duly authorized representatives of the Director, credible documentation of any claim made upon their product label, including claims made on any website referenced by said label. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims may be requested in confidence by a duly authorized representative of the Director. Supporting data may be supplied directly to the Director's office by the additive supplier(s).

(Added 2017)

(Added 2017) (Included through 20XX NIST Handbook 130)

[OTHER PARTS OF SEC. B WILL BE RENUMBERED EDITORIALLY]

B2: FLR-1 A Uniform Fuels and Automotive Lubricants Regulation, Background and various sections related to fuels.

FALS agreed to replace the FLR items previously in Block 2 with the new item shown below identified as FLR-1.

Item Under Consideration:
Amend NIST Handbook 130, Uniform Fuels and Automotive Lubricants Regulation as follows:

Section 3. Classification, Identification, and Labeling for ~~Method of~~ Sale

(Amended 20XX)

3.2.4 ~~Method of~~ Labeling for Retail Sale – Type of Oxygenate must be disclosed. All automotive gasoline or automotive gasoline-oxygenate blends, or racing gasoline kept, offered, or exposed for sale, or sold at retail containing more than one volume percent oxygenate shall be identified as "with" or "containing" (or similar wording) the predominant oxygenate in the engine fuel. For example, the label may read "contains ethanol" or "with methyl *tertiary*-butyl ether (MTBE)." The oxygenate contributing the largest mass percent oxygen to the blend shall be considered the predominant oxygenate. Where mixtures of only ethers are present, the retailer may post the predominant oxygenate followed by the phrase "or other ethers" or alternatively post the phrase "contains MTBE or other ethers." In addition, gasoline-methanol blends containing more than 0.3 % by volume methanol shall be identified as "with" or "containing" methanol. This information shall be posted on the upper 50 % of the dispenser front panel in a position clear and conspicuous from the driver's position in a type at least 12.7 mm (½ in) in height, 1.5 mm ($^1/_{16}$ in) stroke (width of type).

(Amended 20XX)

Background/Discussion: See Appendix A, Page L&R-A179.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

BLOCK 3 ITEMS (B3) ENGINE FUELS AND AUTOMOTIVE LUBRICANTS INSPECTION LAW, SECTION 8.6. METHOD OF SALE, SECTION 2.33 OIL. FUELS AND AUTOMOTIVE REGS. SECTIONS 2.12 ENGINE (MOTOR OIL), 3.13 OIL, AND 7.2. TEST METHODS AND REPRODUCIBILITY LIMITS

Source:
Independent Lubricant Manufacturers Association (ILMA) (2018)

Purpose:
Provide information to protect consumers from purchasing obsolete motor oils that can harm modern engines.

B3: FLL-1 A Section 8. Prohibited Acts

Item under Consideration:
Amend NIST Handbook 130, Uniform Fuels and Automotive Lubricants Inspection Law, Section 8.6. Prohibited Acts.

Section 8. Prohibited Acts

It shall be unlawful to:

8.1. Represent engine fuels, non-engine fuels, or automotive lubricants in any manner that may deceive or tend to deceive the purchaser as to the nature, brand, price, quantity, and/or quality of such products.
(Amended 1996 and 2008)

8.2. Fail to register an engine fuel designed for special use.

8.3. Submit incorrect, misleading, or false information regarding the registration of an engine fuel designed for special use.

8.4. Hinder or obstruct the Director in the performance of the Director's duties.

8.5. Represent an engine fuel, non-engine fuels, or automotive lubricant that is contrary to the provisions of this Act. (Amended 2008)

8.6. Represent automotive lubricants with an S.A.E. (Society of Automotive Engineers) viscosity grade or API (American Petroleum Institute) service classification other than those ~~**specified**~~ by the intended purchaser. (Added 1996)**(Amended 20XX)**

B3: MOS-4 A Section 2.33. Oil

Item Under Consideration:
Amend NIST Handbook 130, Uniform Method of Sale of Commodities Regulation as follows:

2.33. Oil.

2.33.1. Labeling of Vehicle Engine (Motor) Oil. – Vehicle engine (motor) oil shall be labeled.

2.33.1.1. Viscosity. – The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank, and any invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank, shall contain the viscosity grade classification preceded by the letters "SAE" in accordance with SAE International's latest version of SAE J300, "Engine Oil Viscosity Classification."

NOTE: *If an invoice or receipt from service on an engine has limited room for identifying the viscosity, brand, and service category, then abbreviated versions of each may be used on the invoice or receipt and the letters "SAE" may be omitted from the viscosity classification.*

(Note added 2014)

(Amended 2014)

2.33.1.2. Brand. – The label on any vehicle engine (motor) oil container and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall contain the name, brand, trademark, or trade name of the vehicle engine (motor) oil.

(Amended 2014)

2.33.1.3. Engine Service Category. – The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall contain the engine service category, or categories, displayed in letters not less than 3.18 mm ($^1/_8$ in) in height, as defined by the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")," API Publication 1509, "Engine Oil Licensing and Certification System," European Automobile Manufacturers Association (ACEA), "European Oil Sequences," or other Vehicle or Engine Manufacturer standards as approved in Section 2.33.1.3.1. Vehicle or Engine Manufacturer Standard.

(Amended 2014)

2.33.1.3.1. Vehicle or Engine Manufacturer Standard. – The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall identify the specific vehicle or engine manufacturer standard, or standards, met in letters not less than 3.18 mm ($^1/_8$ in) in height. If the vehicle (motor) oil only meets a vehicle or engine

manufacturer standard, the label must clearly identify that the oil is only intended for use where specifically recommended by the vehicle or engine manufacturer.

(Added 2014)

2.33.1.3.2. Inactive or Obsolete Service Categories. – ~~**The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with the latest version of SAE J183, Appendix A, whenever the vehicle engine (motor) oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")." If a vehicle engine (motor) oil is identified as only meeting a vehicle or engine manufacturer standard, the labeling requirements in Section 2.33.1.3.1. Vehicle or Engine Manufacturer Standard applies.**~~ **Whenever any vehicle engine (motor) oil in a container, receptacle, dispenser, storage tank or in bulk does not meet an active API service category as listed in the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")," the rear or rear-facing label of such vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall bear the plainly-visible, cautionary statement set forth in Appendix A of the latest version of SAE J183, and its front or forward-facing label and the invoice or receipt shall bear a plainly-visible, cautionary statement depicted in one of the applicable following three categories:**

(a) Labeling of obsolete oils for diesel-fueled engines:

Caution: SAE believes that this product does not meet the lubrication requirements of modern diesel engines. Significant harm to the engine and/or emission control systems is possible when using this product.

(b) Labeling of obsolete oils for gasoline-fueled engines:

Caution: SAE believes that this product does not meet the lubrication requirements of modern gasoline-fueled engines. Significant harm to the engine and/or emission control systems is possible when using this product.

(c) Labeling of obsolete oils defined by a vehicle or engine manufacturer standard

If a vehicle engine (motor) oil is identified as only meeting an obsolete vehicle or engine manufacturer standard, the following statement shall appear on any label and/or container used to sell or dispense the product:

Caution: The vehicle or engine manufacturer specifying the lubrication requirements of this engine considers this product obsolete. Significant harm to the engine and/or emission control systems is possible when using this product.

(Amended 2014 **and 20XX**)

2.33.1.4. Tank Trucks or Rail Cars. Tank trucks, rail cars, and other types of delivery trucks that are used to deliver bulk vehicle engine (motor) oil are not required to display the SAE viscosity grade and service category or categories on such tank trucks, rail cars, and other types of delivery trucks**. In lieu of such display requirements, the documentation defined in 2.33.1.5 shall be readily available for inspection.**

(Amended 2013 ~~**and**~~ 2014 **and 20XX**)

2.33.1.5. Documentation. –When the engine (motor) oil is sold in bulk, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery. This document must identify the quantity of

bulk engine (motor) oil delivered as defined in Sections 2.33.1.1. Viscosity**; grade as defined by the latest version of SAE J300 "Engine Oil Viscosity Classification,"** 2.33.1.2. Brand, 2.33.1.3. Engine Service Category; the name and address of the seller and buyer; and, the date and time of the sale. For inactive or obsolete service categories, the documentation shall also ~~**bear a**~~ **have** plainly visible cautionary statement**s** as required in Section 2.33.1.3.2. Inactive or Obsolete Service Categories. Documentation must be retained at the retail establishment for a period of not less than one year.

(Added 2013) (Amended 2014 **and 20XX**)

(Added 2012) (Amended 2013 ~~**and**~~ 2014 **and 20XX**)

B3: FLR-5 A Sections 2.12. Engine (Motor) Oil, 3.13. Oil and 7.2. Reproducibility Limits.

Item Under Consideration:
Amend NIST Handbook 130, Uniform Fuels and Automotive Lubricants Regulation as follows:

2.12. Engine (Motor) Oil. – Shall not be sold or distributed for use unless the product conforms to the following specifications:

(a) performance claims **made against active performance categories, as** listed on the label shall be evaluated against the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification," API 1509 "Engine Oil Licensing and Certification System," European Automobile Manufacturers' Association (ACEA), "European Oil Sequences," or other "Vehicle or Engine Manufacturer Standards" as applicable;

(b) performance claims made against any obsolete performance categories, as listed on the label, shall be determined to meet the requirements of Section 3.13.1.3.2. "Inactive or Obsolete Service Categories" by displaying the appropriate cautionary labeling and

(c) the product shall meet its labeled viscosity grade specification as specified in the latest version of SAE J300, "Engine Oil Viscosity Classification."

(Added 2004) (Amended 2014 **and 20XX**)

3.13. Oil.

3.13.1. Labeling of Vehicle Engine (Motor) Oil Required.

3.13.1.1. Viscosity. –The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall contain the viscosity grade classification preceded by the letters "SAE" in accordance with the SAE International's latest version of SAE J300, "Engine Oil Viscosity Classification."

(Amended 2012 and 2014)

3.13.1.2. Brand. –The label on any vehicle engine (motor) oil container and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall contain the name, brand, trademark, or trade name of the vehicle engine (motor) oil.

(Added 2012 and 2014)

3.13.1.3. Engine Service Category. –The label on any vehicle engine (motor) oil container, receptacle, dispenser or storage tank and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall contain the engine service category, or categories, displayed in letters not less than 3.18 mm (1/8 in) in height, as defined by the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")" API Publication 1509, "Engine Oil Licensing and Certification System," European

Automobile Manufacturers Association (ACEA), "European Oil Sequences," or other "Vehicle or Engine Manufacturer Standards" as provided in Section 3.13.1.3.1.

(Amended 2012 and 2014)

3.13.1.3.1. Vehicle or Engine Manufacturer Standard. –The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall identify the specific vehicle or engine manufacturer standard, or standards, met in letters not less than 3.18 mm (1/8 in) in height. If the vehicle (motor) oil only meets a vehicle or engine manufacturer standard, the label must clearly identify that the oil is only intended for use where specifically recommended by the vehicle or engine manufacturer.

(Added 2014)

3.13.1.3.2. Inactive or Obsolete Service Categories. ~~**The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")" Appendix A, whenever the vehicle engine (motor) oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")." If a vehicle engine (motor) oil is identified as only meeting a vehicle or engine manufacturer standard, the labeling requirements in Section 3.13.1.3.1. Vehicle or Engine Manufacturer Standard applies.**~~ **Whenever any vehicle engine (motor) oil in a container, receptacle, dispenser, storage tank or in bulk does not meet an active API service category as listed in the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")," the rear or rear-facing label of such vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of bulk vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall bear the plainly-visible, cautionary statement set forth in Appendix A of the latest version of SAE J183, and its front or forward-facing label and the invoice or receipt shall bear a plainly-visible, cautionary statement depicted in one of the applicable following three categories:**

(a) Labeling of obsolete oils for diesel-fueled engines:

Caution: The Society of Automotive Engineers believes that this product does not meet the lubrication requirements of modern diesel engines. Significant harm to the engine and/or emission control systems is possible when using this product.

(b) Labeling of obsolete oils for gasoline-fueled engines:

Caution: The Society of Automotive Engineers believes that this product does not meet the lubrication requirements of modern gasoline-fueled engines. Significant harm to the engine and/or emission control systems is possible when using this product.

(c) Labeling of obsolete oils defined by a vehicle or engine manufacturer standard.

If a vehicle engine (motor) oil is identified as only meeting an obsolete vehicle or engine manufacturer standard, the following statement shall appear on any label and/or container used to sell or dispense the product:

Caution: The vehicle or engine manufacturer specifying the lubrication requirements of this engine considers this product obsolete. Significant harm to the engine and/or emission control systems is possible when using this product.

(Added 2012) (Amended 2014 **and 20XX**)

3.13.1.4. Tank Trucks or Rail Cars. - Tank trucks, rail cars, and types of delivery trucks that are used to deliver bulk vehicle engine (motor) oil are not required to display the SAE viscosity grade and service category or categories on such tank trucks, rail cars, and other types of delivery trucks. **In lieu of such display requirements, the documentation defined in Section 3.13.1.5. Documentation shall be readily available for inspection.**

(Added 2012) (Amend 2013~~, and~~ 2014 **and 20XX**)

3.13.1.5. Documentation. – When the engine (motor) oil is sold in bulk, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery. This document must identify the quantity of bulk engine (motor) oil delivered as defined in Sections 3.13.1.1. Viscosity **grade as defined by standard SAE J300 "Engine Oil Viscosity Classification"**; 3.13.1.2. Brand; 3.13.1.3. Engine Service Category; the name and address of the seller and buyer; and the date and time of the sale. For inactive or obsolete service categories, the documentation shall also bear a plainly visible cautionary statement as required in Section 3.13.1.3.2. Inactive or Obsolete Service Categories. Documentation must be retained at the retail establishment for a period of not less than one year.

(Added 2013) (Amended 2014)

(Amended 2012, 2013, 2014 **and 20XX**)

3.13.2. Labeling of Recreational Motor Oil.

3.13.2.1. Viscosity. –The label on each container of recreational motor oil shall contain the viscosity grade classification preceded by the letters "SAE" in accordance with the SAE International's latest version of SAE J300, "Engine Oil Viscosity Classification."

3.13.2.2. Intended Use. –The label on each container of recreational motor oil shall contain a statement of its intended use in accordance with the latest version of SAE J300, "Engine Oil Viscosity Classification."

Section 7. Test Methods and Reproducibility Limits

7.2.3. SAE Viscosity Grades for Engine Oils. – ~~**All values are critical specifications as defined in the latest version of ASTM D3244, "Standard Practice for Utilization of Test Data to Determine Conformance with Specifications." The product shall be considered to be in conformance if the Assigned Test Value (ATV) is within the specification.**~~ **With the exception of the low-temperature cranking viscosity, all values required to define SAE Viscosity Grades, as defined in standard SAE J300, "Engine Oil Viscosity Classification", are critical specifications as defined by ASTM D3244.**

(Added 2008)**(Amended 20XX)**

Background/Discussion: See Appendix A, Page L&R-A180.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

BLOCK 4 ITEMS (B4) TRACTOR HYDRAULIC FLUID

Source:
The Lubrizol Corporation (2019)

Purpose:
Prevent product misrepresentation and equipment failure.

B4: MOS-6 Regulation for the Uniform Method of Sale of Commodities Regulation: Section 2.XX Tractor Hydraulic Fluid

Item under Consideration:
Amend NIST Handbook 130, Uniform Regulation for the Method of Sale of Commodities as follows:

2.XX. Tractor Hydraulic Fluid.

2.XX.1. Products for Use in Lubricating Tractors. – Tractor hydraulic fluids shall meet at least one current original equipment manufacturer's requirements for those tractors or have demonstrated performance claims to be suitable for use in those tractors. Where a fluid can be licensed against an original equipment manufacturer's specification, evidence of current licensing by the marketer is acceptable documentation of performance against the specification. In the absence of a license from the original equipment manufacturer, adherence to the original equipment manufacturer's recommended requirements shall be assessed after testing per relevant methods available to the lubricants industry and the state regulatory agency. Suitability for use claims shall be based upon appropriate field, bench, and/or rig testing. Any manufacturer of a tractor hydraulic fluid making suitable-for-use claims shall provide, upon request by a duly authorized representative of the Director, credible documentation of such claims. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims may be requested in confidence by a duly authorized representative of the Director. Supporting data may be supplied directly to the Director's office by the additive supplier(s).

2.XX.1.1. Conformance. – Conformance of a fluid per Section 2.XX.1. Products for Use in Lubricating Tractors does not absolve the obligations of a fluid licensee with respect to the licensing original equipment manufacturer or the original equipment manufacturer's licensing agent(s), where relevant.

2.XX.1.2. Tractor Hydraulic Fluid Additives. –Any material offered for sale or sold as an additive to tractor hydraulic fluids shall be compatible with the tractor hydraulic fluid to which it is added, and shall meet all performance claims as stated on the label or published on any website referenced by the label. Any manufacturer of any such product sold in this state shall provide, upon request by a duly authorized representative of the Director, documentation of any claims made on their product label or published on any website referenced by the label.

2.XX.2. Labeling and Identification of Tractor Hydraulic Fluid. – Tractor hydraulic fluids shall be labeled or identified as described below.

2.XX.2.1. Container Labeling. – The label on a container of tractor hydraulic fluid shall not contain any information that is false or misleading. Containers include bottles, cans, multi-quart or liter containers, pails, kegs, drums, and intermediate bulk containers (IBCs). In addition, each container of tractor hydraulic fluid shall be labeled with the following:

(a) the brand name;

(b) the name and place of business of the manufacturer, packer, seller, or distributor;

(c) the words Tractor Hydraulic Fluid," which may include words such as "Hydraulic Fluid for Agricultural Applications" or "Universal Tractor Transmission Oil";

(d) the primary 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;

(e) any obsolete equipment manufacturer specifications should be clearly identified as "obsolete" and accompanied by the following warning:

Caution: This specification is no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using this product.

(f) an accurate statement of the quantity of the contents in terms of liquid measure.

2.XX.2.2. Identification on Documentation. – Tractor hydraulic fluid sold in bulk shall be identified on the manufacturer, packer, seller, or distributor invoice, bill of lading, shipping paper, or other documentation with the information listed below:

(a) the brand name;

(b) the name and place of business of the manufacturer, packer, seller, or distributor;

(c) the words Tractor Hydraulic Fluid," which may include words such as "Hydraulic Fluid for Agricultural Applications" or "Universal Tractor Transmission Oil";

(d) the primary 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;

(e) any obsolete equipment manufacturer specifications should be clearly identified as "obsolete" and accompanied by the following warning:

Caution: This specification is no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using this product.

(f) an accurate statement of the quantity of the contents in terms of liquid measure.

2.XX.2.3. Identification on Service Provider Documentation. – Tractor hydraulic fluid installed from a bulk tank at time of service shall be identified on the customer invoice with the information listed below:

(a) the brand name;

(b) the name and place of business of the service provider;

(c) the words Tractor Hydraulic Fluid," which may include words such as "Hydraulic Fluid for Agricultural Applications" or "Universal Tractor Transmission Oil";

(d) the primary 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;

(e) any obsolete equipment manufacturer specifications should be clearly identified as "obsolete" and accompanied by the following warning:

Caution: This specification is no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using this product.

(f) an accurate statement of the quantity of the contents in terms of liquid measure.

2.XX.3. Documentation of Claims Made Upon Product Label. –Any manufacturer, packer, or distributor of any product subject to this article and sold in this state shall provide, upon request of duly authorized representatives of the Director, credible documentation of any claim made upon their product label, including claims made on any website referenced by said label. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims may be requested in confidence by a duly authorized representative of the Director. Supporting data may be supplied directly to the Director's office by the additive supplier(s).

B4: FLR-6 Uniform Fuels and Automotive Lubricants Regulation, Sections 1.XX. Tractor Hydraulic Fluid, 1.XX. Hydraulic Fluid, 2.XX. Products for Use in Lubricating Tractors and 3.XX. Tractor Hydraulic Fluid

Item Under Consideration:
Amend NIST Handbook 130, Uniform Fuels and Automotive Lubricants Regulation as follows:

1.XX. Tractor Hydraulic Fluid. - A product intended for use in tractors with a common sump for the transmission, final drives, wet brakes, axles and hydraulic system.

1.XX. Hydraulic Fluid. – A product intended for use in multiple applications with a dedicated hydraulic system and sump. Such fluids cannot be used in tractors. See Tractor Hydraulic Fluid for reference.

2.XX. Products for Use in Lubricating Tractors. – Tractor hydraulic fluids shall meet at least one current original equipment manufacturer's requirements for those tractors or have demonstrated performance claims to be suitable for use in those tractors. Where a fluid can be licensed against an original equipment manufacturer's specification, evidence of current licensing by the marketer is acceptable documentation of performance against the specification. In the absence of a license from the original equipment manufacturer, adherence to the original equipment manufacturer's recommended requirements shall be assessed after testing per relevant methods available to the lubricants industry and the state regulatory agency. Suitability for use claims shall be based upon appropriate field, bench, and/or rig testing. Any manufacturer of a tractor hydraulic fluid making suitable-for-use claims shall provide, upon request by a duly authorized representative of the Director, credible documentation of such claims. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims may be requested in confidence by a duly authorized representative of the Director. Supporting data may be supplied directly to the Director's office by the additive supplier(s).

2.XX.1. Conformance. – Conformance of a fluid per Section 2.XX. Products for Use in Lubricating Tractors does not absolve the obligations of a fluid licensee with respect to the licensing original equipment manufacturer or the original equipment manufacturer's licensing agent(s), where relevant.

2.XX.2. Tractor Hydraulic Fluid Additives. – Any material offered for sale or sold as an additive to tractor hydraulic fluids shall be compatible with the tractor hydraulic fluid to which it is added and shall meet all performance claims as stated on the label or published on any website referenced by the label. Any manufacturer of any such product sold in this state shall provide, upon request by a duly authorized representative of the Director, documentation of any claims made on their product label or published on any website referenced by the label.

3.XX. Tractor Hydraulic Fluid

3.XX.1. Labeling and Identification of Tractor Hydraulic Fluid. – Tractor hydraulic fluid shall be labeled or identified as described below.

3.XX.1.1. Container Labeling. – The label on a container of tractor hydraulic fluid shall not contain any information that is false or misleading. Containers include bottles, cans, multi-quart or liter

containers, pails, kegs, drums, and intermediate bulk containers (IBCs). In addition, each container of tractor hydraulic fluid shall be labeled with the following:

(a) the brand name;

(b) the name and place of business of the manufacturer, packer, seller, or distributor;

(c) the words "Tractor Hydraulic Fluid," which may include words such as "Hydraulic Fluid for Agricultural Applications" or "Universal Tractor Transmission Oil";

(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;

(e) any obsolete equipment manufacturer specifications should be clearly identified as "obsolete" and accompanied by the following warning:

Caution: This specification is no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using this product.

(e) an accurate statement of the quantity of the contents in terms of liquid measure.

3.XX.1.2. Identification on Documentation. – Tractor hydraulic fluid sold in bulk shall be identified on the manufacturer, packer, seller or distributor invoice, bill of lading, shipping paper, or other documentation with the information listed below:

(a) the brand name;

(b) the name and place of business of the manufacturer, packer, seller, or distributor;

(c) the words "Tractor Hydraulic Fluid," which may include words such as "Hydraulic Fluid for Agricultural Applications" or "Universal Tractor Transmission Oil";

(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;

(e) if a tractor hydraulic is identified as meeting an obsolete equipment manufacturer standard, the following statement shall appear on any label and/or container used to sell or dispense the product:

Caution: The equipment manufacturer specifying the lubrication requirements of this tractor hydraulic fluid considers this product obsolete. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using this product.

(f) an accurate statement of the quantity of the contents in terms of liquid measure.

3.XX.1.3. Bulk Delivery. – When the tractor hydraulic fluid is sold in bulk, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery. This document must identify the fluid as defined in Section 3.XX.1. Container Labeling.

3.XX.1.4. Storage Tank Labeling. – Each storage tank of tractor hydraulic fluid shall be labeled with the following:

(a) the brand name;

(b) the primary performance claim or 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;

3.XX.1.5. Documentation of Claims Made Upon Product Label. –Any manufacturer, packer, or distributor of any product subject to this article and sold in this state shall provide, upon request of duly authorized representatives of the Director, credible documentation of any claim made upon their product label, including claims made on any website referenced by said label. If the product performance claims published by blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims may be requested in confidence by a duly authorized representative of the Director. Supporting data may be supplied directly to the Director's office by the additive supplier(s).

Background/Discussion: See Appendix A, Page L&R-A183.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

FLR – UNIFORM FUELS AND AUTOMOTIVE LUBRICANTS REGULATION

FLR-7 Section 2.2. Diesel Fuel

Source:
NCWM Fuels and Lubricants Subcommittee (2019)

Purpose:
Update the requirements to better meet the needs of modern diesel engines when a fuel that has functional benefits beyond ASTM Standard Specification D975 is desired by the diesel equipment users.

Item Under Consideration:
Amend NIST Handbook 130 Uniform Fuels and Automotive Lubricants Regulation as follows:

2.2. **Diesel Fuel**. **-** Shall meet the latest version of ASTM D975, "Standard Specification for Diesel Fuels Oils."

2.2.1. Premium Diesel Fuel. -- All diesel fuels identified on retail dispensers~~**, bills of lading, invoices, shipping papers, or other documentation**~~ with ~~**terms such as premium, super, supreme, plus, or premier**~~ **an additional term incorporated directly in the product or grade name that differentiates the fuel and implies the fuel provides properties that exceed minimum specification limits or performance properties** must conform to the following **minimum** requirements.

EXCEPTION NOTE: It is permissible to include a clearly-defined fuel property that has a functional benefit, established test method, and a level, if stated as such. Example is winterized diesel which provides an operability benefit and is discussed in detail in ASTM D975 as a recommended guideline.
(Added 20XX)

(a) **Cetane Number.** - A minimum cetane number of 47.0 as determined by the latest version of ASTM D613, "Standard Test Method for Cetane Number of Diesel Fuel Oil."

NOTE: ASTM D613 is the referee method; however, the following methods can be used to determine cetane number: the latest versions of ASTM D6890, "Standard Test Method for Determination of Ignition Delay and Derived Cetane Number" (DCN) of Diesel Fuel Oils by Combustion in a Constant Volume Chamber"; ASTMD7170, "Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils—Fixed Range Injection Period, Constant Volume Combustion Chamber Method"; and ASTM D7668, "Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils—Ignition Delay and Combustion Delay Using a Constant Volume Combustion Chamber Method."

(b) **Low Temperature Operability.** – A cold flow performance measurement which meets the latest version of ASTM D975, "Standard Specification for Diesel Fuel Oils," tenth percentile minimum ambient air temperature charts and maps by the latest versions of either ASTM D2500, "Standard Test Method for Cloud Point of Petroleum Products and Liquid Fuels" or ASTM Standard D4539, "Standard Test Method for Filterability of Diesel Fuels by Low-Temperature Flow Test (LTFT)." **The latest version of ASTM Standard Test Method D6371, "Standard Test Method for Cold Filter Plugging Point of Diesel and Heating Fuels" may be used when the test results are a maximum of 6 ºC below the Cloud Point.** Low temperature operability is only applicable October 1 to March 31 of each year.

~~**(c) Thermal Stability. – A minimum reflectance measurement of 80 % as determined by the latest version of ASTM Standard Test Method D6468 (180 min, 150 °C).**~~

(c) **Lubricity.** – A maximum wear scar diameter of ~~520~~ **460** micrometers as determined by the latest version ASTM D6079, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR)." ~~**If an enforcement jurisdiction's single test of more than 560 micrometers is determined, a second test shall be conducted. If the average of the two tests is more than 560 micrometers, the sample does not conform to the requirements of this part.**~~

NOTE: The latest version of ASTM D6079, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR)" is the referee method; however, the latest version of ASTM D7688, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR) by Visual Observation" can be used.

(d) Corrosion. – A minimum rating of B+ as determined by the most recent version of NACE TM0172, "Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines."

NOTE: The most recent version of NACE TM0172 "Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines" is the referee method. The most recent version of ASTM D7548 "Standard Test Method for Determination of Accelerated Iron Corrosion in Petroleum Products" can be used.

(e) Filter Blocking Tendency (FBT) – A maximum of 2.2 by ASTM D2068, "Standard Test Method for Determining Filter Blocking Tendency", following procedure B.

(f) Injector Deposit Control. – Maximum power loss in keep-clean mode of 2 % by the latest version of Coordinating European Council, CEC F-98-08, "Direct Injection, Common Rail Diesel Engine Nozzle Coking Test."

(Amended 2003 and **20XX**)

Background/Discussion: See Appendix A, Page L&R-A190.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

FLR-8 Section 3.2.5. Prohibition of Terms

Source:
Petroleum Marketers Association of America (PMAA) (2019)

Purpose:
Provide consistency among motor fuel dispensing facilities on the terms used for branding and advertising of ethanol blends greater than 10% so consumers can make informed decisions regardless of the fuel supplier.

Item Under Consideration:
Amend NIST Handbook 133 Uniform Fuels and Automotive Lubricants Regulation as follows:

3.2.3. Prohibition of Terms. – It is prohibited to use specific terms to describe a grade of gasoline or gasoline-oxygenate blend unless it meets the minimum antiknock index requirement shown in Table 1. Minimum Antiknock Index Requirements.

Table 1.
Minimum Antiknock Index Requirements

Term	Minimum Antiknock Index	
	ASTM D4814 Altitude Reduction Areas IV and V	All Other ASTM D4814 Areas
Premium, Super, Supreme, High Test**, Premier, Ultra, Ultimate**	90	91
Midgrade, Plus	87	89
Regular, Unleaded (alone)	85	87
Economy	--	86

(Tale 1. Amended 1997, 2018, and 20XX)

3.2.3.1. Gasoline-Ethanol Blends. - When fuels containing greater than 10 % by volume ethanol are offered for sale, the use of specific grade terms are prohibited unless the fuel meets the minimum antiknock index requirement shown in Table 1 and the grade term is followed by the term "EXX". For example, "Unleaded E15"; "Regular E15"; "Plus E15"; "Premium E15". The grade term including the grade extension of EXX must be posted accurately on both the fuel dispenser and street pricing signs and any other form of signage or advertisement where specific grade terms are posted.

(Added 20XX)

Background/Discussion: See Appendix A, Page L&R-A190.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

POL – NCWM POLICY, INTERPRETATIONS AND GUIDELINES

POL-1 2.3.2. Fresh Fruits and Vegetables

Source:
Nash Finch Produce (2019)

Purpose:
Allow the sale of sweet potatoes and yams by count.

Item Under Consideration:
Amend NIST Handbook 130 NCWM Policy, Interpretations and Guidelines as follows:

2.3.2. Fresh Fruits and Vegetables.
(L&R, 1979, p. 176; 1980; 1982, p. 152; 2008)

Guideline

Recognizing the difficulty faced by consumers when more than one method of sale is employed in the same outlet for the same product, non-comparable methods of sale (e.g., weight and measure) for the same produce item in the same outlet should be minimized.

This guideline applies to all sales of fruits and vegetables. There are two tables, one for specific commodities and one for general commodity groups. Search the specific list first to find those commodities that either do not fit into any of the general groups or have unique methods of sale. If the item is not listed, find the general group in the second table. The item may be sold by any method of sale marked with an X.
(Amended 2008)

Method of Retail Sale for Fresh Fruits and Vegetables Specific Commodity					
Commodity	**Weight**	**Count**	**Head or Bunch**	**Dry Measure (any size)**	**Dry Measure (1 dry qt or larger)**
Artichokes	X	X			
Asparagus	X		X		
Avocados		X			
Bananas	X	X			
Beans (green, yellow, etc.)	X				X
Brussels Sprouts (loose)	X				
Brussels Sprouts (on stalk)			X		
Cherries	X			X	X
Coconuts	X	X			
Corn on the Cob		X			X
Dates	X				
Eggplant	X	X			
Figs	X				
Grapes	X				

Method of Retail Sale for Fresh Fruits and Vegetables Specific Commodity					
Commodity	**Weight**	**Count**	**Head or Bunch**	**Dry Measure (any size)**	**Dry Measure (1 dry qt or larger)**
Melons (cut in pieces)	X				
Mushrooms (small)	X			X	X
Mushrooms (portobello, large)	X	X			
Okra	X				
Peas	X				X
Peppers (bell and other varieties)	X	X			X
Pineapples	X	X			
Rhubarb	X		X		
Sweet Potatoes/Yams	**X**	**X**			**X**
Tomatoes (except cherry/grape)	X	X			X
Berries and Cherry/Grape Tomatoes	X			X	
Citrus Fruits (oranges, grapefruits, lemons, etc.)	X	X			X
Edible Bulbs (onions [spring or green], garlic, leeks, etc.	X	X	X		X
Edible Tubers (Irish potatoes, ~~**sweet potatoes,**~~ ginger, horseradish, etc.)	X				X
Flower Vegetables (broccoli, cauliflower, Brussel sprouts, etc.)	X		X		
Gourd Vegetables (cucumbers, squash, melons, etc.)	X	X			X
Leaf Vegetables (lettuce, cabbage, celery, etc.)	X		X		
Leaf Vegetables (parsley, herbs, loose greens)	X		X	X	
Pitted Fruits (peaches, plums, prunes, etc.)	X	X			X
Pome Fruits (apples, pears, mangoes, etc.)	X	X			X
Root Vegetables (turnips, carrots, radishes, etc.)	X		X		

Background/Discussion: See Appendix A, Page L&R-A192.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

POL-2 D 2.6.XX. Methods of Sale for Packages of Consumer Commodities – Federal Trade Commission (FTC) and Acceptable Common or Usual Declarations for Packages of Food – Food and Drug Administration (FDA).

Source:
NIST OWM (2018)

Purpose:
Provide NIST HB130 users with easy access to tables to identify the method of sales prescribed by the Federal Trade Commission (FTC) for products subject to that agency's regulation and the acceptable common or usual declarations permitted to appear on packages of food by the Food and Drug Administration.

Item Under Consideration:
Amend NIST Handbook 130, NCWM Policy, Interpretations and Guidelines as follows:

NOTE: NIST/OWM is also requesting editorial privileges to add items as they receive confirmation from FDA as to what the acceptable common or usual declaration for a product is. NIST/OWM will then automatically update the handbook (chart) and list all changes to the Amendment chart located in the front HB130.

2.6.XX. Methods of Sale for Packages of Consumer Commodities – Federal Trade Commission (FTC) and Acceptable Common or Usual Declarations for Packages of Food – Food and Drug Administration (FDA).

The purpose of a method of sale requirement is to provide a uniform measurement unit for the sale of a commodity or product so that consumers can compare quantities and prices so that they can make informed purchasing decisions and value comparisons. Traditional methods of sale are established based on long-term usage of certain measurement units that are prevalent among an industry or trade group which have gained widespread acceptance and use by both sellers and consumers. The decision to adopt a traditional method of sale is based on the unit of measurement being traceable to national standards.

The following table is based in part on the 1978 Guide 7699.2 in the Food and Drug Administrations (FDA) "Fair Packaging and Labeling Manual" and other publications and guidance received from FDA in response to inquiries. The information the table is based on FDA's interpretation of Section 101.7 "Declaration of Net Quantity of Contents" in 21 CFR 101 – Food Labeling, Subpart A:

21 CFR 101.7 Declaration of net quantity of contents.

> **(a) The principal display panel of a food in package form shall bear a declaration of the net quantity of contents. This shall be expressed in the terms of weight, measure, numerical count, or a combination of numerical count and weight or measure.**
>
> **The statement shall be in terms of fluid measure if the food is liquid, or**
>
> **in terms of weight if the food is solid, semisolid, or viscous, (See *Note 1)* or a mixture of solid and liquid;**
>
> **Except that such statement may be in terms of dry measure if the food is a fresh fruit, fresh vegetable, or other dry commodity that is customarily sold by dry measure.**
>
> **If there is a firmly established general consumer usage and trade custom of declaring the contents of a liquid by weight, or a solid, semisolid, or viscous product by fluid measure, it may be used.**
>
> **Whenever the Commissioner determines that an existing practice of declaring net quantity of contents by weight, measure, numerical count, or a combination in the case of a specific packaged food does not facilitate value comparisons by consumers and offers opportunity for consumer confusion, he will by regulation designate the appropriate term or terms to be used for such commodity.**
>
> **…**

(c) When the declaration of quantity of contents by numerical count does not give adequate information as to the quantity of food in the package, it shall be combined with such statement of weight, measure, or size of the individual units of the foods as will provide such information.

Note 1. **FDA has not defined a "viscous" liquid but a general definition is that it is typically a liquid that has a thick (for example, some syrups have between 66 % to 74 % solids) or sticky consistency and which flows slowly when poured. Another identifying characteristic is that significant variations between two or more density measurements are frequently, but not always found in tests of viscous liquids.**

A product that is "concentrated or "semi-concentrated" (for example, "concentrated soup" typically has a high solids content and the instructions indicate that it is to be mixed with water or milk to "reconstitute" it) is typically treated as a "semi-solid" food.

Note 2. **When a note refers to "MOS" it means the Uniform Method of Sale of Commodities Regulation in Section IV of this handbook.**

Note 3. **When a note refers to "CPG" it means a FDA Compliance Policy Guideline at www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/default.htm**

Note 4. **When a note refers to "I &G" it means Section VI. NCWM Policy, Interpretations and Guidelines of this handbook.**

Note 5. **When a note refers to NBS HB 108 it means NBS Handbook 108 "Weights and Measures Labeling Handbook" (1971). This handbook was developed following the adoption of the Federal Fair Packaging and Labeling Act (FPLA) as an aid to facilitating agreement and uniformity between federal and state labeling regulations. Some of the information in handbook is obsolete because it was based on the original FPLA which was adopted in 1966. It has not been revised to reflect the 1992 amendments to FPLA is out-of-print. However, it but contains useful labeling information and many early precedent setting interpretations from both the Food and Drug Administration and the Federal Trade Commission. A PDF copy is available from the Office of Weights and Measures.**

Note 6. **The United States Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS) has primary jurisdictional authority over meat and poultry labeling but some food products containing certain percentages of meat and poultry fall under FDA jurisdiction. For example, spaghetti sauces with less than 2 percent cooked meat, pork and beans, bagel dogs and gravy mixes are exempt from FSIS regulations but are under FDA jurisdiction (this is called an "amenability" determination). See USDA publication "A Guide to Federal Food Labeling Requirements for Meat, Poultry and Egg Products 2007 at**

www.fsis.usda.gov/wps/wcm/connect/f4af7c74-2b9f-4484-bb16-fd8f9820012d/Labeling_Requirements_Guide.pdf?MOD=AJPERES

Table A. Acceptable Common or Usual Net Quantity of Contents Declarations on Packages of Food

Product	Acceptable Common or Usual Declaration	Notes
Abalone, Canned in Brine	Net Weight	§101.7 (a) a mixture of solid food and liquid must be sold by weight. See also Footnote 2. This food sold by net weight, because the brine was edible per FDA 7622 (Page I-52) in NBS HB 108.
Apples, Fresh	Dry Measure or Net Weight In addition, may also show min. size, range in size, and/or count	§101.7 (a) a solid food must be sold by weight or by dry measure per

		trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."
Anchovies (in salt)	**Weight of Fish**	**§101.7 (a) a solid food must be sold by weight.**
Apricots, canned	**Net Weight**	**§101.7 (a) a mixture of solid food and liquid must be sold by weight.**
Artichokes, canned	**Drained Weight**	**Must be sold by drained weight per FDA 7563 (Page I-20) in NBS Handbook 108. See also Footnotes 2 and 3.**
Asparagus, fresh	**Net Weight**	**§101.7 (a) a mixture of solid food and liquid must be sold by weight.**
Beans, fresh	**Dry Measure or Net Weight**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G, Section 2.3.2 "Fresh Fruits and Vegetables."**
Berries, small open containers	**No marking, Dry Measure on cellophane covered**	**See MOS §1.1.2. Methods of Sale where sales by net weight are also permitted. See also Footnote 1 and I & G, Section 2.3.2 "Fresh Fruits and Vegetables."**
Biscuits	**Net Weight and Count**	**§101.7 (a) a solid food must be sold by weight.**
Bloaters, smoked **(a Bloater is a whole, ungutted, cold-smoked herring.)**	**Net Weight of Fish**	**§101.7(a) a solid food must be sold by weight.**
Bread	**Net Weight**	**See also MOS, Section 1.2. Methods of Sale where sale by net weight is required.**
Broth, Beef and Chicken	**Net Weight**	**Beef and chicken broth labeling is regulated by the USDA and these products are included here for information. See Footnote 4 for method of sale information which is based on trade custom.**
Cabbage, fresh	**Dry Measure or Net Weight**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
~~**Cake (decorations)**~~	~~**No markings**~~	
Cantaloupes, fresh	**Count**	**§101.7 (a) a solid food must be sold by weight, count or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**

Catsup (ketchup or catchup)	**Net Weight**	**§101.7(a) a viscous liquid must be sold by weight.**
Celery, fresh	**Count**	**§101.7 (a) a solid food must be sold by weight, count or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Cereals	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Cheese (general)	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Cheese (limburger)	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Cherries, canned	**Net Weight**	**§101.7 (a) a mixture of solid food and liquid must be sold by weight.**
Cherries, maraschino	**Net Weight or Dry Measure, No. of rows and minimum size**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Chicken, canned	**Net Weight**	**Most chicken is regulated by the USDA and this product is included in this list for information only. See 9 CFR 381.121(c)(5) which requires solid foods or mixtures of solids and liquids to be sold by net weight.**
Citrus fruit (fresh)	**Dry Measure**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Chow-Chow **This is relish (typically made from chopped and chunks of green tomatoes (and sometimes red tomatoes), cabbage, mustard seed or powder, onions, hot peppers, sweet peppers, and vinegar.)**	**Net Weight**	**§101.7 (a) a mixture of solid food and liquid must be sold by weight.**
Citrus juices	**Fluid Measure**	**§101.7 (a) if a food is liquid it must be sold by fluid measure.**
Clams, canned	**Drained Weight**	**Sale by drained weight, required because liquid is typically discarded, per FDA 7563 and 7622 (Pages I-20 & I-52) in NBS Handbook 108. See also Footnotes 2 and 3.**

Cookies (cakes)	**Net Weight and Count**	**§101.7 (a) a solid food may be sold by weight or count and, because cookies vary in size and weight, count alone is not sufficient.**
Corn on Cob (canned)	**Count**	**See CPG Sec. 585.325 Corn on the Cob, Canned - Quantity of Contents Declaration. To satisfy the requirement of 21 CFR 101.105(a), the quantity of contents declaration on canned corn on the cob should be in terms of count (number of ears). FDA permits a declaration in terms of net weight to appear, but it is not required.**
Cottonseed meal	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Crabmeat, canned (dry)	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Crabmeat in brine	**Drained Weight**	**See Footnote 2.**
Crackers	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Cranberries	**Dry Measure (e.g., cranberry barrel) also Net Weight**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Dates	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Doughnuts (Donuts)	**Net Weight and Count**	**§101.7 (a) a solid food may be sold by weight or count and, because doughnuts vary in size and weight, count alone is not sufficient per FDA 7605 (Page I-42) in NBS HB 108.**
Fish, canned	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Fish, fresh	**No marking, Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Fish, frozen	**Net Weight, No marking**	**§101.7 (a) a solid food must be sold by weight.**
Fish, salted or smoked	**Net Weight and Count**	**§101.7 (a) a solid food must be sold by weight.**
Fruits, canned	**Net Weight**	**§101.7 (a) a mixture of solid food and liquid must be sold by weight.**
Fruits, fresh	**Dry Measure or Net Weight, also min size and/or count**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**

Fruit juices	**Fluid Volume**	**§ 101.7 (a) a liquid food must be sold by fluid measure.**
Grains, sacked	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Grapefruit, fresh	**Dry Measure, Size & Count, also Net Weight**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Grapes, fresh	**Net Weight & Dry Measure**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Greens, fresh	**Dry Measure & Net Weight, also No marking**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Gum	**Number of Sticks**	**Selling gum by number of sticks is a traditional method of declaring quantity per FDA 7613 (Page I-45) in NBS HB 108.**
Herring Roe	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Herring, spiced	**Drained Weight Herring, Total Weight Contents**	**See Footnotes 2 and 3.**
Honey, comb	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Honey, strained	**Net Weight**	**§101.7 (a) a viscous liquid must be sold by weight.**
Jelly	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Lemons, fresh	**Count & Average Diameter, also Dry Measure**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Lettuce	**Dozen Count & Dry Measure**	**See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Lobster, canned (dry)	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Lobster meat in brine (cooked)	**Drained Weight**	**Sales by drained weight, required because brine was discarded, per FDA 7563 and 7622 (Pages I-20 & I-52) in NBS Handbook 108. See also Footnotes 2 and 3.**
Margarine	**Net Weight**	**§101.7 (a) a solid food must be sold by weight. See also 21 U.S.C. Food, Drug and Cosmetic Act, §347**

		Intrastate Sales of Colored Oleomargarine.
Mayonnaise	**Fluid Volume**	**See 21 CFR 169.140 Mayonnaise - defined is a semisolid food which must be sold by weight but, it is trade custom to sell this food by fluid volume.**
Meats	**Net Weight**	**Most meat is regulated by USDA and is provided here for information. See 9 CFR 317.2 (h) which requires solid foods to be sold by net weight.**
Microgreens	**Net Weight**	**FDA Response Received: November 4, 2014 - FDA confirmed that a solid food product should be sold by weight. This was in response to an OWM inquiry via email.**
Milk, sweetened, condensed	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Milk, evaporated	**Fluid Volume (Net Weight, may be declared on side panel (s))**	**§101.7 (a) a liquid must be sold by fluid volume.**
Molasses	**Net Weight and/or Fluid Volume**	**§101.7 (a) a viscous liquid must be sold by weight, but it is trade custom to sell molasses by fluid volume.**
Mushrooms, fresh	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Mushrooms, canned	**Drained Weight**	**See 21 CFR 155.201, Subpart B Canned Mushrooms. See Footnotes 2 & 3.**
Mussels (canned)	**Drained Weight**	**See also MOS Section 1.5.2.5. Canned (heat processed) Mussels, Clams, Oysters, or Other Mollusks which requires these products be sold by weight.**
Mustard, Prepared	**Net Weight**	**§101.7 (a) a viscous liquid must be sold by weight.**
Oil, salad, olive	**Fluid Volume**	**§101.7 (a) a liquid must be sold by fluid volume.**
Olives, green (in brine)	**Drained Weight**	**See Footnotes 2 and 3.**
Olives, ripe	**Drained Weight**	**See Footnotes 2 and 3.**
Oranges	**Dry Measure & Count, also Net Weight & Size**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom.**
Oysters, fresh	**Fluid Volume**	**See also MOS Section 1.5.2.3. Canned (heat processed) Mussels, Clams, Oysters, or Other Mollusks which allows these products to be**

		sold by weight, drained weight or fluid volume.
Oysters, canned	**~~Drained Weight~~ Net Weight**	**See also MOS Section 1.5.2.5. Canned (heat processed) Mussels, Clams, Oysters, or Other Mollusks which requires these products be sold by weight and includes a limit on free liquid.**
Peaches, canned	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Peaches, fresh	**Dry Measure, Min. Diameter, also Net Weight & Count**	**§101.7 (a) a solid food must be sold by weight or by dry measure per custom.**
Peanut, butter	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Pears, canned	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Peas, canned	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Pickles	**Fluid Volume, (see 21 CFR 101.7 (r) which permits sales of one or two whole pickles in clear plastic bags by count.)**	**See also MOS Section 1.8. Pickles which permits sales of one or two whole pickles in clear plastic bags by count.**
Pineapple, fresh	**Count**	**§101.7 (a) a solid food may be sold by count. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Plums, prunes, fresh	**Net Weight or Dry Measure, Count & Size denoted by rows in top layer**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Potatoes, fresh	**Net Weight or Dry Measure**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom. See also I & G Section 2.3.2 "Fresh Fruits and Vegetables."**
Rabbits, dressed	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Rolls and Buns	**Net Weight and Count**	**§101.7 (a) a solid food may be sold by weight or count but, because rolls and buns vary in size and weight, count alone is not sufficient per FDA 7605 (Page I-42) in NBS HB 108.**
Relish **(e.g. bell pepper relish, green pepper relish)**	**Net Weight**	**For pickle relish: see 21 CFR 101.7 (r) the declaration of net quantity of contents on pickles and pickle products, including relishes … shall be expressed in terms of the U.S. gallon of 231 cubic inches and quart,**

		pint, and fluid ounce. subdivisions thereof.
Rock Lobster, canned (dry)	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Roe, herring	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Salad dressing	**Fluid Volume**	**See 21 CFR 169.150 Salad Dressing - defined as a semisolid food it is trade custom to sell by fluid volume.**
Salmon, canned	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Sardines, canned	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Sauces	**When the sauce is a free-flowing liquid (e.g., "Hot Sauce or "Worcestershire Sauce") it must be sold by fluid volume.** **When the sauce is a viscous or slow flowing liquid or a mixture of solids and liquids it must be sold by net weight (e.g., "Chili Sauce," "Cocktail Sauce," "Tomato Sauce," "Spaghetti Sauce").**	**§101.7 (a) a liquid must be sold by fluid volume.** **§101.7 (a) a viscous liquid or mixture of solids and liquid must be sold by weight.**
Sauerkraut, (unprocessed in glass)	**Fluid Volume**	**§101.7 a mixture of solids and liquid it is trade custom to sell this food by fluid volume.**
Shrimp, canned (wet)	**Drained Weight**	**Sales by drained weight per FDA 7563 (Page I-20) in NBS Handbook 108. See also Footnotes 2 and 3.**
Shrimp, canned (dry)	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Syrup	**Fluid Volume or Net Weight**	**§101.7 (a) a viscous liquid must be sold by weight.**
Soups, canned (liquid single strength)	**Fluid Volume**	**§101.7 (a) a food that is liquid or a mixture of solids and liquid must be sold by fluid measure.** **NOTE: soups which contain meat and poultry are subject to the regulations of the USDA and packages bear a seal of inspection by that agency. For method of sale labeling See 9 CFR 317.2 for meat products and §381.121 for poultry products**
Soups, canned (condensed & semi-condensed)	**Net Weight**	**§101.7 (a) a semi-solid food must be sold by weight.**

Tea	**Net Weight**	**§101.7 (a) a solid food must be sold by weight.**
Tea bags	**Net Weight & Count**	**§101.7 (a) a solid food must be sold by weight or count but, count alone is not sufficient for this food.**
Toddler Food (e.g., ravioli and vegetables in a single tray.)	**Net Weight**	**FDA Response Received: September 20, 2017 - A food entree for toddlers (comprised of ravioli and peas and carrots) included a drained weight declaration for the vegetables. FDA was contacted by email and responded to OWM that the quantity of the vegetables should be declared by net weight and not drained weight. See Footnote 5.**
Tomatoes, canned	**Net Weight**	**§101.7 a mixture of solids and liquids must be sold by weight.**
Tomatoes, fresh	**Net Weight or Dry Measure, Size denoted by Rows in top layer**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom.**
Tuna fish, canned	**Net Weight or, Drained Weight***	***Several packers have permission to temporarily label by drained weight. See page 35362 Federal Register / Vol. 79, No. 119 / Friday, June 20, 2014 / Notices – "FDA - Canned Tuna Deviating from Identity Standard;"**
Vegetables, canned	**Net Weight**	**§101.7 (a) a mixture of solids and liquids must be sold by weight.**
Vegetables, fresh	**Dry Measure or Net Weight, also Count**	**§101.7 (a) a solid food must be sold by weight or by dry measure per trade custom.**
Water, infused (e.g., with pieces of fruit or vegetables)	**Fluid Volume**	**FDA Response Received: May 24, 2017 - OWM received an inquiry about containers of water sold at retail with pieces of watermelon, asparagus and mint to infuse flavor. FDA was contacted by email and responded that these products should be sold by fluid measure. See Footnote 5.**
Yogurt, drinkable/pourable	**Fluid Volume**	**FDA Response Received: May 24, 2017 - OWM received an inquiry about the appropriate method of sale for containers of pourable yogurt and smoothies. FDA was contacted by email and responded that these products should be sold by fluid measure. See Footnote 5.**

This compilation will be revised from time to time as may be required by changes in consumer understanding, administrative opinion, or court decisions.

1

Footnotes

Footnote 1. See also Subpart G—Exemptions from Food Labeling Requirements –21 CFR 101.100 Food; exemptions from labeling. (c) An open container (a container of rigid or semi-rigid construction, which is not closed by lid, wrapper, or otherwise other than by an uncolored transparent wrapper which does not obscure the contents) of a fresh fruit or fresh vegetable, the quantity of contents of which is not more than 1 dry quart, shall be exempt from the labeling requirements of sections 403(e), (g)(2) (with respect to the name of the food specified in the definition and standard), and (i)(1) of the act; but such exemption shall be on the condition that if two or more such containers are enclosed in a crate or other shipping package, such crate or package shall bear labeling showing the number of such containers enclosed therein and the quantity of the contents of each.

Footnote 2. Drained Weight – When required.

For decades, on a case-by-case basis, under both the Federal Food Drug and Cosmetic Act (FD&C) and the Fair Packaging and Labeling Act (FPLA) FDA has advised firms that the net contents declaration should include the packing medium if it is generally consumed as part of the food. Conversely, where solid foods are packed in a salt brine or other medium that is always, or almost always, discarded before serving, the agency has expected that the label would disclose the drained weight.

Alternative Language from 1997 Proposed Rule on Net Contents

The Food and Drug Administration requires the net quantity of contents to be declared in terms of drained weight when the reference amount in 21 CFR 101.12 is declared in terms of drained solids.

See Footnote 10 in 21 CFR 101.12 "Reference Amounts Customarily Consumed Per Eating Occasion."

> **[10]If packed or canned in liquid, the reference amount is for the drained solids, except for products in which both the solids and liquids are customarily consumed (*e.g.*, canned chopped clam in juice).**

History and Background: FDA's policy on when drained weight labeling is required was described in a proposed rule on page 9833 in the Federal Register / Vol. 62, No. 42 / Tuesday, March 4, 1997. The proposed net content regulation was later withdrawn but the policy on drained weight proposed for §101.200 reflected the agency's official approach in providing the food industry labeling guidance.

4. Mass or Weight of the Packing Medium

"Section 101.105 (now Section 101.7) does not address when net contents declarations that are expressed in terms of mass or weight are to be declared as the mass or weight of the contents without the packing medium, which is commonly referred to as the ''drained mass or weight'' or the ''drained solids.'' The agency tentatively concludes that new § 101.200 should address this matter. For many years, FDA has advised firms that the net contents declaration should include the packing medium if it is generally consumed as part of the food. Conversely, where solid foods are packed in a salt brine or other medium that is always, or almost always, discarded before serving, the agency has expected that the label would disclose the drained weight. For example, FDA's Fair Packaging and Labeling Manual Guide 7699.2 states that the appropriate net contents declarations for canned artichokes, canned clams, canned mushrooms, green olives in brine, and canned wet-pack shrimp are in terms of drained weight. However, the agency's case-by-case approach to determining when a packing medium is always or almost always discarded before serving would be difficult to implement uniformly if many different regulatory agencies are making such assessments. The congressional mandate for national uniformity suggests that FDA should provide more specific direction in this matter. FDA notes that it has already dealt with the issue of when a food should

be declared in terms of its drained weight in its regulation on serving sizes (§ 101.12). The agency's nutrition labeling requirements provide for declaration of nutrient information in terms of the serving size based on the reference amounts customarily consumed as set forth in § 101.12, and that section specifically provides for cases where the reference amounts are in terms of drained solids. Thus, FDA no longer has to make case-by-case assessments about whether the packing medium is always or almost always discarded before serving. Instead, the agency can now refer to § 101.12 in determining whether net contents declarations must include the packing medium. Therefore, FDA is proposing to require in § 101.200(a) that, except where the reference amount customarily consumed per eating occasion is in terms of drained solids in accordance with § 101.12, a food that is packed or canned in liquid, and that is required to bear a net contents declaration in terms of weight, shall bear a declaration expressed in terms of the total net contents including the liquid."

Here is the relevant text of the proposed §101.200 that can be used in making determinizations of whether or not a product should be labeled with drained weight:

§ 101.200 Declaration of net quantity of contents.

"(a) The principal display panel of a food in package form shall bear a declaration of the net quantity of contents… Except as provided for in § 101.12, a food that is packed or canned in liquid, and is required to bear a contents declaration in terms of weight, shall bear a declaration expressed in terms of the total net contents including the liquids. Where the reference amount in § 101.12 is declared in terms of drained solids, the contents declaration shall be in terms of drained weight…."

Footnote 3: Net Weight and Drained Weight Declarations May Appear on Package Labels.

This interpretation by the Food and Drug Administration (FDA) appears on page 9856 in the Federal Register / Vol. 62, No. 42 / Tuesday, March 4, 1997 / Proposed Rules.

"FDA points out that, for many years, it has had a policy of permitting both drained weight and net weight to be stated on the principal display panel (PDP) of a food label. However, some State regulatory agencies prohibit both drained weight and net weight from appearing on the PDP of a label because they consider one of the weight declarations to be in conflict with section 4(b) of the Fair Packaging and Labeling Act (FPLA), which prohibits qualifying words or phrases from appearing with the required net contents declaration. FDA advises that it does not believe that its policy in this regard conflicts in any way with section 4(b) of the FPLA. Although neither the language of the FPLA nor the regulations established thereunder provide clear guidance, the legislative history of the FPLA does. The May 25, 1966, Senate Report No. 1186, which addressed the meaning of the prohibition of supplemental statements, states:

> **"Subsection 4(b) prohibits the qualification of the separate net quantity statement by any modifying words or phrases. However, a supplemental statement of the net quantity of contents set apart from the separate net quantity of contents, required by the bill, may be modified by nondeceptive words or phrases, so long as such words or phrases do not tend to exaggerate the amount of the commodity contained in the package. For example, where a package contains a separate net quantity statement in conformity with promulgated regulations, such as ''6 oz. net weight,'' the package could also contain in a supplemental statement, apart from the required net quantity statement, the phrase ''6 oz. of fast acting X detergent'' but could not contain the statement ''6 jumbo oz. of X detergent'' at any place on the package* * *."**

From the above quote, it is obvious that the required declaration of net quantity may not contain statements designed to imply that one product is different in quantity from others declaring the same net contents. It is also obvious that Congress wanted the required declaration to be separate from supplemental statements designed to promote product sales. FDA has a regulation, § 101.105(o) (which would be redesignated as § 101.200(o)), that is intended to ensure that such separation exists by permitting supplementary net quantity statements on label panels other than the PDP. However, there is no indication in Senate Report No. 1186, or elsewhere in the legislative history of the FPLA, that congressional concern about a ''supplementary statement'' was intended to encompass other forms of nonmisleading information about

the quantity of contents than the one required. To the contrary, the broad congressional policy declared in section 2 of the FPLA states:

''Packages and labels should enable consumers to obtain accurate information as to the quantity of the contents and should facilitate value comparisons'' (15 U.S.C. 1451). Declaration of a statement of net quantity of contents in terms of both drained weight and net weight would not be inconsistent with this policy because such declarations advise consumers of the amount of food and the accompanying packing medium, thereby assisting purchasing decisions. Although the agency does not consider it necessary to codify the present policy of permitting both drained weight and net weight to be declared on the PDP of a food label, FDA solicits comments on whether it should codify this policy into its regulations.

Footnote 4. In a June 3, 1998 letter to Campbell Soup Company from the USDA, Food Safety and Inspection Service (FSIS), Office of Policy Program Development and Evaluation the trade custom of labeling the net quantity of contents of packages of beef and chicken broth by net weight instead fluid measure was recognized. A copy of the letter is available from the NIST Office of Weights and Measures at 301-975-4004 or owm@nist.gov.

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Table B. Method of Sale – Federal Trade Commission

The Net Quantity Declaration designated in this chart is that one used on the most common form of packaging for each commodity. If the product is packaged in multiple units or with other commodities, see "Multi-Unit Package," "Variety Package," or "Combination Package," as appropriate. As noted below the Uniform Regulation for the Method of Sale of Commodities (UMSCR) also includes methods of sale for several products or commodities. Additional detail on labeling requirements is also contained in the Uniform Packaging and Labeling Regulation (UPLR).

Product or Commodity	Net Quantity of Contents Declaration
Aerosol Containers	**Net Weight (See also Section 10.3 "Aerosols and Other Pre-Pressurized Containers Dispensing Product under Pressure" in the UPLR).**
Air Freshener	
Aerosol	**Net Weight**
Liquid	**Fluid Measure**
Cake	**Net Weight**
Aluminum Foil	
Cooking & Bakeware	**Count and inside dimensions (length, width, and depth, or diameter and depth). Depth of less than 5 cm (2 in) and capacity are optional. (See also Section 10.8. Measurement of Container-Type Commodities – How Expressed in the UPLR).**
Wrap	***See Food Wraps***
Bags	
Garbage, Trash, Food Storage, Leaf, Lunch, etc.	**Count and dimensions (width and length for non-gusseted; width, depth, and length for gusseted). Capacity is optional. (See also Section 2.13. "Polyethylene" in the UMSCR).**

Vacuum Cleaner, Disposable	**Count. (Make and model of vacuum for which intended, and name and place of business must appear on the principal display panel.)**
Bathmats, paper	**Count and dimensions (length and width in millimeters or centimeters and inches).**
Bathroom Tissue	**Total square meters and square feet, number of rolls (if more than one), number of tissues per roll, ply, plus length and width of each tissue in centimeters and inches.**
Batteries, Household	**Count. (Voltage and/or size are factors of identity, *not* quantity.)**
Bed Sheet, Paper	**Dimensions (length and width of finished item in millimeters or centimeters and inches).**
Bowls (Paper Foil, Plastic, etc.)	**Count and dimensions. (Depth and diameter (outer top rim) in inches.) Depth of less than 5 cm (2 in) and capacity are optional.**
Boxes, Food Storage	**Count and dimensions (length, width and depth). Capacity is optional. (See also Section 10.8. Measurement of Container-Type Commodities – How Expressed in the UPLR).**
Bulb, Light	**Count, if more than one. Voltage, wattage, lumens, size, etc., are factors of identity, *not* quantity.**
Butane Fuel	**Net Weight**
Calking Compounds	**Fluid Measure**
Candle	
Uniform Width or Diameter	**Dimensions (length and diameter or width, in millimeters or centimeters and inches).**
Tapered or irregularly shaped figures, numbers, etc.	**Length or height in millimeters or centimeters and inches. (diameter need not be expressed – See also 16 C.F.R. 501.7)**
Chamois	
Full Skin (shape of the animal)	**Total square meters and square feet**
Cut Skin (Square, Rectangular, or Pocket)	**Total square meters and square inches, followed in parentheses by square feet if more than one square foot.**
Charcoal Briquets	**Net Weight**
Christmas Decorations	
Balls	***See Ornaments***
Bulbs	***See Bulb, Light***
Garlands	***See Garlands***
Icicles or Tinsel	**Count, plus length of strands**
Ornaments	***See Ornaments***
Cigarette Paper	**Count**

Cleaning Compound	
Liquid	**Fluid Measure**
Powder, Cake, or Paste	**Net Weight**
Clothesline	***See Cordage***
Combination Package	**Count, weight volume, dimensions, or a combination thereof, for each commodity included. (See also Section 10.5. "Combination Packages" in the UPLR.**
Cooking and Bakeware Containers (Foil and Paper	***See Aluminum Foil***
Cordage	**Length in meters and feet (followed in parentheses by length in yards). Ply and diameter are optional. (Breaking strength and size designation are elements of identity.)**
Cups	
Drinking	**Count, plus fluid capacity (See also Section 10.8.3 Terms in the UPLR regarding the optional use of terms such as "fluid" with the capacity declaration.)**
Nut and Party	**Count, plus dimensions (top outside diameter, or length and width). Capacity is optional.**
Cooking and Baking (Foil or Paper)	**Count and inside dimensions (diameter and depth). Depth of less than 5 cm (2 in) and capacity are optional.**
Deodorizer	
Aerosol	**Net Weight**
Liquid	**Fluid Measure**
Cake	**Net Weight**
Detergent	
Liquid	**Fluid Measure**
Powder, Cake, or Granular	**Net Weight**
Diapers, Disposable	**Count and dimensions (length and width in millimeters or centimeters and inches). Dimensions may be omitted if diaper is in permanent pre-fold or form-fitted shape.**
Distilled Water	**Fluid Measure**
Doilies, Paper	**Count, plus dimensions (length and width, or diameter in millimeters or centimeters or inches).**
Drop Cloth (Plastic)	**Total square meters and square feet, plus length and width in the largest whole unit measurements.**
Dyes and Tints (Household)	
Powder	**Net Weight**
Liquid	**Fluid Measure**

Emory Cloth (Paper	***See Sandpaper***
Eyeglass Tissue	**Count**
Facial Tissue	**Count, ply, plus length and width of each tissue in millimeters or centimeters and inches.**
Film	
Bulk or Movie	**(See also Section 11.22. "Camera Film, Recording Tape, Audio Recording Tape and Other Image and Audio Recording Media Intended for Retail Sale and Consumer Use" in the UPLR).** **Number of meters or feet of usable film only.**
Still	**Number of exposures. Length and width of individual exposures in millimeters and inches are optional.**
Filters, Coffee	**Count and dimensions (length and width, or diameter).**
Fireplace Wood (See Section 2.4 in UMSCR)	
Cord Wood (Packaged)	**Cubic feet and liters (See 2.4. "Fireplace and Stove Wood" in the UMSCR.)**
Compressed Log	**Net Weight**
Flints, Lighter	**Count**
Food Storage	
Bags	***See Bags***
Boxes	***See Boxes, Food Storage***
Food Wrap (Plastic, Paper, Foil, etc.) (See Section 6.9. "Bi-dimensional Commodities" in the UPLR).	**Total square meters and square feet, plus length and width in largest whole measurement. (See also Section 6.9. Bi-Dimensional Commodities in the UPLR.)**
Fuses, Household	**Count (if more than one). Amperage, type, voltage, size, etc., are factors of identity, *not* net quantity.**
Garden Bags	***See Bags***
Garlands	**Length in meters and feet (followed in parentheses by yards). Ply and/or width in inches are optional.**
Glasses, Disposable	**Count, plus fluid capacity of each glass.**
Glue	
Liquid	**Fluid Measure**
Powdered	**Net Weight**
Grease, Household	***See Lubricants, Household***
Incense	**Count**
Laundry Supplies	
Liquid	**Fluid Measure**
Aerosol	**Net Weight**

Powder or Solid	**Net Weight**
Leaf Bags	***See Bags***
Light Bulbs	***See Bulbs, Light***
Lighter Fuel	
Non-pressurized	**Fluid Measure**
Pressurized (e.g., Butane)	**Net Weight**
Logs, Compressed	***See Fireplace Wood***
Lubricants, Household	
Liquid (Oil)	**Fluid Measure**
Powder, Paste, Solid, Semi-Solid, etc.	**Net Weight**
Lunch Bag	***See Bags***
Matches	
Wooden (Kitchen, Fireplace, etc.)	**Count plus length if they are extra-long intended for fireplace use, etc.**
Book-Matches (By the Box)	**Count (number of books, number of matches per book, total number of matches).**
Mucilage	**Fluid Measure**
Multi-Unit Package	**Count, plus weight, measure, or volume for each unit, followed by the total weight, measure, or volume, as appropriate. (See also Section 10.4. "Multiunit Packages" in the UPLR.**
Napkins, Paper	**Count, ply, plus length and width of each napkin in inches.**
Oil, Household	***See Lubricants, Household***
Ornaments, Christmas	**Opaque package – count and dimensions. Count only, if ornaments are clearly visible to retail purchaser at time of purchase. (See 16 C.F.R. 501.2)**
Paper: Crepe, Shelf, or Wrapping (Not Gift Wrap)	**Total square area, plus length and width in largest whole measurements.**
Paper Streamers	***See Tape***
Paste, Household	**Fluid Measure**
Patching Plaster	**Net Weight**
Pillow Case, Paper	**Dimensions (length and width of finished item in centimeters and inches only).**
Pipe Cleaners	**Count. Length for cleaners shorter or longer than the standard 152.4 mm (6 inches).**
Place Mats, Paper	**Count and dimensions (length and width in centimeters and inches only).**
Plastic Food Wrap	***See Food Wraps***

Plates, Disposable	**Count and outside dimensions (length and width or diameter, in centimeters and inches).**
Polish Cloth, Impregnated	**Dimensions (total square area plus length and width in the largest whole measurements).**
Polish	
Liquid	**Fluid Measures**
Aerosol	**Net Weight**
Powder, Granule, Cake, or paste	**Net Weight**
Propane Fuel	**Net Weight**
Rope, Household	***See Cordage***
Rubber Bands	**Net Weight**
Sandpaper (Fine, Medium, or Coarse, Grit, Etc.)	
One Grit Only (Fine, Medium or Coarse)	**Count and dimensions of each sheet (length and width in centimeters and inches).**
Assorted Grits	
a. Sheet Count for Each Type of Grit is Constant.	**Count of sheets per each type of grit, dimensions of each sheet (length and width in centimeters and inches), plus total sheet count.**
b. Total Sheet Count is Constant, but Sheet Count for Each Type of Grit Varies from Package to Package.	**Count and dimensions of each sheet (length and width in centimeters and inches). Identity must include term, "Assorted Miscellaneous Grits."**
Scouring Pads	
Steel Wool, Metal Coil, Plastic, Etc.	**Count plus dimensions (length, width and depth in centimeters and inches) for rectangular or square shaped pads.**
Soap	
Powder, Flake, Chip, Poufs, Cake, Ball, etc.	**Net Weight**
Liquid	**Fluid Measure**
Solder	**Net Weight in only. Percentage of composition, diameter, and core size are factors of identity *not* quantity.** **For Solder containing precious metals see 16 C.F.R. § 501.8 "Solder." Solder and brazing alloys containing precious metals when packaged and labeled for retail sale are exempt from the net quantity statement requirements of part 500 of this chapter which specify that all statements of weight shall be in terms of avoirdupois pound and ounce provided the net quantity declaration is stated in terms of the troy pound and ounce and the term troy is used in each declaration.**
Solder Flux	

Liquid	**Fluid Measure**
Paste	**Net Weight**
Spackling Compound	**Net Weight**
Sponge (Cellulose, Rubber, etc.)	
Standard Shapes	**Dimensions (length, width and thickness or diameter and thickness, in centimeters and inches).**
Irregular Dimensions	**Count, followed by the phrase "Irregular dimensions."**
Steel Wool, for finishing and polishing pads	**Count. Total net weight is optional.**
Straws, Drinking	**Count and length. Inside diameter is optional.**
String	***See Cordage***
Table Cover, Paper	**Dimensions (length and width in centimeters and inches).**
Tableware (Plastic Cutlery)	**Count (also see Variety Package)**
Tape	**Dimensions (width in centimeters and inches followed by length in largest whole measurement (e.g., meters and yards.)**
Tissue	***See Bathroom Tissue and Facial Tissue***
Toothpicks	**Count**
Towels, Paper	
Roll	**Total square meters and square feet, roll count (if more than one), number of towels per roll, ply, length and width of individual towels in centimeters and inches.**
Single	**Dimensions (length and width in centimeters and inches.)**
Trash Bags	***See Bags***
Twine	***See Cordage***
Vacuum Cleaner Bags	***See Bags***
Variety Package	**Weight, volume, measure and count, as appropriate, for each identical commodity, followed by total statement of quantity, as appropriate. (See also Section 10.6. "Variety Packages" in the UPLR.)**
Water, Distilled	**Fluid Measure**
Wax Paper	***See Food Wraps***
Wax	
Liquid	**Fluid Measure**
Aerosol	**Net Weight**

Paste, Cake, and Powder	Net Weight

Background/Discussion: See Appendix A, Page L&R-A194.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

NET – HANDBOOK 133

NET-4 3.4. Volumetric Test Procedures for Viscous Fluids - Headspace

Source:
NIST OWM (2019)

Purpose:
Change the specification for depth gage micrometers to reduce cost while maintaining accuracy. Require distilled water for use with pipets or burets. Clarify test procedures.

Item Under Consideration:
Amend NIST Handbook 133 as follows:

3.4. Volumetric Test Procedures for Viscous Fluids – Headspace

Depending on how level the surface of the commodity is, use one of two headspace test procedures. Use the ~~**headspace**~~ test procedure in Section 3.4.2.a. **"Test Procedure for Testing Oils, Syrups, and other Viscous Liquids with a Smooth and Level Surface"** to determine volume where the liquid has a level surface (e.g., oils, syrups, and other viscous liquids). Use the procedure in Section 3.4.2.b. **"Test Procedure for Testing Mayonnaise, Salad Dressing, and Water Immiscible Products with no Smooth and Level Surface"** to determine volume where the commodity does not have a level surface (e.g., mayonnaise and salad dressing).

Before conducting either of the following volumetric test procedures, follow Section 2.3.1. "Define the Inspection Lot." Use a "Category A" sampling plan in the inspection; select a random sample, then use one of the following procedures to determine lot compliance.

3.7.1. Test Equipment

- Micrometer depth gage (ends of rods **may be flat or** fully rounded) 0 mm to 225 mm (0 in to 9 in) or longer
- Level (at least 152 mm (6 in) in length)
- Laboratory pipets and/or buret
  - Class A 100 mL buret as defined by the latest version of ASTM E287, "Standard Specification for Laboratory Glass Graduated Burets."
  - Class A pipets, calibrated "to deliver "as defined by the latest version of ASTM E969, "Standard Specification for Glass Volumetric (Transfer) Pipets."
- **Distilled Water (for use with laboratory pipets and/or burets)**
- Volumetric measures

- Water
- Rubber bulb syringe
- Plastic disks that are 3 mm (P[1]P/R[8]R in) thick with diameters equal to the seat diameter or larger than the brim diameter of each container to be tested. The diameter tolerance for the disks is 50 µm (± 0.05 mm [± 0.002 in]). The outer edge should be smooth and beveled at a 30° angle with the horizontal to 800 µm (0.8 mm [P[1]P/R[32]R in]) thick at the edge. Each disk must have a 20 mm (¾ in) diameter hole through its center and a series of 1.5 mm (P[1]P/R[16]R in) diameter holes 25 mm (1 in) apart around the periphery of the disk and 3 mm (P[1]P/R[8]R in) from the outer edge. All edges must be smooth.
- Stopwatch
- Partial immersion thermometer (or equivalent) with 1°C (2 °F) graduations and a range of − 35 °C to + 50 °C (− 30 °F to + 120 °F) accurate to ± 1°C (± 2 °F)

3.7.2. Test Procedures

~~a.~~ Test Procedure for Testing Oils, Syrups, and other Viscous Liquids with a Smooth and Level Surface

Use the volumetric headspace procedure described in this section to determine volume when the commodity has a level surface. Open every package in the sample.
~~**Note: Make all measurements on a level surface.**~~

1. Bring the temperature of both the liquid and the water to be used to measure the volume of the liquid to the reference temperature specified in Table 3-1. "Reference Temperatures for Liquids." Verify with a thermometer that the product has maintained the reference temperature.

2. **Place the package on a level surface and open it.** Measure the headspace of the package at the point of contact with the liquid using a depth gage. ~~**with a fully rounded, rather than a pointed, rod end**~~. If necessary, support the package to prevent **deflection in** the bottom of the container **that may affect the volume.** ~~**from distorting.**~~

3. Empty, clean, and dry the package.

4. Refill the container with water measured from a volumetric standard to the original liquid headspace level measured in Step 2 of this procedure until the water touches the depth gage.

5. Determine the amount of water used in Step 4 of this procedure to obtain the volume of the liquid and calculate the "package error" based on that volume.

"Package Error" = Labeled Value – Measured Volume

~~b.~~ Test Procedure for Testing Mayonnaise, Salad Dressing, and Water Immiscible Products with no Smooth and Level Surface

Use the following volumetric headspace procedure to determine volume when the commodity does not have a level surface (e.g., mayonnaise, salad dressing, and other water immiscible products without a level liquid surface). The procedure guides the inspector to determine the amount of headspace above the product in the

package and the volume of the container. Determine the product volume by subtracting the headspace volume from the container volume. Open and test every package in the sample.

(Amended 2010)

Note: Make all measurements on a level surface.

1. Bring the temperature of both the commodity and the water used to measure the volume to the appropriate temperature designated in Table 3-1. "Reference Temperatures for Liquids."

2. Open the first package and place a disk larger than the package container opening over the opening.

3. Measurement Procedure:

   - Deliver water from a flask (or flasks), graduate, or buret, through the central hole in the disk onto the top of the product until the container is filled. If it appears that the contents of the flask may overfill the container, do not empty the flask. Add water until all of the air in the container has been displaced and the water begins to rise in the center hole of the disk. Stop the filling procedure when the water fills the center disk hole and domes up slightly due to the surface tension. Do not add additional water after the level of the water dome has dropped.

   - If the water dome breaks on the surface of the disk, the container has been overfilled and the test is void; dry the container and start over.

4. To obtain the headspace capacity, record the volume of water used to fill the container and subtract 1mL (0.03 fl oz), which is the amount of water held in the hole in the disk specified.

5. Empty, clean, and dry the package container.

6. Using Steps 3 and 4 of this procedure, refill the package container with water measured from a volumetric measure to the maximum capacity of the package, subtract 1 mL (0.03 fl oz), and record the amount of water used as the container volume; and

7. From the container volume determined in Step 6 of this procedure, subtract the headspace capacity in Step 4 of this procedure to obtain the measured volume of the product.

8. Calculate the "package error" for that volume where "package error" equals labeled volume minus the measured volume of the product.

3.7.3. Evaluation of Results

For either of the above procedures, follow the procedures in Section 2.3.7. "Evaluate for Compliance" to determine lot conformance.

Background/Discussion: See Appendix A, Page L&R-A196.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

NET-5 3.7. Volumetric Test Procedure for Paint, Varnish and Lacquers – Non-Aerosol

Source:
NIST OWM (2019)

Purpose:
Change the specification for depth gage micrometers to reduce cost while maintaining accuracy. Provide a more efficient and practical method of verifying net contents of containers of paint.

Item Under Consideration:
Amend NIST Handbook 133 as follows:

3.7. Volumetric Test Procedure for Paint, Varnish, and Lacquers– Non-Aerosol

~~**Use one of three different test methods depending upon the required degree of accuracy and the location of the inspection. The procedures include both retail and in-plant audits, and a "possible violation" method that is designed for laboratory or in plant use because of cleanup and product collection requirements. The procedures are suitable to use with products labeled by volume and packaged in cylindrical containers with separate lids that can be resealed.**~~ **The following procedure is used to verify the net quantity of contents of containers of paint, varnish, wood, stains, sealants, lacquers or like products labeled by volume. For the purposes of this test procedure the term "paint" includes any liquid or product (i.e., varnish lacquers, and other coatings)**.

3.7.1. Test Equipment

- A scale that meets the requirements in Section 2.2. "Measurement Standards and Test Equipment"
- Volumetric measures
- **Partial immersion thermometer (or equivalent with 1 °C (2 °F) graduations and a range of – 35 °C to + 50 °C (–30 2 °F to + 120 2 °F) accurate to ± 1 °C (± 2 °F)**
- Micrometer depth gage (ends of rods **may be flat** or fully rounded), 0 mm to 225 mm (0 in to 9 in)
- ~~**Diameter (Pi) tape measure, 50 mm to 304 mm (2 in to 12 in)**~~
- Spanning bar, 25.4 mm × 25.4 mm × 304 mm or (1 in × 1 in × 12 in)
- Rule, 304 mm (12 in)
- Paint solvent or other solvent suitable for the product being tested
- Cloth, 304 mm (12 in) square
- Wood, 50 mm (2 in) thick × 150 mm (6 in) wide × 300 mm (12 in) long
- Rubber mallet
- Metal disk **or other solid shape**, 6.4 mm (¼ in) thick and slightly smaller than the diameter of package container bottom **(used to support the bottom of package and prevent deflection that may affect the volume)**
- Rubber spatula
- Level at least 152 mm (6 in) in length
- Micrometer (optional)
- Stopwatch

3.7.2. Test Procedures

~~**a. Field (Retail) Auditing Procedure**~~

~~**Conduct a retail audit using the following test procedure that is suitable for checking cylindrical containers up to 4 L (1 gal) in capacity. Use Step 2 in the field (retail) auditing test procedure with any size container except 4 L (1 gal), but Step 3 must be used for containers with capacities of 4 L (1 gal). The method determines the volume of a single can in the sample selected as most likely to contain the smallest volume of product. Do not empty any containers since only their critical dimensions are being measured.**~~

~~**The configuration of the bottom of the can, paint clinging to the lid, and slight variations in the wall and label thicknesses of the paint container may produce an uncertainty estimated to be at least 0.6 % in this auditing procedure. Therefore, this method is recommended solely to eliminate from more rigorous testing those packages that appear to be full measure. Use the violation procedures when the volume determined in Step 10 is less than the labeled volume or in any case where short measure is suspected.**~~

~~**Note: When instructed to record a measurement in a column, refer to the numbered columns in the "Audit Worksheet for Checking Paint" in this section.**~~

~~**1. Select a random sample. A tare sample is not needed.**~~

~~**2. For containers less than 4 L or (1 gal):**~~

- ~~**Measure the outside diameter of each container near its middle to the closest 0.02 mm (0.001 in) using a diameter tape. Record the measurements in Column 3.**~~
- ~~**Place the containers on a level surface and using the micrometer depth gage, record their heights in Column 1 on the worksheet.**~~
- ~~**If the range of outside diameters exceeds 0.125 mm (0.005 in) or the range in heights exceeds 1.58 mm (0.062 5 in), do not use this procedure. If the ranges are within the specified limits, weigh all cans in the sample, select the container with the lightest gross weight, and remove its lid. Continue with Step 4 below.**~~

~~**3. For 4 L (1 gal) containers:**~~

- ~~**Gross weigh each package in the sample.**~~
- ~~**Select the package with the lightest gross weight and remove its lid.**~~

~~**4. Use a direct reading diameter tape measure to measure the outside diameter of the selected container near its top, middle (already measured if Step 2 was followed), and bottom to the closest 0.02 mm (0.001 in). Record these measurements in Columns 2, 3, and 4. Add the three diameter values and divide by three to obtain the average diameter and record this value in Column 5.**~~

~~**5. If a micrometer is available, measure the wall and the paper label thickness of the container; otherwise, assume the wall and label thicknesses given in Table 3-3. "Thickness of Paint Can Walls and Labels" below:**~~

~~**Subtract twice the thickness of the wall of the can and paper label from the average can diameter (Step 4) to obtain the average liquid diameter. Record the liquid diameter in Column 6.**~~

~~6. On a level surface, place the container on the circular metal disk that is slightly smaller in diameter than the lower rim of the can so the bottom of the container nests on the disk to eliminate any "sag" in the bottom of the container.~~

~~7. Place the spanning bar and depth gage across the top of the paint can and mark the location of the spanning bar on the rim of the paint container. Measure the distance to the liquid level, to the nearest 20 µm (0.02 mm) (0.001 in), at three points in a straight line. Take measurements at points approximately 1 cm (P³p/R₈R in) from the inner rim for cans 12.5 cm (5 in) in diameter or less (and at 1.5 cm [P¹p/R₂R in] from the rim for cans exceeding 12.5 cm [5 in]) in diameter and at the center of the can. Add the three readings and divide by three to obtain the average distance to the liquid level in the container. Record the average distance to the liquid level in Column 7.~~

~~8. Measure the distance to the bottom of the container at three points in a straight line in the same manner as outlined in Step 7. Add the three readings and divide by three to obtain the average height of the container and record it in Column 8.~~

~~9. Subtract the average distance to the liquid level (Column 7) from the average height of the container (Column 8) to obtain the average height of the liquid column and record it in Column 9.~~

~~10. Determine the volume of paint in the container by using the following formula:~~

~~$Volume = 0.7854 D P^2 P H$~~

~~Where D = average liquid diameter (Column 6) and~~
~~H = average liquid height (Column 9)~~

~~11. Record this value in Column 10. If the calculated volume is less than labeled volume, go to the Section 3.7.2.c. "Violation Procedure."~~

~~Table 3-3.~~
~~Thickness of Paint Can Walls and Labels~~

~~Can Size~~	~~Wall Thickness~~
~~4 L (1 gal)~~	~~250 µm (0.25 mm) [0.010 in]~~
~~2 L (½ gal)~~	
~~1 L (1 qt)~~	~~230 µm (0.23 mm) [0.009 in]~~
~~500 mL (1 pt)~~	
~~250 mL~~	~~200 µm (0.20 mm) [0.008 in]~~
~~Label Thickness* for all can sizes: 100 µm (0.10 mm) [0.004 in]~~ ~~(*Paper only – ignore labels lithographed directly onto the container)~~	

~~Note: Use the following format to develop worksheets to perform audits and determine the volume when checking paint. Follow the procedure and it will indicate the column in which the various measurements made can be recorded.~~

~~Example: Audit Worksheet for Checking Paint (add additional rows as needed)~~									
	~~Can Diameter~~								
~~1. Can Height~~	~~2. Top~~	~~3. Middle~~	~~4. Bottom~~	~~5. Average~~	~~6. Avg. Liquid Diameter~~	~~7. Avg. Liquid Level~~	~~8. Avg. Container Depth~~	~~9. Avg. Liquid Depth~~	~~10. Volume P[1]~~
~~[1]10. Volume = 0.7854 × 6 × 6 × 9~~									

a. Plant Audit Test Procedure

Use the following procedure to conduct an ~~in-plant~~ audit inspection i**n a production facility**. This method applies to a ~~container~~ **containers in a sample** that ~~probably~~ **are the lightest in weight and likely to contain** ~~contains~~ the smallest volume of product. Duplicate the level of fill with water in ~~a~~ **an empty unused container** ~~can~~ of the same dimensions **and capacity** as the one under test. Use this method to check any size of package if the liquid level is within the measuring range of the depth gage. If any paint is clinging to the sidewall or lid, carefully scrape the paint into the container using a rubber spatula **to ensure the full volume is measured**.

Note: When instructed to record a measurement in a column, refer to the numbered columns in the "Audit Worksheet for Checking Paint" in Section 3.7.2.a.

- ~~Follow Steps 1 through 6 of the Field Retail Audit Test in Section 3.7.2.a.~~ **Follow Section 2.3.1. "Define the Inspection Lot" to determine which "Category A" sampling plan to use; select a random sample. (Note: The sample containers should be identically labeled as to volume, brand, commodity, color, and lot.) Select a random**

- **Determine the gross weight of the sample container. Record the gross weights of the lightest and heaviest container.**

1. ~~Place the spanning bar and depth gage across the top of the paint can. Measure the liquid level at the center of the surface and record the level in Column 7.~~ **Select the lightest container and place it on a level work surface and open it. Place a spanning bar and depth gage across the top center of the container. Lower the depth gage rod until its point touches the surface of the paint and lock the rod adjustment.**

2. ~~Select an empty can with the same bottom configuration as the container under test and with a diameter and height equal to that of the container under test within plus or minus the following tolerances:~~

   - ~~For 500 mL or (1 pt) cans – within 25 µm (0.025 mm) (0.001 in)~~
   - ~~For 1 L or (1 qt) cans – within 50 µm (0.05 mm) (0.002 in)~~
   - ~~For 2 L or (½ gal) cans – within 75 µm (0.075 mm) (0.003 in)~~
   - ~~For 4 L or (1 gal) cans – within 100 µm (0.1 mm) (0.004 in)~~

Obtain an empty, unused – undamaged container of the same type and capacity as the container under test from the packer. Place the container on a rigid level work surface and place a disk or other appropriate support under the bottom to prevent deflection.

3. ~~**Set the empty can on a level work surface with a circular metal disk that is slightly smaller in diameter than the bottom can rim underneath the can to eliminate sag. Set up the spanning bar and depth gage as in Step 2 above. Fill the container with water from a volumetric measure of the same volume as the labeled volume. Measure the distance to the liquid level at the center of the container and record this level in Column 7 below the reading recorded in Step 2. If this distance is equal to or greater than the distance determined in Step 2, assume that the package is satisfactory. If the distance is less than the distance determined in Step 2, the product may be short measure. When the audit test indicates that short measure is possible use the "Violation Procedure" in Section 3.7.2.c.**~~ **Use a volumetric flask or cylinder to fill the container with water [water reference temperature 20 °C ± 2 °C (68 °F ± 5 °F)] to the largest labeled quantity declared on the container.**

4. **Place the spanning bar and depth gage (locked at the surface depth of the paint in the container measured in Step 2.) across the top center of the container. If the point of the depth gage is at or below the surface of the water added in Step 4. assume the container is not short measure. When the audit test indicates that a short measure may exist in the sample container then use the test procedure in Section 3.7.2.b. "Violation Procedure".**

~~a. Violation~~ b. Test Procedure

Use the following ~~**method if the liquid level is within the measuring range of the micrometer**~~ **procedure should be used when testing paint outside the plant and inside the plant if the sample fails the plant audit test.**

Note: Do not shake or invert the containers selected as the sample.

1. Follow Section 2.3.1. "Define the Inspection Lot" to determine which "Category A" sampling plan to use; select a random sample. **(Note: The sample containers should be identically labeled as to volume, brand, commodity, color, and lot.)** The steps noted with an (*) are required if there is paint adhering to the lid and it cannot be removed by scraping into the can.

2. Determine the gross weight of these ~~**packages**~~ **containers** and record in Column 2 of the "Worksheet for Possible Violation in Checking Paint" ~~**worksheet**~~. (in this section). **Select and test the containers in order of the lightest to the heaviest.**

3. Record the labeled volume of the first tare sample container in Column 1 of the worksheet. **Place the container on a level surface and use** ~~**Use**~~ a circular **(or appropriately shaped)** metal **or other solid** disk to eliminate **deflection in the bottom of the container** ~~**can "sag"**~~ and remove the lid. If paint clings to the lid of the container, scrape it off with a spatula **and place into the container.**

4.* If paint that adheres to the lid cannot be completely removed by scraping the paint into the ~~**can**~~ **container**, determine the weight of the lid plus any adhering paint. Clean (dry) the paint lid with solvent and weigh again. Subtract the clean (dry) lid weight from the lid weight with paint (wet) to determine the weight of the paint adhering to the lid. Record this weight in Column 3.

5. Place the spanning bar and depth gage across the top **center** of the ~~**paint can**~~ **container**. Mark the location of the spanning bar on the rim of the ~~**paint**~~ container. **Lower the depth gage rod until the point touches the paint surface and lock the rod adjustment.** ~~**Measure the distance to the liquid level at the center of the container to the nearest 20 µm (0.02 mm) (0.001 in). Record the distance in Column 4.**~~

6. Empty and clean the sample container and lid with solvent; dry and weigh the container and lid. Record the tare weight in Column 5.

7. Set up the container in the same manner as in Step 3.

8. Place the spanning bar at the same location on the rim of the paint container as marked in Step 5. With the depth gage set as described in Step 5, deliver water into the container in known amounts until the water reaches the same level occupied by the paint as indicated by the depth gage. Record this volume of water (in mL or fl oz) in Column 6 of the worksheet. This is the volume occupied by the paint in the container. Follow Steps 9a, 10a, and 11a if scraping does not remove the paint from the lid. ~~**In order**~~ **To** determine if gravimetric testing can be used to test the other ~~**packages**~~ **containers** in the sample, follow only Steps 9, 10, and 11 when no paint adheres to the lid.

9. Subtract the weight of the container (Column 5) from the gross weight (Column 2) to arrive at the net weight of paint in the selected container. Record the net weight in Column 7 of the worksheet.

   9a.* Subtract the weight of the container (Column 5) and the weight of product on the lid (Column 3) from the gross weight (Column 2) to arrive at the net weight of paint in the container. Record in Column 7 (excluding the weight of the paint on the lid).

10. Calculate the weight of the labeled volume of paint (for the first package opened for tare).

    net weight (Column 7) × labeled volume (Column 1) ÷ volume of paint in can (Column 6)

    Record this value in Column 8.

    10a.* Calculate the package volume =

    volume in can (Column 6) + (lid weight [Column 3] × volume in can [Column 6] ÷ net weight [Column 7])

    Record it in Column 9 of the worksheet.

11. Calculate the package error. Use the following formula if paint does not adhere to the lid.

    Package error = (Column 6 value) − (labeled volume)

    11a.* Use the following formula if paint does adhere to the lid and will not come off by scraping.

    Package error = (Column 9 value) − (labeled volume)

12. Repeat Steps 2 through 11 for the second package chosen for tare.

Worksheet for Possible Violation in Checking Paint (add additional rows as needed)								
1. Labeled Volume	**2. Gross Weight**	**3. Lid Weight (Wet − Dry)**	**4. Liquid Level**	**5. Tare**	**6. Water Volume**	**7. Net Wt. = 2 − 5**	**8. Weight of Labeled Volume = 7 × 1 ÷ 6**	**9. Package Volume = 6 + [(3 ÷ 7) × 6)]**

Note: A gravimetric procedure can be used if the weights of the labeled volume for the first two ~~**packages**~~ **containers** do not differ from each other by more than one division on the scale (if they meet this criterion, check the rest of the sample gravimetrically and record in Column 8). The weight of a given volume of paint often varies considerably from container to container; therefore, volumetric measurement may prove necessary for the entire sample **using the headspace procedure in Step 8. To determine the volume and enter the Package Volume in Column 9. Proceed to procedures in Section 2.3.7. "Evaluate for Compliance".**

Note: To conserve inspection time and reduce destructive testing the inspector may stop testing if first few containers contain the correct volume and consider this test as an audit. However, the inspector may continue to test the complete sample to determine the average fill level of the entire sample.

13. Use Section 2.3.6. to determine the "Nominal Gross Weight" as follows:

    The nominal gross weight equals the sum of the average weight of the labeled volume (average of values recorded in Column 8) plus the average tare (average of values recorded in Column 3) for the ~~**packages**~~ **containers** selected for tare.

    Note that the weight of a given volume of paint often varies considerably from container to container; therefore, volumetric measurements may prove necessary for the entire sample.

3.7.3. Evaluation of Results

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

Background/Discussion: See Appendix A, Page L&R-A197.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

NET-6 Section 4.8. Procedure for Checking the Area Measurement of Chamois

Source:
NIST OWM (2019)

Purpose:
To update and revise test procedure 4.8. Procedure for Checking the Area Measurement of Chamois.

Item Under Consideration:
Amend NIST Handbook 133 as follows:

4.8. Procedure for Checking the Area Measurement of Chamois

Chamois is natural leather made from skins of sheep and lambs that have been oil-tanned. Chamois are irregularly shaped, which makes area measurement difficult. ~~**Because of these characteristics, an accurate area determination can only be made using an internationally recognized method of conditioning (rehydrating) and measurement. Chamois is produced in a wet manufacturing process, so it has high moisture content at time of measurement. Chamois is hydroscopic; therefore, its dimensions and total area change as it loses or absorbs moisture**~~. It is also subject to wrinkling. Because of the variation of the thickness and density, and therefore the weight per unit area of chamois, **the traditional** ~~**an estimated gross weight**~~ **gravimetric** procedure cannot be used to verify the labeled area declaration.

~~**Standard Test Conditions: As with all hydroscopic products, reasonable variations in measure must be allowed if caused by ordinary and customary exposure to atmospheric conditions that normally occur in good**~~

~~distribution practice. Both federal and international standards specify procedures to restore the moisture content of chamois so that tests to verify dimensions and area can be conducted.~~

~~Federal Test Method Standard 311, "Leather, Methods of Sampling and Testing," (January 15, 1969) defines the standard atmospheric condition for chamois as 50 ± 4 % relative humidity and 23 ± 2 °C (73.4 ± 3.6 °F). The chamois is considered to be at equilibrium moisture when the difference in two successive weighings, made at 1 hr intervals, is no greater than 0.25 % (e.g., the maximum change in weight on a 100 g sample in two successive weighings is less than 0.25 g (250 mg).~~

The area of chamois is verified using a two-stage test procedure. The first stage is a~~n field~~ audit **test procedure** using the ~~template~~ **graph paper** test **method** ~~procedure~~. ~~This test is used for field audits because it is simpler to perform and does not require the chamois to be conditioned.~~ The ~~field~~ audit is used to identify chamois that are potentially under measure. ~~It is not as accurate as the gravimetric procedure because some error results from reading the area from the template~~. **Use the** ~~The~~ gravimetric procedure ~~should be used~~ for compliance testing~~. because it includes conditioning (rehydrating) the chamois.~~

4.8.1. ~~Template~~ Graph Paper Test Method (for ~~field~~ audits)

Chamois is labeled in uniform sizes in terms of square decimeters and square feet, and are sized in increments of **2.32 dm^2 (1/4 ft^2)** (e.g., **9.29 dm^2 (1 ft^2), 11.61 dm^2 (1 1/4 ft^2),** and **13.93 dm^2 (1 1/2 ft^2)**.

4.8.1.1. Test Equipment

- ~~Use~~ **Graph Paper: 43.18 cm x 55.88 cm (17 in x 22 in) with 0.5 cm (1/4 in) squares.** ~~a transparent, flexible template that is graduated in square centimeters or square inches and that has been verified for accuracy. The template must be large enough to completely cover the chamois under test.~~

- **Ruler: 300 mm (12 in) with 0.5 cm (1/4 in) graduations.**

4.8.1.2. Audit Test Procedure

1. Select a random sample of chamois. ~~Separate the chamois into different sizes and define the inspection lot by specific sizes~~ **It is recommended that a minimum of three packages be tested.**

2. **The** ~~Place the~~ **graph paper** ~~template over the chamois specimen~~ **must be o**n a smooth surface. **Prior to using any graph paper use a calibrated ruler to verify the dimensions of squares at several random points across the page.** ~~Determine the area by counting the number of squares that the chamois covers. the surface of the chamois. Estimate parts of the template that do not completely cover the chamois by adding the number of partially covered square blocks. (See Figure 4-3. "Template for Checking the Area of a Chamois") Compute the total area and refer to the Decision Criteria below Section 4.8.3. to determine if further action is necessary.~~ **Place the chamois on the graph paper. Carefully draw around the outline of the skin on the paper.**

3. **Note: It may be necessary to tape sheets of graph paper together to create an area sufficient in size to measure the area for a chamois greater than 23.22 dm^2 (2.5 sq ft). Determine the area by counting the number of squares the chamois covers. Use a ruler to help calculate the area. Add the number of partially covered squares. (See Figure 4-3. "Template for Checking the Area of a Chamois.") Compute the total area and refer to the Decision Criteria ~~Section 4.8.3.~~ to determine if further action is necessary.**

First Stage – Decision Criteria

If the average **of the samples is a** minus error **that** exceeds 3 % of the labeled area, the chamois may not be labeled accurately. To confirm the finding, ~~**the sample must be taken to a laboratory for conditioning and testing using**~~ **use** the gravimetric test procedure.

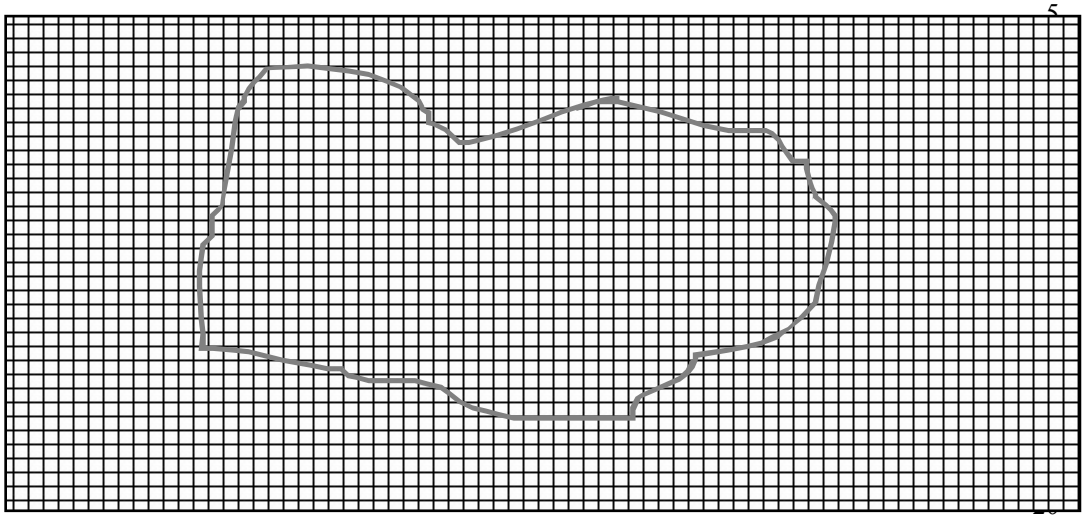


Figure 4-3. Template for Checking the Area of Chamois.

4.8.2. Gravimetric Procedure for Area Measurement

~~**This test cannot be performed in the field because the samples must be conditioned with water before testing.**~~ This method is intended for use in checking full or cut skins, or pattern shapes. ~~**Open and condition all the packages in the sample before determining their area on the recommended paper. Conditioning and verifying chamois can be accomplished without destroying the product. When successful tests are completed, the chamois may be repackaged for sale, so do not destroy the packaging material.**~~

4.8.2.1. Test Equipment

- Scale with a capacity of 1 kg that is accurate to at least ± 0.01 g and a load-receiving element of adequate size to properly hold the chamois **(record to 0.1 g)**
- ~~**Atomizer or trigger-type sprayer and sealable, airtight polyethylene bags**~~
- Medium weight drawing paper (e.g., drawing paper, medium weight (100 lb), regular surface or comparable)
- A household iron **set on the lowest** ~~**with low**~~ temperature settings **(e.g., silk)** 30 °C to 40 °C (86 °F to 104 °F)
- Ruler or tape that is graduated in **0.5** centimeters or **¼** inches
- Instrument for cutting paper (razor blade, scissors, or cutting board)

~~**Sample Conditioning**~~

- ~~**Remove each sample from its package and weigh and record each weight. Using an atomizer-type sprayer, spray water in the amount of 25 % of the weight of each skin uniformly over its area. Place wetted chamois in an airtight polyethylene bag; seal the bag, and leave it in this condition at room temperature for 24 hours.**~~

- ~~**Open the bag, remove the chamois, and reweigh the chamois to confirm that it retained maximum moisture. (This is done by confirming that the difference in the two consecutive weighings conducted an hour apart does not exceed 0.25 %.)**~~

- ~~**Place the chamois flat on a continuous piece of drawing paper. To remove wrinkles and make the chamois lie flat, use a normal domestic iron that is heated to a maximum of 30 °C to 40 °C (86 °F to 104 °F). Place the iron on the bottom of the skin, and iron the skin up from the center to the top. Then, iron the skin from the center out to each side. Iron until the skin is fully extended and perfectly flat.**~~

4.8.2.2. Test Procedure

1. **Use a normal domestic iron set on the lowest setting (e.g., silk) to remove wrinkles. Iron the skin from the middle out to the edges (each time always starting in the middle and moving outward) in all directions in an effort to spread out and flatten the wrinkles. You may not be able to remove all wrinkles. Use a swift, steady motion, be careful to not let the iron stay in contact with the chamois surface for too long. Excessive heat will shrink the fiber.**

~~1.~~ **2.** Immediately after ironing **the sample**, carefully draw around the outline of the skin on the paper. Remove the skin; carefully cut along the outline of the skin; weigh the cutout pattern, and record to the nearest 0.1 g Sample Weight 1 (W_1).

~~2.~~ **3.** Lay out the pattern and cut an accurately measured rectangle of a size not less than one-half the area of the pattern. **Do this for each sample.** Weigh the cutout rectangle and record the weight to the nearest 0.1 g Sample Weight 2 (W_2). Calculate the area of the rectangle cut from the patterns by multiplying length by width and record as Area (A) in centimeters or square inches.

- For metric units – calculate the area of the original skin being checked as follows:

$$W_1/W_2 \times A = \text{Skin Area in } cm^2/100 = \text{Area in } dm^2$$

- For U.S. customary units – calculate the area of the original skin being checked as follows:

$$W_1/W_2 \times A = \text{Skin Area in } in^2/144 = \text{Area } ft^2$$

4.8.3. Evaluation of Results

Compute the average error for the sample and follow the procedures in Section 2.3.7. "Evaluate for Compliance to determine lot conformance.

Background/Discussion: See Appendix A, Page L&R-A200.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

NET-7 D Section 4.XX. Softwood Lumber

Source:
NIST OWM (2018)

Purpose:
Provide inspectors and industry with a HB133 uniform test procedure for softwood lumber.

Item Under Consideration:
Amend NIST Handbook 133 as follows:

Section 4.XX. Softwood Lumber

4.XX. Softwood Lumber

4.XX.1. Test Equipment

- **304 mm (12 in) caliper with 0.01 mm (0.0005 in) graduations (or digital equivalent) for labeled dimensions up to 304 mm (12 in).**
- **Set of precision gage blocks.**
- **For labeled dimensions exceeding 304 mm (12 in), a steel linear measure with 1 mm (1/16 in or 0.062 in) graduations.**
- **Calculator**
- **Dimensional Lumber Worksheet**
- **Wood moisture meter (i.e., A meter equipped with a probe or dual probes and a hammer head handle for inserting the probes into the sample and that can have the moisture values manually or automatically corrected for different species of wood.)**
- **The latest version of U.S. Department of Commerce (DOC), Voluntary Product Standard PS 20 "American Softwood Lumber Standard."**

4.XX.2. Test Procedure

This procedure may be used to verify the width, length, and thickness of regularly shaped dimensional lumber. Softwood lumber is generally represented by both the nominal dimension and the minimum dressed sizes. Testing is based on the minimum dressed sizes for both unseasoned (green) and dry lumber as found in the latest version of Voluntary Product Standard PS 20 "American Lumber Softwood Standard." Lumber substitutes (i.e., composite) are not covered under Voluntary Product Standard PS 20 "American Lumber Softwood Standard." and must be labeled by actual dimensions.

NOTE: Lumber substitutes must be labeled by their actual dimensions.

1. **Follow Section 2.3.1. "Define the Inspection Lot." Use a "Category A" sampling plan in the inspection; select a random sample.**
   - **The lot must be sorted by like items (i.e., species, grade, dry) including dimensions and mill number. Identify the nominal size of each piece (e.g., 38 mm × 89 mm [2 in × 4 in], 38 mm × 286 mm [2 in × 12 in], or 19 mm × 140 mm [1 in × 6 in]) and the minimum dressed size using the latest version of Voluntary Product Standards PS-20, "American Softwood Lumber Standard."**
   - **Conduct a visual inspection of each piece to ensure there are no signs of water or other damage. Remove any pieces (e.g., top, sides) that have damage or have been exposed to the elements (e.g., weather, rain, moisture, sun) from the lot (See Figure X. Example of lumber dimensions measured).**
2. **Verify the accuracy of the calipers using the gage blocks. Use the calipers to measure thickness and width and record the actual dimensions on the "Worksheet for Softwood Lumber."**
   - **For commodities labeled 3 m (10 ft) or less in length, take a minimum of three measurements across the thickness and three measurements across the width.**

Measurements should be evenly spaced at equal intervals (i.e., at locations approximately ¼, ½, and ¾ across the thickness and width). Calculate the average thickness and width measurement of each piece of wood.

- **For commodities labeled greater than 3 m (10 ft) in length, take one additional measurement per every additional 1.8 m (6 ft) or portion thereof.**

Note: Do not take measurements within 150 mm (6 in) from the ends or in areas where the lumber has a knot or damage would affect the measurement.

3. Use a steel linear measure to determine the length of the piece of wood and record the actual length on the worksheet.

- **Take a minimum of three measurements across the length. Measurements should be evenly spaced at equal intervals (i.e., at locations across the length at approximate intervals of ¼, ½, and ¾ distance). Calculate the average length measurement of each piece of wood (See Figure X. Example of lumber dimensions measured).**

Note: Do not take measurements in areas where the lumber has a knot or damage, which would affect the measurement.

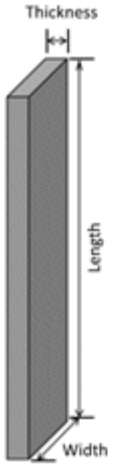


Figure X. Example of lumber dimensions measured.

4.XX.2.1. Shrinkage Allowance

Lumber is a product that shrinks and swells with changes in moisture content. The thickness and width of the lumber changes approximately 1 % for each 4 % change in moisture content and moisture shrinkage allowances shall be considered. The length of lumber changes only minimally (0.1 % to 0.2 %) when going from green to oven-dry, therefore no measurement adjustment or allowance is applicable to length measurements.

a. Dry Lumber

The latest version of U.S. DOC, Voluntary Product Standard PS 20 "American Softwood Lumber Standard" defines dry lumber as being 19 % or less in moisture content.

1. Compare the actual dimensions of thickness, width, and length of each piece to the minimum dressed sizes in NIST Handbook 130, "Uniform Regulation for the Method of Sale of Commodities" Table 1. "Softwood Lumber Sizes" and record the differences as errors on the worksheet.

2. Calculate the average errors for thickness, width, and length. The dressed sized can exceed the nominal value for an individual piece.

3. If the average error for any thickness or width measurement is a minus value, or if the MAV is exceeded, perform a moisture test on each piece using a wood moisture meter to determine if a moisture shrinkage allowance should be applied. Apply the appropriate allowance to each piece, then re-calculate the average error and re-determine compliance with the MAV. If the average error is a minus value for any length measurement, or if the MAV is exceeded for any length measurement the lot fails. No moisture shrinkage allowance is applied to length (See Table X-X. Determining Moisture Shrinkage Allowance for Dry Lumber Thickness and Width Dimensions Only.)

- **If the moisture content of the piece is equal to or greater than 19 %, the sample piece fails. No moisture shrinkage allowance is provided.**

Table X-X. Determining Moisture Shrinkage Allowance for Dry Lumber Thickness and Width Dimensions Only	
If the Moisture Content is:	**Allow the Following Moisture Shrinkage Allowance:**
15.0 % - 18.9 %	**1 %**
	0.7 % for Redwood, Western Red Cedar, and Northern White Cedar
11.0 % - 14.9 %	**2 %**
	1.4 % for Redwood, Western Red Cedar, and Northern White Cedar
7.0 % - 10.9 %	**3 %**
	2.1 % for Redwood, Western Red Cedar, and Northern White Cedar
3.0 % - 6.9 %	**4 %**
	2.8 % for Redwood, Western Red Cedar, and Northern White Cedar

b. Unseasoned (Green) Lumber

The latest version of Voluntary Product Standard PS 20 "American Lumber Softwood Standard" defines unseasoned (green) lumber as being over 19 % in moisture content.

1. Compare the actual dimensions of thickness, width, and length of each piece to the minimum dressed sizes in NIST Handbook 130, "Uniform Regulation for the Method of Sale of Commodities," Table 1. "Softwood Lumber Sizes" and record the differences as errors on the worksheet.

2. Calculate the average errors for thickness, width, and length. The dressed size can exceed the nominal value for an individual piece.

3. If the average error for any thickness or width measurement is a minus value, or if the MAV is exceeded, perform a moisture test on each piece using a wood moisture meter to determine if a moisture shrinkage allowance should be applied. Apply the appropriate allowance to each piece, then re-calculate the average error and re-determine compliance with the MAV. If the average error is a minus value for any length measurement, or if the MAV is exceeded for any length measurement the lot fails. No moisture shrinkage allowance is applied to length.

- **If the moisture content of the piece is equal to or greater than 30 % the sample piece fails. No moisture allowance is provided (See Table X-X. Determining Moisture Shrinkage Allowance for Unseasoned (Green) Lumber)**

- **Thickness and Width Dimensions Only.**

Table X-X. Determining Moisture Shrinkage Allowance for Unseasoned (Green) Lumber Thickness and Width Dimensions Only	
If the Moisture Content is:	**Allow the Following Moisture Shrinkage Allowance:**
26.0 % - 29.9 %	**1 %** **0.7 % for Redwood, Western Red Cedar, and Northern White Cedar**
22.0 % - 25.9 %	**2 %** **1.4 % for Redwood, Western Red Cedar, and Northern White Cedar**
18.0 % - 21.9 %	**3 %** **2.1 % for Redwood, Western Red Cedar, and Northern White Cedar**
14.0 % - 17.9 %	**4 %** **2.8 % for Redwood, Western Red Cedar, and Northern White Cedar**
10.0 % - 13.9 %	**5 %** **3.5 % for Redwood, Western Red Cedar, and Northern White Cedar**
6.0 % - 9.9 %	**6 %** **4.2 % for Redwood, Western Red Cedar, and Northern White Cedar**
2.0 % - 5.9 %	**7 %** **4.9 % for Redwood, Western Red Cedar, and Northern White Cedar**

4.XX.3. Evaluation of Results

1. **To determine lot conformance, return to Section 2.3.7. "Evaluate for Compliance."**

2. **If the sample pieces do not meet the average and MAV requirement based on the minimum dressed sizes after the shrinkage (moisture) allowances are considered, the lot fails. Place the Inspection Lot on hold.**

   ***Inspectors should notify the American Lumber Standard Committee (ALSC) of any lots that fail compliance.**

   American Lumber Standard Committee, Inc.
   7470 New Technology Way, Suite F.
   Frederick, MD 21703
   301-972-1700 or 301-540-8004
   E-mail: alsc@alsc.org
   URL: www.alsc.org

(Added 20XX)

Worksheet for Softwood Lumber

Product:		**Manufacturer/Mill Number:**	
Labeled Dimensions:		**Address:**	**City/State/Zip:**
Length:			
Width:		**Brand/Grade/Surface:**	**Testing Location:**
Thickness:			

Piece Number	Average Length	Average Width	Average Thickness		Piece Number	Average Length	Average Width	Average Thickness
1.					7.			
Error:					Error:			
2.					8.			
Error:					Error:			
3.					9.			
Error:					Error:			
4.					10.			
Error:					Error:			
5.					11.			
Error:					Error:			
6.					12.			
Error:					Error:			
Total Average:								
Average Error:								

Rev. (XX/XX)

1

Worksheet for Softwood Lumber

MAV for Packages Labeled by Length, Width, or Area (Table 2-8)

(Note: Lumber of a predetermined dimension is considered a "package" as defined by NIST Handbook 130, "Uniform Packaging and Labeling Regulations.)

- **1 m (1 yd) or less in 3 % of labeled quantity.**
- **More than 1 m (1 yd) to 43 m (48 yd) is 1.5 % of labeled quantity.**

Section 1. Compliance with Maximum Allowable Variation

1. Calculate the MAV for labeled thickness = _____. Do any of the minus errors for thickness exceed the MAV?

a. If yes, go to Section 5.

b. If no, go to Section 2.

2. Calculate the MAV for length = _____. Do any of the minus errors for width exceed the MAV?

a. If yes, go to Section 5.

b. If no, go to Section 3.

3. Calculate the MAV for labeled width = _____. Do any of the minus errors for length exceed the MAV?

a. If yes, go to Section 5.

b. If no, go to Section 4.

Section 2. Compliance with the Average Requirement – Thickness

4. Calculate the Average Error for labeled thickness _____. The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 3. If the Average Error is a negative number, go to Step 5.

5. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 6.

(s) _____ **× (*SCF*)** _____ **= *SEL*** _____

6. Disregarding the signs, is the *SEL* in Step 5 larger than the Average Error in Step 4? If yes, the lot passes on thickness. If no, go to Section 3.

Section 3. Compliance with the Average Requirement – Length

7. Calculate the Average Error for labeled length . The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 4. If the Average Error is a negative number, go to Step 8.

8. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 9.

(s)* × (*SCF*) = *SEL

9. Disregarding the signs, is the *SEL* in Step 8 larger than the Average Error in Step 7? If yes, the lot passes on length. If no, go to Section 4.

Section 4. Compliance with the Average Requirement – Width

10. Calculate the Average Error for labeled width . The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 6. If the Average Error is a negative number, go to Step 11.

11. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 12.

(s)* × (*SCF*) = *SEL

12. Disregarding the signs, is the *SEL* in Step 11 larger than the Average Error in Step 10? If yes, approve the lot. If no, go to Section 5.

Section 5. Determine Moisture Shrinkage Allowance

If the average error for any thickness or width measurement is a minus value, or if the MAV is exceeded, perform a moisture test on each piece to determine if a moisture shrinkage allowance should be applied. Apply the appropriate allowance to each piece, then re-calculate the average error and re-determine compliance with the MAV. If the average error is a minus value for any length measurement, or if the MAV is exceeded for any length measurement the lot fails. No moisture shrinkage allowance is applied to length.

Piece Number	Moisture Content	Moisture Shrinkage Allowance		Piece Number	Moisture Content	Moisture Shrinkage Allowance
1.				7.		
2.				8.		
3.				9.		
4.				10.		

5.				**11.**		
6.				**12.**		
Section 6. Action Taken: ☐ **Lot Rejected** ☐ **Lot Approved**						
Comments:				**Official Name/Signature:**		
				Date:		
Random Numbers: Enter the numbers as you select them in the top row and reorder them in the bottom row.						
rev. (xx/xx)						

Background/Discussion: See Appendix A, Page L&R-A201.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

NET-8 D Section 4.XX. Plywood and Wood-Based Structural Panels

Source:
NIST OWM (2018)

Purpose:
Provide inspectors and industry with a HB133 uniform test method for Plywood and Wood-Based Structural Panels.

Item Under Consideration:
Amend NIST Handbook 133 as follows:

Section 4.XX. Structural Plywood and Wood-Based Structural Panels

4.XX. Structural Plywood and Wood-Based Structural Panels

4.XX.1. Test Equipment

- **Steel linear measure**

- **For labeled dimensions exceeding 304 mm (12 in), use a measure with 0.05 mm (1/32 in or 0.031 in) graduations.**

- **Calculator**

- **Worksheet for Plywood Sheet and Wood-Based Structural Panels**

- **Micrometer, caliper, or dial gauge 25 mm to 50 mm (1 in to 2 in) with 19.1 mm (3/4 in) anvils**

  - **A mechanism that applies constant pressure between 34 kPa (5 psi) and 69 kPa (10 psi) during the measurement.**

- **For "tongue and groove" (e.g., floor panels) and "shiplap" (e.g., exterior siding panels), a micrometer with a 152 mm (6 in) throat; 19.1 mm (3/4 in) anvils may be necessary.**

  - **A mechanism that applies constant pressure between 34 kPa (5 psi) and 69 kPa (10 psi) during the measurement.**

- **Gage blocks**

- **The latest version of U.S. Department of Commerce (DOC), Voluntary Product Standard PS 1-09, "Structural Plywood."**

- **The latest version of U.S. Department of Commerce (DOC), Voluntary Product Standard PS 2-10, "Performance Standard for Wood-Based Structural-Use-Panels."**

- **Aluminum foil and plastic bags**

- **Saw**

4.XX.2. Test Procedure

Use this procedure to verify the length, width, and thickness of structural plywood and wood-based structural panels.

1. **Follow Section 2.3.1. "Define the Inspection Lot." Use a "Category A" sampling plan in the inspection. Select a random sample.**

2. **Identify the Performance Category and actual size of each piece (e.g., 1.2 m × 2.4 m) (4 ft × 8 ft) from the latest version of Voluntary Product Standards PS 1-09, "Structural Plywood" or PS 2-10, "Performance Standard for Wood-Based Structural-Use-Panels".**

3. **Conduct a visual inspection of each piece to ensure there are no signs of water or other damage. Remove any pieces (e.g., top, sides) that have damage or have been exposed to the elements (e.g., weather, rain, moisture, sun) from the lot.**

Note: Overlapping (e.g., shipped siding) or interlocking panels (e.g., tongue and groove floor panels) shall be measured according to the exposed face. Measurements are taken on the surface that will be exposed after installation and shall not include the overlap tab.

4. **Determining Length**

- **For sheet lengths up to 3 m (10 ft), take at least two measurements along the sheet's length about one-quarter of the distance from the center line to each edge of the sheet (see Figure 4. Determining Length). Average the results to obtain the Average Length.**

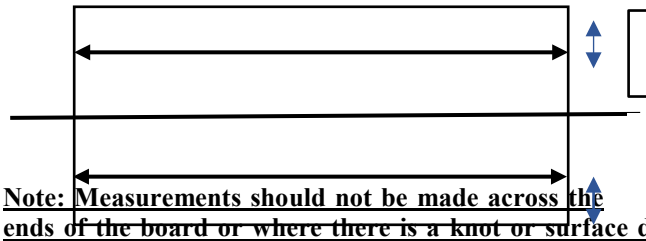


Figure 4. Determining Length.

Note: Measurements should not be made across the ends of the board or where there is a knot or surface defect that may affect the measurement. Measurements should not be taken within 150 mm (6 in) from the edges of the sheet.

5. Determining Width

- **For sheet lengths up to 3 m (10 ft), take at least two measurements across the sheet's width about one-quarter of the distance from each end of the sheet (See Figure 5. Determining Width). Average the results to obtain the Average Width.**

Note: Measurements should not be made anywhere across the sheet where there is a knot or surface defect that may affect the measurement. Measurements should not be taken within 150 mm (6 in) from the ends of the sheet.

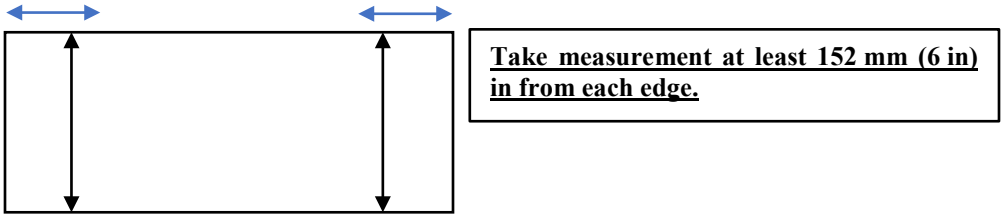


Figure 5. Determining Width.

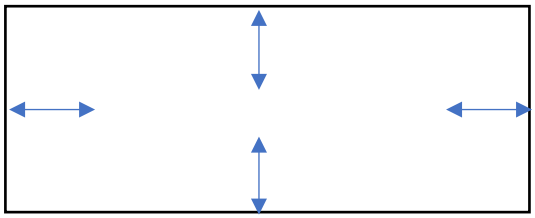
6. Determining Thickness

- **Verify the accuracy of the micrometer, caliper, or dial gauge using the gage blocks. Use the micrometer, caliper, or dial gauge 25 mm to 50 mm (1 in to 2 in); 19.1 mm (3/4 in) anvils to measure thickness and record the actual dimensions on the "Worksheet for Plywood Sheets." For "tongue and groove" (e.g., floor panels) and "shiplap" (e.g., exterior siding panels) a micrometer with a 152 mm (6 in) throat; 19.1 mm (3/4 in) anvils may be necessary.**

- **Panel thickness shall be measured with a micrometer having 19.1 mm (3/4 in) (minus 0, plus 1.3 mm [0.050 in]) diameter anvils.**

- **Measurements shall be taken at an applied anvil pressure of not less than 34 kPa (5 psi) or more than 69 kPa (10 psi) with the anvil center at 19 mm to 25 mm (3/4 in to 1 in) from the panel edge.**

- **The location of the measurements shall be representative of general panel thickness at approximate mid-length, ± 50 mm (2 in) along each edge of the panel and the average of the four measurements shall be taken as the thickness of that panel (see Figure 6. Determining Thickness). If a measurement point contains a permissible grade characteristic that affects panel thickness, then the measurement point shall be shifted from that point.**



Take measurements at least 50 mm (2 in) in from each edge.

Figure 6. Determining Thickness.

4.XX.2.1. Labeling and Other Requirements for Structural Plywood and Wood-Based Structural Panels

a. Structural Plywood Sheets

1. Shall be labeled in accordance with the latest version of Voluntary Product Standard PS 1-09 "Structural Plywood."

2. Includes grade, performance category (abbreviations: PERF CAT, CAT or Category are permitted), thickness, and mill number.

3. Panel sizes are typically 1.2 m (4 ft) × 2.4 m (8 ft), or 2.7 m (9 ft) or 3 m (10 ft) on a nominal basis.

4. Panel length and width information may be included on the panel manufacturer bundle tag.

5. Panels shall comply with the thickness tolerances for the performance category in the latest version of Voluntary Product Standard PS 1-09, "Structural Plywood." Table 10, "Plywood Thickness Requirements."

6. Panels shall bear the stamp of a qualified inspection and testing agency in accordance with the latest version of Voluntary Product Standard PS 1-09, "Structural Plywood." Section 7.1. Certification.

b. Structural Panels

1. Shall be labeled according to the latest version of Voluntary Product Standard PS 2-10 "Performance Standard for Wood-Based Structural Use Panels" for grade, span rating, performance category (abbreviations: PERF CAT, CAT or Category are permitted), thickness, and mill number.

2. Performance category, such as 23/32 PERF CAT, means the sheet shall comply with the thickness tolerances for 23/32 PERF CAT in the latest version of Voluntary Product Standard PS2-10, "Performance Standard for Wood-Based Structural-Use-Panels." Table 1 "Panel Thickness Requirements."

3. Panels shall bear the stamp of a qualified inspection and testing agency in accordance with the latest version of Voluntary Product Standard PS 2-10 "Performance Standard for Wood-Based Structural-Use-Panels.", Section 8.1. Certification.

Notes:

1) **When structural plywood sheets or structural panels are tested in retail stores, it is recommended that they be sorted by mill and then panel type (grade, thickness).**

2) **If a lot consists of mixed sheets or panels from different production runs and/or productions lots, be sure to record the codes for all sheets in the sample so the inspector and other interested parties can follow up on the information.**

3) **Record or attach a photograph of the information located on the grade stamp including the manufacturer, grade, standard (i.e., PS 1), mill number, and agency.**

4.XX.2.2. Moisture Shrinkage Allowance for Structural Plywood and Wood-Based Structural Panels

Structural Plywood and Oriental Strand Board (OSB) shrink and swell with changes in moisture content. The standardized moisture content for Structural Plywood is 9 % (PS 1-09, "Structural Plywood." Section 5.10, "Dimensional Tolerances and Squareness of Panels)". The equivalent standardized moisture content of OSB is 8 %.

1. **If the average error is a minus value, determine the moisture content on each piece using the latest version of ASTM D4442, "Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials", Method B. "Secondary Oven-Drying Method".**

   Note: The inspection lot shall be put on hold (i.e., "inspection hold," not permitted to be moved, sold, or otherwise distributed pending testing completion) while a determination is being made.

2. **Using a saw, cut a 15.24 cm × 15.24 cm (6 in × 6 in) piece from each sample at least 50 mm (2 in) from any edge.**

3. **Tightly wrap each piece in aluminum foil and place each sample in a plastic bag to preserve moisture content during transport to the laboratory.**

a. Moisture Shrinkage Allowance – Thickness for Structural Plywood and OSB

1. **For structural plywood: 0.35 % adjustment per 1 % moisture content below 9 %. (See Table X-X. Determining Moisture Shrinkage Allowance for Structural Plywood)**

2. **For OSB: 1.0 % adjustment per 1 % moisture content below 8 % (See Table X-X. Determining Moisture Shrinkage Allowance for OSB.)**

b. Moisture Shrinkage Allowance – Length and Width for Structural Plywood and OSB

1. **For Structural plywood: 0.04 % adjustment per 1 % moisture content below 9 %. (See Table X-X. Determining Moisture Shrinkage Allowance for Structural Plywood.)**

2. **For OSB: 0.04 % adjustment per 1 % moisture content below 8 % (See Table X-X. Determining Moisture Shrinkage Allowance for Structural Plywood.)**

Table X-X. Determining Moisture Shrinkage Allowance for Structural Plywood		
If the Moisture Content is:	**Allow the Following Moisture Shrinkage Allowance for Thickness:**	**Allow the Following Moisture Shrinkage Allowance for Length and Width:**
8.00 % - 8.99 %	**0.35 %**	**0.04 %**
7.00 % - 7.99 %	**0.70 %**	**0.08 %**
6.00 % - 6.99 %	**1.05 %**	**0.12 %**
5.00 % - 5.99 %	**1.40 %**	**0.16 %**
4.00 % - 4.99 %	**1.75 %**	**0.20 %**
3.00 % - 3.99 %	**2.10 %**	**0.24 %**
2.00 % - 2.99 %	**2.45 %**	**0.28 %**
1.00 %- 1.99 %	**2.80 %**	**0.32 %**
0.00 %- 0.99 %	**3.15 %**	**0.36 %**

Table X-X. Determining Moisture Shrinkage Allowance for OSB		
If the Moisture Content is:	**Allow the Following Moisture Shrinkage Allowance for Thickness:**	**Allow the Following Moisture Shrinkage Allowance for Length and Width:**
7.00 % - 7.99 %	**1.00 %**	**0.04 %**
6.00 % - 6.99 %	**2.00 %**	**0.08 %**
5.00 % - 5.99 %	**3.00 %**	**0.12 %**
4.00 % - 4.99 %	**4.00 %**	**0.16 %**
3.00 % - 3.99 %	**5.00 %**	**0.20 %**
2.00 % - 2.99 %	**6.00 %**	**0.24 %**
1.00 % - 1.99 %	**7.00 %**	**0.28 %**
0.00 % - 0.99 %	**8.00 %**	**0.32 %**

***It is recommended that the inspector notify APA – The Engineered Wood Association, if any lots fail compliance.**

APA
7011 S. 19th Street
Tacoma, WA 98466
Main Phone: (253) 620-6600
URL: www.apawood.org

4.XX.3. Evaluation of Results

3. To determine lot conformance, return to Section 2.3.7. "Evaluate for Compliance."

4. Compliance with the Average Requirement and with the MAV in Table 2-8 "MAVs for Packages Labeled by Length, Width, or Area" is based on the average of multiple measurements on each sheet in the sample.

- **Length – two measurements**
- **Width – two measurements**
- **Thickness – four measurements**

5. If the sample from the lot fails the Average Requirement, a statistical test is applied to a negative average error prior to determining if the sample passes or fails.

(Added 20XX)

Worksheet for Structural Plywood Sheets and Wood-Based Structural Panels								
Product:			**Mill Number and Agency:**					
Labeled Dimensions:			**Address:**		**City/State/Zip:**			
Length:								
Width:			**Brand/Grade/Surface:**		**Testing Location:**			
Thickness:								
Piece Number	**Average Length**	**Average Width**	**Average Thickness**		**Piece Number**	**Average Length**	**Average Width**	**Average Thickness**
1.					**7.**			
Error:					**Error:**			
2.					**8.**			
Error:					**Error:**			
3.					**9.**			
Error:					**Error:**			
4.					**10.**			
Error:					**Error:**			
5.					**11.**			
Error:					**Error:**			
6.					**12.**			
Error:					**Error:**			
Total Average:								
Average Error:								

Worksheet for Structural Plywood Sheets and Wood-Based Structural Panels

MAV for Packages Labeled by Length, Width, or Area (Table 2-8)

(Note: Structural Plywood Sheets or Wood-Based Structural Panels of a predetermined dimension is considered a "package" as defined by NIST Handbook 130, "Uniform Packaging and Labeling Regulations).

- **1 m (1 yd) or less in 3 % of labeled quantity.**
- **More than 1 m (1 yd) to 43 m (48 yd) is 1.5 % of labeled quantity.**

Section 1. Compliance with Maximum Allowable Variation

1. Calculate the MAV for labeled thickness = _____. Do any of the minus errors for thickness exceed the MAV?

a. If yes, go to Section 5.

b. If no, go to Section 2.

2. Calculate the MAV for length = _____. Do any of the minus errors for width exceed the MAV?

a. If yes, go to Section 5.

b. If no, go to Section 3.

3. Calculate the MAV for labeled width = _____. Do any of the minus errors for length exceed the MAV?

a. If yes, go to Section 5.

b. If no, go to Section 4.

Section 2. Compliance with the Average Requirement – Thickness

4. Calculate the Average Error for labeled thickness _____. The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 3. If the Average Error is a negative number, go to Step 5.

5. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 6.

(s) _____ **× (*SCF*)** _____ **= *SEL*** _____

6. Disregarding the signs, is the *SEL* in Step 5 larger than the Average Error in Step 4? If yes, the lot passes on thickness. If no, go to Section 3.

Section 3. Compliance with the Average Requirement – Length

7. Calculate the Average Error for labeled length _____. The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 4. If the Average Error is a negative number, go to Step 8.

8. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 9.

(s) _____ **× (*SCF*)** _____ **= *SEL*** _____

9. Disregarding the signs, is the *SEL* in Step 8 larger than the Average Error in Step 7? If yes, the lot passes on length. If no, go to Section 4.

Worksheet for Structural Plywood Sheets and Wood-Based Structural Panels

Section 4. Compliance with the Average Requirement – Width

10. Calculate the Average Error for labeled width _____. The sample passes this requirement if the Average Error is zero or a positive number. Go to Section 6. If the Average Error is a negative number, go to Step 11.

11. Calculate the Sample Standard Deviation (*s*) and multiply (*s*) by the Sample Correction Factor (*SCF*) for the sample size to obtain the Sample Error Limit (*SEL*). Go to Step 12.

(s) **× (*SCF*)** **= *SEL***

12. Disregarding the signs, is the *SEL* in Step 11 larger than the Average Error in Step 10? If yes, approve the lot. If no, go to Section 5.

Section 5. Determine Moisture Shrinkage Allowance

If the average error for any dimension (thickness, length, width) is a minus value, or if the MAV is exceeded for any piece, perform a moisture test on each piece to determine if a shrinkage allowance should be applied. Apply the appropriate allowance to each piece, then re-calculate the average error and re-determine compliance with the MAV.

Piece Number	Moisture Content	Moisture Shrinkage Allowance		Piece Number	Moisture Content	Moisture Shrinkage Allowance
1.				7.		
2.				8.		
3.				9.		
4.				10.		
5.				11.		
6.				12.		

Section 6. Action Taken: □ Lot Rejected □ Lot Approved

Comments:	**Official Name/Signature:**
	Date:

Random Numbers: Enter the numbers as you select them in the top row and reorder them in the bottom row.

(Rev. XX/XX)

Background/Discussion: See Appendix A, Page L&R-A203.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

NET-9 D Recognize the Use of Digital Density Meters

Source:
Missouri (2016)

Purpose:
Allow the use of digital density meters for package checking testing of viscous fluids such as motor oils, diesel exhaust fluid (DEF), and antifreeze.

Item Under Consideration:
Amend NIST Handbook 133 as follows:

Develop specific test procedures for NIST Handbook 133, "Chapter 3. Test Procedures – For Packages Labeled by Volume" that would recognize the use of digital density meters in lieu of volumetric flasks and thermometers when testing certain viscous fluids such as motor oil, DEF, antifreeze, syrups, etc.

Background/Discussion: See Appendix A, Page L&R-A205.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

OTH – OTHER ITEMS

OTH-1 D Fuels and Lubricants Subcommittee

Source:
NCWM Fuels and Lubricants Subcommittee (2007)

Purpose:
Update the Uniform Fuels and Automotive Lubricants Regulation in NIST Handbook 130 including major revisions to fuel ethanol specifications. Another task will be to update the Basic Engine and Fuels, Petroleum Products, and Lubricants Laboratory Publication.

Item Under Consideration:
This item is under development. All comments should be directed to Mr. Bill Striejewske, FALS Chair at (775) 353-3792, wstriejewske@agri.state.nv, or Ms. Lisa Warfield, NIST Technical Advisor at (301) 975-3308, lisa.warfield@nist.gov.

Background/Discussion: See Appendix A, Page L&R-A206.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

OTH-2 D Packaging and Labeling Subcommittee

Source:
NCWM Packaging and Labeling Subcommittee (2011)

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 items 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 Chairperson and eight voting members.

Item Under Consideration:
This item is under development. All comments should be directed to Mr. Chris Guay, Packaging and Labeling Subcommittee Chair at (513) 983-0530, guay.cb@pg.com or Mr. David Sefcik, NIST Technical Advisor at (301) 975-4868, david.sefcik@nist.gov.

Background/Discussion: See Appendix A, Page L&R-A207.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

Ms. Michelle Wilson, Arizona | Committee Chair
Mr. Ethan Bogren, Westchester County, New York | Member
Mr. Joel Maddux, Virginia | Member
Mr. John McGuire, New Jersey | Member
Mr. Doug Rathbun, Illinois | Member
Mr. Prentiss Searles, American Petroleum Institute | AMC Representative
Mr. Lance Robertson, Measurement Canada | Canadian Technical Advisor
Ms. Lisa Warfield, NIST OWM | Technical Advisor
Mr. David Sefcik, NIST OWM | Technical Advisor

Laws and Regulations Committee

Appendix A

Background/Discussion on Agenda Items of the Laws and Regulations (L&R) Committee

Subject Series List

Table A
Table of Contents

Table B
Glossary of Acronyms and Terms

Acronym	Term	Acronym	Term
AKI	Minimum Antiknock Index	LNG	Liquefied Natural Gas
API	American Petroleum Institute	NCWM	National Conference on Weights and Measures
ASTM	ASTM International	NEWMA	Northeastern Weights and Measures Association
CFR	Code of Federal Regulations	NIST	National Institute of Standards and Technology
CNG	Compressed Natural Gas	OWM	Office of Weights and Measures
CWMA	Central Weights and Measures Association	PALS	Packaging and Labeling Subcommittee
FALS	Fuels and Lubricants Subcommittee	S&T	Specifications and Tolerances
FDA	Food and Drug Administration	SWMA	Southern Weights and Measures
FPLA	Fair Packaging and Labeling Act	UPLR	Uniform Packaging and Labeling Regulation
FTC	Federal Trade Commission	USNWG	U.S. National Work Group
HB	Handbook	WWMA	Western Weights and Measures Association
L&R	Laws and Regulations		

Details of All Items
(In order by Reference Key)

BLOCK 1 ITEMS (B1) MULTIUNIT PACKAGE LABELING, MAV FOR MULTI-UNIT & VARIETY PACKAGES AND HANDBOOK 133, CHAPTER 5, SPECIALIZED TEST PROCEDURES

Source:
NIST OWM (2019)

B1: PAL-1	**Handbook 130 Uniform Packaging and Labeling Regulation: Section 2.8. Multiunit Package**
B1: NET-1	**Handbook 133: Section 1.2.4. Maximum Allowable Variation**
B1: NET-2	**Handbook 133: Sections 2.1. Scope, 3.1. Scope, 4.1. Scope and Section 2.3.7.1. Maximum Allowable Variation (MAV) Requirement**
B1: NET-3	**Handbook 133: Chapter 5, Specialized Test Procedures**

Background/Discussion:
When the current test procedures in NIST HB 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 places language in NIST 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 NIST HB 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.

Regional Association Comments:
WWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) provided a description of the item and noted that NIST is requesting all four items in Block 1 need to move together as a group. They hope to have the item fully developed by January for voting status in July. Mr. Kurt Floren (LA County, CA) noted concerns regarding the MAV for multi-unit packaging as proposed. He suggested that the amendment of striking the last phrase does not fully reflect 16CFR500.27. FTC regulations state that a multi-unit package with individual packages intended for individual sale should be labeled appropriately. Additionally, he noted additional clarification is needed in several areas, and although he did not have specifics, offered to assist the developer. He suggested that there may be a way to streamline and clarify the requirements without providing duplicative wording throughout the handbook.

The committee believes this item has merit to address multi-unit and variety packages and is needed to provide instruction regarding test procedures for these types of products; however, we recommend that the developer explore ways to simplify and address the concerns raised during open hearings and committee discussion. Mr. Floren has offered assistance to the developer. As such, the committee believes these items should be assigned a Developing Item.

NEWMA 2018 Interim Meeting: Mr. John McGuire (NJ) commented on Block 1, NET 2 only: questioning that the new language under both "Notes" sections was incomplete. Mr. Mike Sikula (NY) agrees there are incomplete sentences. The group agreed that NIST needs to clarify how these new requirements will impact inspectors. Mr.

Walt Remmert (PA) asked if there is a reason why this new block of items is necessary. This provision should only be applicable if the interior packages don't already have a net weight statement on them. The Committee recommends this block be designated as Developing while these issues are addressed.

SWMA 2018 Annual Meeting: The submitter explained all four proposals and the reasoning behind the submittal.

- Amend the definition for Multiunit package in the UPLR
- Under HB133 Section 1.2.4. Maximum Allowable Variation - add language regarding the declaration on multiunit and variety packages, for when the MAV may need to be recalculated
- HB133 Sections 2.1., Scope 4.1. and Section 2.3.7.1. MAV requirement. Add a note for multiunit and variety
- HB133 Add a chapter 5.1. Create a Chapter 5 within HB133 to address specialized test procedures. This also adds a specialized test procedure for multiunit and variety packages

Ms. Warfield (NIST OWM) commented that a lengthy supporting document is located on the NCWM Publication 15 web page. Mr. Guay (Proctor and Gamble) explained that manufacturers pack to the individual item and do not know how the finalized package will be prepared (multiunit). Mr. Guay would also like the test procedure to reflect several examples to assist manufacturers. There were several comments supporting the addition of a Chapter 5 which would reflect the test procedure in its entirety. Supporters believe this will assist inspectors that do not perform package checking inspections on a routine basis. Tim Chesser (AR) would like to have the title to Chapter 5 modified to accurately reflect the chapter contents.

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

CWMA 2018 Interim Meeting: Loren Minnich (KS) commented that he is concerned this item could still fail an inspection even if individual items meet their labeling requirements. Would we be holding a package to two standards? Mr. Chris Guay (Procter and Gamble) commented that generally, he supports this proposal, but isn't sure why the item is a work priority. The dilemma for a manufacturer is that they make individual products, and the assumption is it will be sold as an individual item. However, the manufacturer does not control a downstream retailer who decides to bundle individual items to be sold as a multi-pack unit. In general, he supports the proposal, but believes the issue needs close scrutiny. Doug Musick, KS asked if the manufacturer is the responsible party if there is a product in the marketplace even if it is rebundled. Mr. Guay responded that the manufacturer is, indeed contacted. Mr. Minnich restated his concern that individual items would pass inspection, but the multi-unit package would not, depending on what the MAV is for each respective package. Mr. Guay responded that he supports this item, because it is his understanding that the individual content statement preempts the bulk content statement. Based on comments heard, the committee believes the item has merit, but would like the developer to reference examples to assist both manufacturers and regulators.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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MOS – UNIFORM REGULATION FOR THE METHOD OF SALE COMMODITIES

MOS-5 Section 1. Food Products and Section 2. Non-Food Products

Background/Discussion:

Much discussion and debate has been undertaken within the NCWM over the past two years regarding proposals for methods of sale of commodities (specifically, liquefied natural gas and compressed natural gas as vehicle fuels) based upon "equivalencies" to other methods of sale for different commodities (in these recent cases, based upon calculated average energy content comparisons to gasoline or diesel fuel). With the exception of a singular commodity, compressed natural gas, for which gasoline-liter-equivalent and gasoline-gallon-equivalent methods of sale were permitted some 20 years ago, the methods of sale for all other commodities have historically and consistently been established based upon legally-recognized units of weight or measure that are traceable to national standards maintained by NIST, the sole exceptions (found in interpretations and guidelines) being specific fresh vegetable commodities permitted to be sold by "head" or "bunch." Discussions surrounding considerations of

"equivalency" units have raised the potential for untold similar proposals to establish methods of sale for countless competing products in the marketplace claiming comparisons of performance, quality, energy or nutritional content, or other factors which can be subjective, widely varying due to inconsistent chemical or biological makeup, or a host of other influences that are, or may be, based upon little to no scientific or metrologically sound and traceable determinations or calculations.

While a core tenet of weights and measures regulation and legal metrology – whether regarding design and function of weighing and measuring devices or sales of commodities - has always been widely recognized to require employment of units of measure that are recognized and published as legal for use and having metrological traceability, clear language in model laws and regulations developed by NCWM and published in NIST Handbooks is absent, likely never heretofore being deemed necessary due to the well-established, long-held tenet. This proposal serves to codify, memorialize, and specifically clarify that tenet as a formal adoption in the Uniform Regulation for the Method of Sale of Commodities to ensure against potentially misleading, confusing, or unclear business practices in commerce, whether in sales from bulk or in labeling of packaged commodities, that may be based upon observations, calculations, assumptions, or other considerations that may be subjective and not metrologically traceable.

At the 2016 NCWM Interim Meeting, Mr. Kurt Floren (LA County, CA) remarked that this would codify a long-standing practice. This item not intended to interfere with the current debate on liquefied natural gas (LNG). Mr. Floren encouraged the item on LNG to have a vote prior to this item. If the LNG proposal is adopted, this item could be amended from the floor of the conference. A former regulator remarked that Uniform Weights and Measures Law, Section (n) allows the term or unit of weight or measure be used if it is determined that an existing or firmly established practice. This proposal conflicts with NIST Handbook 130, Weights and Measures Law Section 12(n) that states this is a state function, not NIST controlled. The term on "traceability" is in NIST Handbook 130, Uniform Weights and Measures Law. NIST remarked that when changes are made to NIST SP 811, "The NIST Guide for use of International System of Units" or NIST SP 330, "The International System of Units (SI)" it is required that a Federal Register notice be done.

The Committee is unclear as to what issue this proposal resolves. The Committee would also like to know what impact this would have for all items covered under the current Method of Sale of Commodities Regulation. The Committee agreed to move this forward as a Developing Item to allow the submitter to develop additional data and to have the Regions submit feedback. At the 2016 NCWM Annual Meeting there were no updates for the Committee.

At the 2017 NCWM Interim Meeting, Mr. Floren commented this item was delayed pending the outcome of a former L&R agenda item pertaining to compressed natural gas. The Committee agreed unanimously that this is ready as a Voting item.

At the 2017 NCWM Annual Meeting, Mr. Floren submitted modified language to the Committee for consideration. This modified language due to the adoption of NIST Handbook 130, Method of Sale Regulation, Section 2.27.1. Definitions and a minor modification to Section 1. Food Products (b) to state that it is at the discretion of the State Director. There were several voices that supported this item or concept. A retired New York regulator expressed his objection to this item in its entirety. He believes the Uniform Regulation is specific for the items having a uniform method of sale. He also stated NCWM's authority does not extend to impact all products and commodities. This item was returned to Committee for future consideration.

At the 2018 NCWM Interim Meeting, Mr. Floren submitted modified language to address some concerns heard at the fall regional meetings. Many comments heard regarding this proposal were both in support and opposition. The Committee feels that the comments received were philosophical in nature. The L&R Committee believes this item is fully developed and recommends it as a Voting status.

At the 2018 NCWM Annual Meeting, the Committee reviewed a letter of opposition from Mr. Ross Andersen (NY, retired). Mr. Andersen believes there is no compelling need or justification for this language to be placed into NIST Handbook 130. Mr. Andersen believes that NCWM has no authority to adopt such language. The NIST Technical Advisor clarified that NIST roles and responsibilities are not addressed in the "Organic Act" as stipulated in Mr.

Andersen's letter. They also clarified when this initial proposal was being developed the submitter had worked with senior managers within at NIST OWM.

Regional Association Comments:

WWMA 2018 Annual Meeting: The committee recognizes that there were some amendments to this language at the 2018 Annual NCWM Meeting (printed on the addendum, but not in Publication 16). Mr. Steven Harrington (OR) commented that he supports this item. Ms. Lisa Warfield (NIST OWM) stated that Mr. Floren, (LA County, CA) worked closely with NIST regarding this language and NIST finds no conflict with authority or jurisdiction. Mr. Floren indicates that there are no additional updates required for this item to address concerns raised at the 2018 Annual NCWM Meeting. The committee believes that disagreements regarding this proposal are philosophical in nature and will not be resolved with additional language changes. Furthermore, the committee believes that some jurisdictions may not have had time to fully vet the changes on the 2018 Annual NCWM addendum and recommends this item should be assigned as a Voting Item.

NEWMA 2018 Interim Meeting: Mr. Ethan Bogren (Westchester County, NY) commented that this item has been through the conference in several different forms. There are philosophical disagreements and he doesn't believe it will change. He believes this item should be withdrawn. Mr. Mike Sikula (NY) opposes this item. Chairman Lou Sakin (MA) commented that Handbook 130 is a model legislation document, not statute. States use these model documents for different purposes. Mr. Walt Remmert (PA) commented that the handbook makes recommendations on specific items, but this is a general provision, and is unnecessary. The Committee recommends this item be withdrawn since it did not garner sufficient support and has not changed significantly.

SWMA 2018 Annual Meeting: The membership heard no comments on this item. The Committee believes that this item is fully developed and recommends this as a Voting item and let membership decide.

CWMA 2018 Interim Meeting: Chris Guay (Procter and Gamble) commented that this item has been put before the conference, and has not passed twice. He believes that at some point, the committee should consider withdrawing it. Mr. Guay has concerns that this item sets up the weights and measures community for challenges from the marketplace in the future. The committee believes this item is fully developed and ready for voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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MOS-7 2.4. Fireplace and Stove Wood.

Background/Discussion:

RMS is a major producer for bundled firewood that is provided to major corporations throughout the U.S. Until recently they were unaware that NCWM adopted changes to the standard of measurement for bundled firewood in 2016. They continue to show the bundles as .75 cu. ft. and (21L). Their primary concern is the large supply of bundles currently available in retail stores. They are seeking a one-year extension for the effective date of the labeling change for firewood bundles from cu. ft. to Liters. They do believe that all their facilities will comply to this new labeling requirement immediately, however they are greatly concerned with any repercussions that could occur from old product within store inventories.

Justification for this extension lays solely on the unbearable financial strain this would put on RMS and all the customers that they supply. The extreme cost of returning product that has not sold through by the requirement deadline could bankrupt many of the RMS firewood suppliers. This will also put unnecessary financial burden on all of RMS's customers such as Lowes Home Improvement, Tractor Supply, Kroger, Food Lion, Ahold USA, Harris Teeter and many more. RMS was not informed of this change until August 1, 2018. They have purchased millions of labels already for 2018 and started manufacturing and shipping this product months ago. As stated earlier RMS will comply to this new requirement as soon as possible.

Regional Association Comments:
WWMA 2018 Annual Meeting: The committee received no comments on this item and believes this to be a reasonable request. The committee recommends this as a Voting Item.

NEWMA 2018 Interim Meeting: John McGuire, NJ, questioned if a two-year delay for implementation is necessary. No other comments being heard, the Committee believes this vote is fully developed and ready for voting status.

SWMA 2018 Annual Meeting: Ms. Warfield (NIST OWM) has spoken with the submitter regarding this proposal. The issue for this manufacturer is they have considerable product in the marketplace that does not meet the newer labeling regulations. The manufacturer had contacted the states in which they have product and he was informed he could be cited for labeling violations. The Committee concurs with extending the enforcement date on this item and recommends this as a Voting.

CWMA 2018 Interim Meeting: No comments were heard. The committee believes this item is fully developed and ready for voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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MOS-8 D 2.XX. Non-Utility Transactions of Electrical Energy (Other than Vehicle Fueling Applications)

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

Ms. Lisa Warfield
Chairman, USNWG Subgroup on Watthour Type Electric (WHE) Meters
(301) 975-3308, lisa.warfield@nist.gov

or

Ms. Tina Butcher
Chairman, USNWG Electric Vehicle Fueling and Submetering
Technical Advisor, Subgroup on Watthour Type Electric (WHE) Meters
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Background/Discussion:
The creation of Developing Items on both the L&R and S&T Committee agendas will provide for a venue to allow the USNWG to update the weights and measures community on continued work to develop test procedures and test equipment standards. This item will provide a forum for reporting on work to develop proposed method of sale requirements for electric watthour meters and a tentative device code for electric watthour meters in residential and business locations and serve as a placeholder for eventual submission of these proposals for consideration by NCWM.

The U.S. National Work Group (USNWG) on Electric Watt Hour Meters (WHE) Meters met (and by tele/web conference) on September 12-14, 2017 in Sacramento, California to discuss the full development of a November 2014 version of a watthour meter draft code, intended to address legal metrology requirements for the device its minimum inspection and test procedures and test equipment, the appropriate method of sale of electricity through the device and an efficient process for achieving these goals.

At the 2018 NCWM Annual Meeting, Ms. Tina Butcher provided an update that the USNWG, Electric Watthour Meter Subgroup has held several in-person meetings since the 2017 NCWM Annual Meeting, including meetings in September 2017, November 2017, and May 2018. All meetings included web-conferencing to allow those not able to attend in person to participate. The Subgroup will meet for a short web-conference on August 29, 2018 and is planning its next in-person meeting for February 2019 in Sacramento, CA.

The Subgroup has submitted an item under consideration to NIST Handbook 130's Uniform Regulation for the Method of Sale of Commodities to specify a method of sale for electrical energy sold through these systems and recently finalized a Subgroup ballot on language to be presented for consideration by the Regional W&M Associations and the 2019 NCWM cycle. The Subgroup looks forward to comments on the proposed language as it moves through the process. Although, the Subgroup understands there may be a need to make some technical and editorial changes as these comments are received, the Subgroup expects the proposal will be ready for vote by the NCWM at the 2019 Annual Meeting.

The USNWG will provide regular updates on the progress of this work and welcomes input from the community.

Regional Association Comments:
WWMA 2018 Annual Meeting: Lisa Warfield, NIST OWM commented that the workgroup has put forth much effort regarding this proposal and this history appears in Appendix A; she also summarized upcoming efforts of the workgroup. The workgroup believes this proposal is fully developed and ready for vote. Several California Weights and Measures officials support this item as a voting item. Mahesh Albuquerque, NM voiced support for this item and noted that public utility exemption may need to be revisited in the future. The committee believes this item is fully developed and should be assigned as a Voting Item.

NEWMA 2018 Interim Meeting: No comments were heard on this item, and the Committee determined it should move forward as a voting item as it fully developed.

SWMA 2018 Annual Meeting: Lisa Warfield (NIST OWM) remarked that in June 2018, the U.S. National Workgroup submitted finalized language for the method of sale language to the L&R National Committee. This language currently appears in the L&R Agenda. The Committee believes this item to be fully developed and ready for a Vote.

CWMA 2018 Interim Meeting: No comments were heard, and the committee lacked knowledge of this particular subject, so does not feel it should make a recommendation.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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ODR – UNIFORM OPEN DATING REGULATION

ODR-1 **Section 1. Purpose, Scope and Application, Prohibited and Acceptable Terms, Section 2. Definitions, Section 3. Sale of Perishable Food and Date Determination, Section 4. Sale of Semi Perishable and Long Shelf Life Food with "BEST If Used By" Opening Date., Section 5. Placement of the "USE By" or "BEST If Used by Date, Section 6. Factors for the Date Determination of "USE By" or BEST If Used By" Dates, Section 7. Records., Section 8. Exemptions, Section 9. Preemption of Local, County, and Municipal Ordinance and Section 10. Effective Date**

Background/Discussion:
This proposal is to revise the Uniform Open Dating Regulation to replace the term "Sell By" with "Use By" and to provide requirements for standardize date formats. This will improve the accuracy and usability of open dating information and result in a financial savings for consumers and industry alike.

Currently, the States of Arkansas, Connecticut, Nevada, Oklahoma, and West Virginia automatically adopt the ODR, so adoption of the proposed changes will impact the enforcement programs in these States.

This proposal is to revise the Uniform Open Dating Regulation (ODR) to eliminate the requirement for the "Sell By" date because research has revealed that use of this term has led to consumer confusion and contributes to food

waste. The proposed revisions replace "Sell By" with "Use By" which provides consumers with clearer guidance to avoid spoilage or loss of value for perishable or semi perishables foods. Revised requirements are also included to standardize date formats. The proposed revisions will eliminate legal and technical barriers to recent efforts by the Grocery Manufacturers of America (GMA) and the Food Marketing Institute (FMI) to align the dating methods used by manufacturers and retailers to reduce consumer confusion (refer to supporting document attachment 1). The proposed revisions will require manufacturers to utilize only one open dating code on a package to reduce the possibility for conflict by requiring stock control dating (e.g., sell by date, pull date) to be provided in a "closed dating" system readable only by stock control personnel of manufacturers, distributers or retailers and similar parties. Provisions describing requirements for the sell or disposal of expired products are also included. The intent of the revised regulation is to provide flexibility in the prescriptive wording of the regulation by allowing variations from the prescribed text if the terms "USE By" or "BEST if Used By" are used in conjunction with the prescribed words. This allows manufacturers to add wording that clarifies or increases the usability of the open date information on package so it is not rejected by an official simply because it is not identical to that in the regulation (e.g., "This Product Will Taste BEST if Used By the Date on the Bottom of the Package" or "BEST when Used By.")

Approach to Adoption

The OWM sought the advice of both GMA and FMI and they recommended (refer to supporting document – Attachment 5) that enforcement of the revised ODR requirements be delayed for three-years from the date of adoption and that an additional 1-year exemption be incorporated for packages in distribution or in inventory on the enforcement date of the revised requirements which may not comply with the revised requirements. The OWM believes this enforcement delay is reasonable based on the information that industry provided. In addition, much of the open labeling currently being used by most packers do not meet the proposed open dating requirements. Implementing the revised open dating requirements and uniform date formats will be costly and require time for equipment procurement, label revisions and other changes to be implementation, such as the revised requirement for closed dating for inventory control uses.

The information regarding the current state of open date labeling was confirmed by a local marketplace survey OWM recently carried out which revealed that many packages have open dating information which does not comply with the requirements in the current ODR. OWM believes the following approach will improve the accuracy and usability of open dating information and that it is the least costly way to implement the proposed requirements which will certainly result in money savings for consumers and industry alike.

OWM is recommending the following approach to adoption of the proposed ODR for consideration by the NCWM Laws and Regulations Committee (the Committee).

Repeal the current ODR and adopt the proposed ODR requirements with an effective date for enforcement of January 1, 2024.

This should include a provision indicating that the requirements may be used by industry for purposes of voluntarily complying with the "item under consideration" ODR effective immediately upon adoption by the NCWM. This approach would place a clear standard for open date labeling in NIST Handbook 130 and this would encourage and permit industry to voluntarily comply with the requirements. This would allow packers to offer or expose for sale or sell packages in retail sales with the assurance that they will meet upcoming requirements that will be enforceable in 2024. This approach should allow adequate time for all affected packers to implement the revised open date labeling requirements and implement consistent date formats. This will make it easier for consumers to understand date information and allow packages in distribution or storage with open date labeling which does not meet the new requirements to move through the marketplace. Even though this approach suspends enforcement action under the ODR until 2024 it will allow packers to make the transition as part of their routine business and avoid situations where enforcement actions may be taken to enforce obsolete and inefficient open dating requirements.

By not setting an enforcement deadline of January 1, 2023 and having a separate one-year exemption for packages in the distribution system or in inventory this approach avoids situations where officials or retailers would need to determine if packages found in retail stores with potentially non-compliant labeling were in distribution or in storage on the 2023 effective date or not.

The OWM believes this approach will jump-start the conversion over to the new open dating requirements in the least disruptive way. The OWM believes that in the interim period consumers would be better served through information and educational efforts about how to use and understand open date labeling in the media and through other venues. NCWM adoption of this unique approach should not prevent the NCWM and States from working with industry trade groups to educate packers and consumers about the new requirements and the benefits of and how to use the new open dating regulations. There are many reasons to justify the NCWM taking this approach:

1. Studies which show that the current open dating regulation requirements are obsolete and that they confuse consumers and result food waste and not continue to endorse the current ODR that includes legal requirements that continue to follow misguided practices. (refer to supporting documents)
2. To prevent enforcement of requirements that are obsolete and which may cause consumer confusion and food waste the NCWM should encourage the states which automatically adopt the ODR to suspend enforcement of the current open dating regulation. Instead, all states should focus outreach efforts on educating consumers and industry about the benefits of the proposed "new' open dating regulation and requirements.
3. This approach is the simplest and least costly way to bring about these much-needed revisions to the open dating requirements in the ODR which can serve as a model for revising open dating requirements that some states have in other product regulations
4. Since in early 2017 many manufacturers have joined an industry wide effort to switch over to use of the proposed requirements in their open date labeling as part of an industry wide move to the new standard. It is in the best interest of consumers and industry alike to encourage the rapid transition. While industry has set a voluntary 2020 deadline for use of the new open dating the attached proposal includes requirements on closed dating for inventory and stock control purposes and uniform date formats which are not covered in the industry program so the delayed enforcement date is necessary and justified.
5. Recognizing that setting any label conversion deadline may result in packages in the distribution system or those stored in warehouses to be in violation of the "new" ODR its effective date includes one additional year beyond the three-year implementation delay requested by GMA and FMI. This 4-year enforcement delay provides a hard deadline that serves two purposes: (1) allows industry to sell thru packages that were in the distribution system or warehouse inventories which may not be in compliance with the new ODR requirements and, (2) avoids expending enforcement resources that may be devoted in trying to determine if packages are exempt from the requirements of the "new" ODR or not.

The Uniform Open Dating Regulation (UODR) (which has not been updated in more than 32 years) should be revised because some of its requirements and terms it mandates have been shown to contribute to consumer confusion over food dates and has more than likely contributed to food waste since it was adopted. Refer to the following supporting documents which were provided to the committee and posted on the NCWM website:

- Attachment 1: FMI & - GMA "Grocery Industry Launches New Initiative to Reduce Consumer Confusion on Product Date Labels"
- Attachment 2: "Open Date Labeling Revisions for Food Appear To Be on the Horizon," September 27th, 2017, Contributor: Michael J. O'Flaherty.

According to a February 15, 2017, press release from GMA/FMI "about 44% for food waste sent to landfills comes from consumers, and statistics show that addressing consumer confusion around product date labeling could reduce total national food wasted by 8 %." The most notable justifications for bringing about a much needed change in open date labeling and identifying the need for the NCWM to update and promote widespread adoption of an up-date and more effective UODR was published in a 2013 definitive study from the Natural Resources Defense Council and Harvard University case for revising the UODR is well stated in "The Dating Game – How Confusing Food Date Labels Lead to Food Waste in America" Harvard & Natural Resource Defense Council, September 2013 (refer to supporting document- Attachment 3 which was provided to the committee and posted to the NCWM website). This provides detailed descriptions of the many different defects in the current regulation and suggestions for dealing with some of the factors that contribute to consumer confusion.

In addition, the following supporting documents have been provided to the committee and are posted to the NCWM website.

- Attachment 4: Standardizing food date labeling has become an international priority "Champions 12.3 "Call to Action to Standardize Food Date Labels Worldwide by 2020" September 2017.
- Attachment 5: "Food Marketing Institute Letter Supporting Proposed Changes to Uniform Open Dating Regulation."

Some packagers may oppose the requirement for the format of the date or the provisions for using a closed dating system for stock rotation.

Regional Association Comments:

WWMA 2018 Annual Meeting: Lisa Warfield, NIST OWM commented that this regulation is adopted by 5 states. The FMI and GMA voluntary guidance has been updated. This proposal will harmonize the handbook with their updated guidance. The committee does not believe that this falls under the jurisdiction of weights and measures. The committee has offered a new proposal (ODR-NEW) proposing to remove regulation E, Uniform Open Dating Regulation from Handbook 130 in its entirety. However, if the entire regulation is not removed from the handbook, the committee believes the discrepancies between existing language and federal language need to be resolved. In the event this proposal is not withdrawn, the committee recommends the following changes, which are supported by the submitter.

From voting session:
Cadence Matiejevich, NV commented that she will vote to support committees recommendation for both ODR 1 and New ODR, but wants to reserve the right for further research to determine a later position

2.~~3~~7. Semi Perishable Food – Any food for which a significant risk of spoilage, loss of value, or loss of palatability ~~occurs only after a minimum of~~ occurs only after a minimum of ~~within~~ 60 days, but within 6 months, after~~, but within 6 months, after of~~ the date of packaging.

2.~~6~~8. "USE By" Date ~~"Best If Used By" Date~~ – A date that informs the consumer that the product should be consumed by the date displayed on the label and after the expiration of that date, the food should not be used or consumed and should be properly disposed of. ~~prior to deterioration of qualities described in 2.3. Semi Perishable Food and 2.4. Long Shelf Life Food.~~

Section 3.2 is missing a "d" in the word "describing"

3.3.2. Responsibility for "USE By" Date. – A retailer who purchases packaged perishable food may upon written agreement with the person who packages such food determine, identify, and be responsible for the "USE By" date placed on or attached to each package of such food.

NEWMA 2018 Interim Meeting: John McGuire, NJ, commented that he is not opposed to move the item forward, but his bureau does not do open dating. The Chair asked how many states at NEWMA check for dating. Frank Greene, CT, commented that his state adopts the voluntary version. He commented that dating items can encourage unnecessary waste. A retired regulator from Maine asked how many states have an open dating law? He commented that Maine does not have an open dating law, but baby food and formula have to be taken off sale as regulated by FDA. He believes that it would be difficult to enforce. Mr. Green commented it is not bad to keep for guidance and recommends it be placed as a developing item and should be fleshed out more as a guidance document. Product open date labeling guidance is well meaning, but enforcement is unlikely. He suggests it be made a guidance document. He suggested that we make it an assigned item and request that it be reviewed and considered by the Packaging and Labeling Subcommittee (PALS) through the national Laws and Regulations Committee. Ethan Bogren, Westchester Co., NY commented that he does not believe it falls under the purview of PALS. The Committee ultimately recommended it be withdrawn from consideration.

SWMA 2018 Annual Meeting: Tim Chesser, AK and Tory Brewer, WV are two states that currently adopt this regulation. They both remarked that their food services department handles this matter and they would like to have this item withdrawn. In addition, they would like to see the regulation removed in its entirety from NIST Handbook 130.

CWMA 2018 Interim Meeting: Loren Minnich, KS commented that he supports this item as a way to establish consistent guidelines for best use dates. Chris Guay, Procter and Gamble, commented that this proposal is an effort by NIST to try to harmonize the Handbook with GMA (Grocers Manufacturers Association) guidelines. He commented that the Western and the Southern regions are proposing a solution where a single standard will be adopted across the county, but no law will require regulatory enforcement. Julie Quinn, MN commented that weights and measures in Minnesota is not housed in the Department of Agriculture, so it does not check or enforce "best use" dates. Mr. Minnich commented that he believes it is a food safety issue, and not a weights and measures issue. Doug Rathbun, IL commented he believes it is outside the realm of weights and measures enforcement. Ken Tichota, NE commented that he believes open dating and best use dates falls outside of weights and measures. The committee believes that there is enough concern that the submitter should gather information from the states to determine if this item or the entirety of Section E should be included in Handbook 130. Consequently, the committee is recommending that the 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.net/meetings/interim/publication-15 to review these documents.

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BLOCK 5 ITEMS (B5) REMOVE OPEN DATING REGULATION FROM NIST HANDBOOK 130

B5: WAM-1 **Section 9. Requirements for Open Dating and Section 12. Powers and Duties of the Director.**
B5: ODR-2 **Uniform Open Dating Regulation**

Background/Discussion:

Regional Association Comments:
WWMA 2018 Annual Meeting: The committee does not believe that open dating regulations fall under the jurisdiction of weights and measures because it is a food safety and/or product quality issue. Nevada is the only state in the western region that currently adopts this regulation. There are four other states in other regions that adopt this regulation. This new item is related to ODR-1. In the event ODR-1 moves forward, this item should be withdrawn. The committee believes this should be recommended as a Voting Item to remove this from Handbook 130.

Cadence Matiejevich (NV), commented that she will vote to support committee's recommendation for both ODR 1 and ODR-2, but wants to reserve the right for further research to determine a later position

SWMA 2018 Annual Meeting: After reviewing Item ODR-1 the Committee is recommending that the regulation be removed from the handbook since the states that do adopt this regulation are not doing enforcement. Its purview falls within the Food & Safety Divisions within the states. The SWMA also noted that, if the Open Dating Regulation is removed, reference to open dating enforcement should be removed from the Uniform Weights and Measures Law in NIST Handbook 130.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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BLOCK 2 ITEMS (B2) KEROSENE, LPG, AND FUELS, LUBRICANTS AND AUTOMOTIVE PRODUCTS, CNG, LNG AND DEF

B2: MOS-1 A Uniform Regulation for the Method of Sale of Commodities, Background and Sections Related to Kerosene, LPG, and Fuels, Lubricants and Automotive Products, CNG, LNG and DEF

B2: FLR-1 A Uniform Fuels and Automotive Lubricants Regulation, Background and various sections related to fuels.

For more information or to provide comment, please contact:

Mr. Bill Striejewske, Chairman of the Fuels and Lubricants Subcommittee
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Background/Discussion:

The items in this block were assigned to the Fuels and Lubricants Subcommittee. After considering the comments received on the original items in the past year and documents posted related to the items (found on the NCWM Pub 16 archive website www.ncwm.net/meetings/annual/archive#2018) the focus group significantly modified the proposals. The focus group presented the new proposals to FALS.

For the 2019 NCWM Publication 15, FALS agreed to replace the MOS items previously in Block 2 with the new item shown below identified as MOS-1 and to replace the FLR items previously in Block 2 with the new item shown below identified as FLR-1.

The Method of Sale of Commodities and the Uniform Fuels and Automotive Lubricants Regulations have different information for the method of sale for kerosene, liquefied petroleum gas, natural gas fuels, and diesel exhaust fluid. This proposal is to integrate the information from both regulations to create identical method of sale language in the two regulations.

Information for the method of sale for fuels, lubricants and automotive products currently can appear in the handbook in either the Uniform Regulation for the Method of Sale of Commodities and the Uniform Fuels and Automotive Lubricants Regulation. Sometimes the information for the same product is different in the two regulations which creates an added burden when maintaining and updating the handbook. This proposal is to consolidate and reorganize that information into the Uniform regulation for the Method of Sale of Commodities. This proposal is not intended to modify a specific method of sale. Those modifications should be considered separately by product.

At the 2018 Interim Meeting, Mr. Chuck Corr (ADM) spoke on behalf of a work group under FALS and provided an overview of the Block 2 agenda items. Mr. Corr stated the intent of this item is to reorganize and harmonize language only, and not to make any substantial changes to the language. Mr. Bill Striejewske, Chairman FALS, commented that FALS discussed these agenda items during their meeting and had concerns about possible conflicts between this item and the HB 130 working group (Item FLR-9). Mr. Tim Elliott (WA) commented that all state officials review the proposed language for possible conflicts with state regulations. Mr. Mike Sikula (New York) commented that there is inconsistency between FTC language (16 CFR 306) and this proposed language related to past editions of the NIST Handbook 130. Mr. Sikula stated that NIST Handbook 130 suggests the most current version, and FTC references a specific version. Mr. Sikula believes this inconsistency should be resolved prior to adoption. For these reasons, the L&R Committee decided to Assign this block of items to FALS for further work.

At the 2018 NCWM Annual Meeting Mr. Striejewske (FALS Chair) updated the Committee that this item has undergone a major overhaul within the last six months. The submitter is currently contacting each state to see how it impacts the states. It was also noted that if L&R Item FLR-9 was adopted, sections of this item would need to be updated to show the reflect the most recent language as it moves forward.

Regional Association Comments:

WWMA 2018 Annual Meeting: Tim (WA) presented updated information on this item that is currently assigned to FALS. Mr. Elliott commented that the language contained on the agenda for the Western Region will have significant revisions due to feedback heard at the annual meeting and the language contained in the agenda is no longer relevant. FALS expects the updated proposal language prior to the NCWM Interim Meeting. The Western Region recommends this item remain assigned to FALS.

NEWMA 2018 Interim Meeting: Chuck Corr (ADM) made a presentation on these items. He commented that the purpose of these items is to reorganize but not change any meanings in Handbook 130. The language is being amended and will be provided for all regions to review. Mr. Corr commented that conferees should disregard the language in the NEWMA L&R Agenda. New language will be proposed in Publication 15 for the 2019 Interim Meeting. Mike Sikula (NY) had a question that if the words "or sold" which are in the existing handbook language regarding kerosene, are inconsistent with the language of other items. The words "or sold" should be replaced with "exposed for sale". Mr. Corr suggested that this would be a substantive change and might change the intent of the proposal simply for reorganization. The Chairman commented that the testimony of Mr. Sikula be directed to Mr. Corr for further consideration. Walt Remmert (PA) supports Mr. Sikula's suggestion that the words "or sold" should be removed. Jimmy Cassidy (Cambridge, MA) suggested that this comment should be brought to FALS and ask if they are willing to make the changes during this cycle. Jim McInerny (CT) asked how this would affect states that don't adopt the Engine Fuels section. He has concerns with labeling requirement that states "conforms with ASTM standards" due to the fact that some jurisdictions may not adhere to ASTM standards. After considerable discussion the Committee designated this block with Assigned status for further consideration by FALS.

SWMA 2018 Annual Meeting: Chuck Corr (ADM) provided a presentation with an overview of the latest changes to the item under consideration. The Committee encourages the work of the focus group to get this fully developed and would like to have this reviewed at FALS.

CWMA 2018 Interim Meeting: Chuck Corr (ADM) commented there is new language that supersedes the current language in the agenda. He then gave a presentation about the purpose of the proposal. The new language does not change the intent. Ron Hayes (MO) commented that the regulation of fuel quality was incorporated into the method of sale in 1984. He does not believe it is inappropriate to have fuel quality items in the method of sale, but he does support the proposal to harmonize the sections of Handbook 130, and to remove unnecessary redundancies. The committee supports further development of this item through the Fuels and Lubricants Subcommittee, and therefore recommends Assigned status for this item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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BLOCK 3 ITEMS (B3) ENGINE FUELS AND AUTOMOTIVE LUBRICANTS INSPECTION LAW, SECTION 8.6. METHOD OF SALE, SECTION 2.33 OIL. FUELS AND AUTOMOTIVE REGS. SECTIONS 2.12 ENGINE (MOTOR OIL), 3.13 OIL, AND 7.2. TEST METHODS AND REPRODUCIBILITY LIMITS

B3: FLL-1 A Section 8. Prohibited Acts
B3: MOS-4 A Section 2.33. Oil
B3: FLR-5 A Sections 1.43. Motor Oil, 1.44. Racing Oil, 3.13. Oil and 7.2. Reproducibility Limits.

For more information or to provide comment, please contact:

Mr. Bill Striejewske, Chairman of the Fuels and Lubricants Subcommittee
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Background/Discussion:
Consumers are being misled and are not being adequately informed under existing Handbook 130 provisions about the performance of "obsolete" oils in the engines of their vehicles. Many of these obsolete oils can damage modern engines. The submitter recognizes that there may be as many as 14 million vehicles that can use pre-1988 motor oils.

At the 2018 NCWM Interim Meeting, Mr. Bill Striejewske (FALS Chairman), indicated that FALS is recommending this as a Voting item. In addition, support was heard from ILMA, API, and several regulators recommending this item as a Voting item. However, many commenters stated that editorial and minor changes were still needed for the item to be fully developed. Tim Elliot (Washington) recommended that this item have streamlined language to use a generic warning statement. Suggestions were also provided on the ultimate placement of the label. Due to lack of consensus, potentially non-editorial changes, and lack of specific details on proposed changes, the L&R Committee recommends this item be "Assigned" to FALS for further development to address the issues mentioned in this write-up.

At the 2018 NCWM Annual, Mr. Striejewske remarked that FALS received modified language from the submitter and FALS is recommending this item remain Assigned with the updated.

Regional Association Comments:
WWMA 2018 Annual Meeting: The committee received several comments expressing concerns regarding this proposal. The committee believes these are valid concerns that should be reviewed and addressed by the submitter. The committee believes these issues are best addressed by the submitter and is recommending this as a Developing Item.

- Mahesh Albuquerque expressed concerns about the lack of complaints in the market, which generally drives updates to the handbook. He also indicated the proposed modifications related to "performance claims" and cautionary requirements that are difficult to defend in court. He also stated section 2.12 references active performance categories, which is not clearly defined. Lastly, he questioned the how a regulator would know what would be considered a modern diesel/gasoline engine.
- Kevin Ferrick stated that API is supportive of the language, with the exception of one typo (an unnecessary semi-colon in 2.33.1.5).
- Kurt Floren agreed with the comments expressed by Mr. Albuquerque. Additionally, Mr. Floren requested clarification on FLL1 8.6 regarding the strikeout of the word "specified."
- Mr. Elliott also agreed with Mr. Albuquerque and Mr. Floren. He also expressed that cautionary statements should be more generic and less specific to accommodate future circumstances and they should also be easy for the consumer to understand. He also stated that the language stating "SAE believes" shown in the cautionary statements is not appropriate and should be rephrased. The committee recommends language such as "In accordance with SAE J183, this product does not meet ….."
- Additionally, Mr. Floren recommended, and the committee agrees, with changes to the language in FLR 5, Section 2.12 as shown below with double underline and double strikethrough:

2.12. Engine (Motor) Oil. – Shall not be sold or distributed for use unless the product conforms to the following specifications:

(a) performance claims <u>made ~~against~~ regarding active performance categories, as</u> listed on the label shall be evaluated against the latest version of SAE J183, "Engine Oil Performance and Engine Service Classification," API 1509 "Engine Oil Licensing and Certification System," European Automobile Manufacturers' Association (ACEA), "European Oil Sequences," or other "Vehicle or Engine Manufacturer Standards" as applicable;

<u>(b) performance claims made ~~against~~ regarding any obsolete performance categories, as listed on the label, shall be determined to meet the requirements of Section 3.13.1.3.2. "Inactive or Obsolete Service Categories" by displaying the appropriate cautionary labeling and</u>

(<u>c</u>) the product shall meet its labeled viscosity grade specification as specified in the latest version of SAE J300, "Engine Oil Viscosity Classification."

NEWMA 2018 Interim Meeting: John McGuire (NJ) commented he needs clarification on FLL-1. Section 8.6 in that it does not read correctly and should be reworded. Mike Sikula (NY) does not support this language, and recommends it goes back to the submitter for further development. Chuck Corr (ADM) asks if MOS 4 should be put into this section of the Handbook. Mr. McGuire recommended the following changes:

> **2.33.1.4. Tank Trucks or Rail Cars.** Tank trucks, rail cars, and other types of delivery trucks that are used to deliver bulk vehicle engine (motor) oil are not required to display the SAE viscosity grade and service category or categories on such tank trucks, rail cars, and other types of delivery trucks**. In lieu of such display ~~requirements~~, the documentation requirements ~~defined in~~ must be adhered to in section 2.33.1.5 ~~shall be readily available for inspection~~.**
>
> (Amended 2013 **~~and~~** 2014 **and 20XX**)
>
> **2.33.1.5. Documentation. –**When the engine (motor) oil is sold in bulk, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery. This document must identify the quantity of bulk engine (motor) oil delivered as defined in Sections 2.33.1.1. Viscosity**; grade as defined by the latest version of SAE J300 "Engine Oil Viscosity Classification,"** 2.33.1.2. Brand, 2.33.1.3. Engine Service Category; the name and address of the seller and buyer; and, the date and time of the sale. For inactive or obsolete service categories, the documentation shall also **~~bear a~~ have** plainly visible cautionary statement**s** as required in Section 2.33.1.3.2. Inactive or Obsolete Service Categories. Documentation must be retained at the retail establishment for a period of not less than one year and shall be readily available for inspection.
>
> And in 3.13.1.4.
>
> **3.13.1.4. Tank Trucks or Rail Cars. -** Tank trucks, rail cars, and types of delivery trucks that are used to deliver bulk vehicle engine (motor) oil are not required to display the SAE viscosity grade and service category or categories on such tank trucks, rail cars, and other types of delivery trucks. **In lieu of such display ~~requirements~~, the documentation requirements ~~defined in~~ must be adhered to in section 2.33.1.5 ~~shall be readily available for inspection~~.**
>
> (Added 2012) (Amend 2013**~~, and~~** 2014 **and 20XX**)
>
> **3.13.1.5. Documentation. –** When the engine (motor) oil is sold in bulk, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery. This document must identify the quantity of bulk engine (motor) oil delivered as defined in Sections 3.13.1.1. Viscosity **grade as defined by standard SAE J300 "Engine Oil Viscosity Classification"**; 3.13.1.2. Brand; 3.13.1.3. Engine Service Category; the name and address of the seller and buyer; and the date and time of the sale. For inactive or obsolete service categories, the documentation shall also bear a plainly visible cautionary statement as required in Section 3.13.1.3.2. Inactive or Obsolete Service Categories. Documentation must be retained at the retail establishment for a period of not less than one year and shall be readily available for inspection.

The Committee recommends this proposal be changed back to Developing status, and language be modified as indicated above.

SWMA 2018 Annual Meeting: The Committee heard from Lisa Warfield (NIST OWM) that this language was modified by the submitter at the 2018 NCWM Annual Meeting. The Committee believes this item is fully developed and should be elevated to Voting status.

CWMA 2018 Interim Meeting: Kevin Ferrick (API) suggested that the committee review comments and recommendations made by the Western L&R Committee. He suggested that the phrase "SAE believes" should be stricken, and a reference to a specific standard should appear in its place. He believes there is an ongoing legal challenge related to this issue. The handbook currently has language that covers obsolete oils that references SAE J183, but the submitter believes the language should provide more guidance. Doug Rathbun (IL) supports this item moving forward with some language cleanup. Charlie Stutesman (KS) is confused about the intent of section 8.6 of the prohibitive act. Determining obsolete oils is challenging itself, but his state is working through the complexities they see in the market place. He gave several examples of why section C is not necessary. He believes further work that needs to be done on this issue. Also, he asked what determines a "modern diesel engine". Based on the

testimony heard in open hearings, and the confusing topics listed below, the committee believes this item should remain in Assigned status.

1) clarity on "modern" diesel/gasoline engine or elimination of the term "modern"
2) clarity on section 8.6 in item FLL – 1
3) clarify the need for section (c) in item FLR – 5 3.13.1.3.2.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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BLOCK 4 ITEMS (B4) TRACTOR HYDRAULIC FLUID

B4: MOS-6 Regulation for the Uniform Method of Sale of Commodities Regulation: Section 2.XX Tractor Hydraulic Fluid

B4: FLR-6 Uniform Fuels and Automotive Lubricants Regulation, Sections 1.XX. Tractor Hydraulic Fluid, 1.XX. Hydraulic Fluid, 2.XX. Products for Use in Lubricating Tractors and 3.XX. Tractor Hydraulic Fluid

Background/Discussion:

Fluids labeled as tractor hydraulic fluids claiming to meet obsolete specifications, such as John Deere 303, have been sold to consumers resulting in product misrepresentation and equipment failure. Often, these fluids do not meet any current specifications, therefore, product quality cannot be assured. Often the reference to John Deere's obsolete specification is confused with product quality assurance, even though original equipment manufacturers, such as John Deere do not stand behind these products. Current original equipment manufacturers' tractor hydraulic fluid specifications must be backward compatible to these obsolete specifications; therefore, oil marketers should not be making their primary performance claims based on these obsolete specifications.

Oil marketers and consumers argue that fluids meeting current specifications are significantly more expensive than fluids claiming to meet obsolete specifications. They argue that those who own older equipment calling for these specifications should have a more economical alternative available for purchase.

Regional Association Comments:

WWMA 2018 Annual Meeting: The committee heard a presentation from Lilla Voros (Lubrizol) regarding the proposal. The presentation is posted on the WWMA website at http://www.westernwma.org/conference/presentations. The committee recommends this be a Developing Item based on the following comments received.

- Lisa Warfield noted that the header under the Item under Consideration should be changed from Uniform Packaging and Labeling to Method of Sale on page 34 and the Uniform Packaging and Labeling Regulation should be changed to Fuels and Lubricants on page 37. The title of FLR-6 should be "Uniform Fuels and Automotive Lubricants Regulations" (remove the word engine).
- Cadence Matijevich (NV) commented that the confidentiality requirements may differ from state to state and materials submitted under confidentiality may need to meet specific state requirements. Although Ms. Voros pointed out this language came from the Automatic Transmission Fluid section of HB 130, the committee believes, and the submitter agrees, that the language regarding confidentiality should be removed from the proposal (as shown in the revised language below).
- Kurt Floren, Steven Harrington, and Bill Striejewske support the item moving forward as a Developmental Item.
- Mr. Floren provided the following comments in MOS-6 and FLR-6.

From voting session:

Kurt Floren commented that he believes there was an omission from recommendations heard during open hearings. On page 10 of the Addendum for item FLR6, language did not get changed in section 3.XX.1.6. "in this state" will be stricken, and the word "shall" will replace "may be" in next to last line of the same section.

- Corrections accepted by committee before vote, and correction made to final report.

MOS-6 the following changes are recommended:

2.XX.1. Products for Use in Lubricating Tractors. – Tractor hydraulic fluids shall meet at least one current original equipment manufacturer's requirements for ~~those~~ respective tractors or have demonstrated performance claims to be suitable for use in those tractors. Where a fluid can be licensed against an original equipment manufacturer's specification, evidence of current licensing by the marketer is acceptable documentation of performance against the specification. In the absence of a license from the original equipment manufacturer, adherence to the original equipment manufacturer's recommended requirements shall be assessed after testing per relevant methods available to the lubricants industry and the state regulatory agency. Suitability-for-use claims shall be based upon appropriate field, bench, and/or rig testing. Any manufacturer of a tractor hydraulic fluid making suitable-for-use claims shall provide, upon request by a duly authorized representative of the Director, credible documentation of such claims. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims ~~may be requested~~ shall be provided upon request ~~in confidence~~ by a duly authorized representative of the Director. Supporting data ~~may~~ shall be supplied upon request directly to the Director's office by the additive supplier(s).

2.XX.1.1. Conformance. – Conformance of a fluid per Section 2.XX.1. Products for Use in Lubricating Tractors does not absolve the obligations of a fluid licensee with respect to the licensing original equipment manufacturer or the original equipment manufacturer's licensing agent(s), where relevant.

2.XX.1.2. Tractor Hydraulic Fluid Additives. – Any material offered for sale or sold as an additive to tractor hydraulic fluids shall be compatible with the tractor hydraulic fluid to which it is added, and shall meet all performance claims as stated on the label or published on any website referenced by the label. Any manufacturer of any such product sold ~~in this state~~ shall provide, upon request by a duly authorized representative of the Director, documentation of any claims made on their product label or published on any website referenced by the label.

FLR-6 the following changes are recommended:

2.XX. Products for Use in Lubricating Tractors. – Tractor hydraulic fluids shall meet at least one current original equipment manufacturer's requirements for ~~those~~ respective tractors or have demonstrated performance claims to be suitable for use in those tractors. Where a fluid can be licensed against an original equipment manufacturer's specification, evidence of current licensing by the marketer is acceptable documentation of performance against the specification. In the absence of a license from the original equipment manufacturer, adherence to the original equipment manufacturer's recommended requirements shall be assessed after testing per relevant methods available to the lubricants industry and the state regulatory agency. Suitability for use claims shall be based upon appropriate field, bench, and/or rig testing. Any manufacturer of a tractor hydraulic fluid making suitable-for-use claims shall provide, upon request by a duly authorized representative of the Director, credible documentation of such claims. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims ~~may be requested in confidence~~ shall be provided upon request by a duly authorized representative of the Director. Supporting data ~~may~~ shall be supplied directly to the Director's office by the additive supplier(s).

2.XX.1. Conformance. – Conformance of a fluid per Section 2.XX. Products for Use in Lubricating Tractors does not absolve the obligations of a fluid licensee with respect to the licensing original equipment manufacturer or the original equipment manufacturer's licensing agent(s), where relevant.

2.XX.2. Tractor Hydraulic Fluid Additives. – Any material offered for sale or sold as an additive to tractor hydraulic fluids shall be compatible with the tractor hydraulic fluid to which it is added, and shall meet all performance claims as stated on the label or published on any website referenced by the label. Any manufacturer of any such product sold ~~in this state~~ shall provide, upon request by a duly authorized representative of the Director, documentation of any claims made on their product label or published on any website referenced by the label.

3.XX.1.6. Documentation of Claims Made Upon Product Label. – Any manufacturer, packer, or distributor of any product subject to this article and sold ~~in this state~~ shall provide, upon request of duly authorized representatives of the Director, credible documentation of any claim made upon their product label, including claims made on any website referenced by said label. If the product performance claims published by blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims ~~may be requested in confidence~~ shall be provided upon request by a duly authorized representative of the Director. Supporting data ~~may~~ shall be supplied directly to the Director's office by the additive supplier(s).

NEWMA 2018 Interim Meeting: Lilla Voros (Lubrizol) gave a presentation on the item. Walt Remmert (PA) agrees with the concept but doesn't see how this is enforceable when there is more than 1 standard in the marketplace. Mike Sikula (NY) agrees. Ms. Voros commented that she doesn't see a single industry specification moving forward. Mr. Remmert commented that the manufacturer should make OEM guidance. He is concerned that the regulatory community will have too many standards to enforce. Kristy Moore (KMoore Consulting) asked if EMA had been contacted. Mr. Lou Sakin (MA) commented that it appears this issue is not fully developed. The Committee recommended that the block of items be placed in Developing status for further development

SWMA 2018 Annual Meeting: Mr. Tim Chesser (AR) questioned the intended use for hydraulic fluid for agriculture use. The use of the two terms (tractor hydraulic fluid and agriculture fluid) are confusing to the consumer. The Committee believes that this has merit but believes that wordsmithing does need to be done to the item under consideration. Stephen Benjamin (NC) agreed that industry could use guidance pertaining to this product. North Carolina recently tested and took product off-sale. The remedy with the company was to have the product relabeled.

Definitions for products for use and lubricating tractors is too vague. There appears to be a lack of definitions and clarity throughout this item. The Committee recommends this as an Informational item.

CWMA 2018 Interim Meeting: Lilla Voros (Lubrizol) commented that the purpose of this item is to provide more protection for consumers and their equipment against diluted fluids, used oil, and other substandard products being sold as hydraulic fluid. Doug Rathbun (IL) asked what performance measures were used to establish general requirements within this proposal. Ms. Voros commented that there are no existing broadly accepted performance measures, so she compiled what she believed are best practices from engine manufacturers. Mr. Rathbun believes there needs to be very specific guidelines, and he doesn't believe they exist. He supports the concept, but, stressed that there needs to be standards and training for inspectors to better understand enforcement guidelines. Doug Musick (KS) asked if the submitter has a recommended status. Ms. Voros believes the item is still developing, and she believes that by January, the proposal should be finalized, and she hopes it will move forward. Ron Hayes (MO) supports the proposal. Kevin Ferrick (API) supports this effort, and believes it is a positive step in improving model language in Handbook 130. Based on comments heard during the open hearings, the committee believes that defined performance measures standards need to be developed and clarified, so this item should remain as a Developing item. The new proposed language which includes Ms. Voros' latest changes to date follows:

2.XX. Tractor Hydraulic Fluid.

2.XX.1. Products for Use in Lubricating Tractors. – Tractor hydraulic fluids shall meet at least one current original equipment manufacturer's requirements for ~~those~~ respective tractors or have demonstrated performance claims to be suitable for use in those tractors. Where a fluid can be licensed against an original equipment manufacturer's specification, evidence of current licensing by the marketer is acceptable documentation of performance against the specification. In the absence of a license from the original equipment manufacturer, adherence to the original equipment manufacturer's recommended requirements shall be assessed after testing per relevant methods available to the lubricants industry and the ~~state~~ regulatory agency. Suitability-for-use claims shall be based upon appropriate field, bench, and/or rig testing. Any manufacturer of a tractor hydraulic fluid making suitable-for-use claims shall provide, upon request by a duly authorized representative of the Director, credible documentation of such claims. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims ~~may be requested in confidence by~~ shall be provided to a duly

authorized representative of the Director. Supporting data ~~may~~ shall be supplied directly to the Director's office by the additive supplier(s).

2.XX.1.1. Conformance. – Conformance of a fluid per Section 2.XX.1. Products for Use in Lubricating Tractors does not absolve the obligations of a fluid licensee with respect to the licensing original equipment manufacturer or the original equipment manufacturer's licensing agent(s), where relevant.

2.XX.1.2. Tractor Hydraulic Fluid Additives. – Any material offered for sale or sold as an additive to tractor hydraulic fluids shall be compatible with the tractor hydraulic fluid to which it is added, and shall meet all performance claims as stated on the label or published on any website referenced by the label. Any manufacturer of any such product sold ~~in this state~~ shall provide, upon request by a duly authorized representative of the Director, documentation of any claims made on their product label or published on any website referenced by the label.

2.XX.2. Labeling and Identification of Tractor Hydraulic Fluid. – Tractor hydraulic fluids shall be labeled or identified as described below.

2.XX.2.1. Container Labeling. – The label on a container of tractor hydraulic fluid shall not contain any information that is false or misleading. Containers include bottles, cans, multi-quart or liter containers, pails, kegs, drums, and intermediate bulk containers (IBCs). In addition, each container of tractor hydraulic fluid shall be labeled with the following:

(a) **the brand name;**

(b) **the name and place of business of the manufacturer, packer, seller, or distributor;**

(c) **the words "Tractor Hydraulic Fluid," which may include words such as "Hydraulic Fluid for Agricultural Applications" or "Universal Tractor Transmission Oil";**

(d) **the primary 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;**

(e) **any obsolete equipment manufacturer specifications should be clearly identified as "obsolete" and accompanied by the following warning:**

Caution: This specification is no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using in applications in which it is not intended. ~~this product~~.

(f) **an accurate statement of the quantity of the contents in terms of liquid measure.**

2.XX.2.2. Identification on Documentation. – Tractor hydraulic fluid sold in bulk shall be identified on the manufacturer, packer, seller, or distributor invoice, bill of lading, shipping paper, or other documentation with the information listed below:

(a) the brand name;

(b) the name and place of business of the manufacturer, packer, seller, or distributor;

(c) the words "Tractor Hydraulic Fluid," which may include words such as "Hydraulic Fluid for Agricultural Applications" or "Universal Tractor Transmission Oil";

(d) the primary 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;

(e) any obsolete equipment manufacturer specifications should be clearly identified as "obsolete" and accompanied by the following warning:

Caution: This specification is no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using in applications in which it is not intended. ~~this product.~~

(f) an accurate statement of the quantity of the contents in terms of liquid measure.

2.XX.2.3. Identification on Service Provider Documentation. – Tractor hydraulic fluid installed from a bulk tank at time of service shall be identified on the customer invoice with the information listed below:

(a) **the brand name;**
(b) **the name and place of business of the service provider;**
(c) **the words "Tractor Hydraulic Fluid," which may include words such as "Hydraulic Fluid for Agricultural Applications" or "Universal Tractor Transmission Oil";**
(d) **the primary 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;**
(e) **any obsolete equipment manufacturer specifications should be clearly identified as "obsolete" and accompanied by the following warning:**
Caution: This specification is no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using in applications in which it is not intended. ~~this product.~~
(f) **an accurate statement of the quantity of the contents in terms of liquid measure.**

2.XX.3. Documentation of Claims Made Upon Product Label. – Any manufacturer, packer, or distributor of any product subject to this article and sold ~~in this state~~ shall provide, upon request of duly authorized representatives of the Director, credible documentation of any claim made upon their product label, including claims made on any website referenced by said label. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims may be requested in confidence by a duly authorized representative of the Director. Supporting data may be supplied directly to the Director's office by the additive supplier(s).

B4: FLR-6 Uniform Engine Fuels and Automotive Lubricants Regulation, Sections 1.XX. Tractor Hydraulic Fluid, 1.XX. Hydraulic Fluid, 2.XX. Products for Use in Lubricating Tractors and 3.XX. Tractor Hydraulic Fluid

Item Under Consideration:
Amend NIST Handbook 130, Uniform Packaging and Labeling Regulation as follows:

1.XX. Tractor Hydraulic Fluid. - A product intended for use in tractors with a common sump for the transmission, final drives, wet brakes, axles and hydraulic system.

1.XX. Hydraulic Fluid. – A product intended for use in multiple applications with a dedicated hydraulic system and sump. Such fluids cannot be used in tractors. See Tractor Hydraulic Fluid for reference.

2.XX. Products for Use in Lubricating Tractors. – Tractor hydraulic fluids shall meet at least one current original equipment manufacturer's requirements for ~~those~~ respective tractors or have demonstrated performance claims to be suitable for use in those tractors. Where a fluid can be licensed against an original equipment manufacturer's specification, evidence of current licensing by the marketer is acceptable documentation of performance against the specification. In the absence of a license from the original equipment manufacturer, adherence to the original equipment manufacturer's recommended requirements shall be assessed after testing per relevant methods available to the lubricants industry and the ~~state~~ regulatory agency. Suitability-for-use claims shall be based upon appropriate field, bench, and/or rig testing. Any manufacturer of a tractor hydraulic fluid making suitable-for-use claims shall provide, upon request by a duly authorized representative of the Director, credible documentation of such claims. If the product performance claims published by a blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims ~~may be requested in confidence by~~ shall be provided to a duly authorized representative of the Director. Supporting data ~~may~~ shall be supplied directly to the Director's office by the additive supplier(s).

2.XX.1. Conformance. – Conformance of a fluid per Section 2.XX. Products for Use in Lubricating Tractors does not absolve the obligations of a fluid licensee with respect to the licensing original equipment manufacturer or the original equipment manufacturer's licensing agent(s), where relevant.

2.XX.2. Tractor Hydraulic Fluid Additives. – Any material offered for sale or sold as an additive to tractor hydraulic fluids shall be compatible with the tractor hydraulic fluid to which it is added, and shall meet all performance claims as stated on the label or published on any website referenced by the label. Any manufacturer of any such product sold ~~in this state~~ shall provide, upon request by a duly authorized representative of the Director, documentation of any claims made on their product label or published on any website referenced by the label.

3.XX. Tractor Hydraulic Fluid.

3.XX.1. Labeling and Identification of Tractor Hydraulic Fluid. – Tractor hydraulic fluid shall be labeled or identified as described below.

3.XX.1.1. Container Labeling. – **The label on a container of tractor hydraulic fluid shall not contain any information that is false or misleading. Containers include bottles, cans, multi-quart or liter containers, pails, kegs, drums, and intermediate bulk containers (IBCs). In addition, each container of tractor hydraulic fluid shall be labeled with the following:**

(a) the brand name;

(b) the name and place of business of the manufacturer, packer, seller, or distributor;

(c) the words "Tractor Hydraulic Fluid," which may include words such as "Hydraulic Fluid for Agricultural Applications" or "Universal Tractor Transmission Oil";

(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;

(e) any obsolete equipment manufacturer specifications should be clearly identified as "obsolete" and accompanied by the following warning:

Caution: This specification is no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using in applications for which it was not intended. ~~this product~~.

~~(e)~~ (f) an accurate statement of the quantity of the contents in terms of liquid measure.

3.XX.1.2. Identification on Documentation. – **Tractor hydraulic fluid sold in bulk shall be identified on the manufacturer, packer, seller or distributor invoice, bill of lading, shipping paper, or other documentation with the information listed below:**

(a) the brand name;

(b) the name and place of business of the manufacturer, packer, seller, or distributor;

(c) the words "Tractor Hydraulic Fluid," which may include words such as "Hydraulic Fluid for Agricultural Applications" or "Universal Tractor Transmission Oil";

(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;

(e) if a tractor hydraulic is identified as meeting an obsolete equipment manufacturer standard, the following statement shall appear on any label and/or container used to sell or dispense the product:

Caution: The equipment manufacturer specifying the lubrication requirements of this tractor hydraulic fluid considers this product obsolete. Significant harm to the transmission, hydraulic system, final drive or axles is possible when using in applications for which it is not intended. ~~this product~~.

(f) an accurate statement of the quantity of the contents in terms of liquid measure.

3.XX.1.4. Bulk Delivery. – When the tractor hydraulic fluid is sold in bulk, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery. This document must identify the fluid as defined in Section 3.XX.1. Container Labeling.

3.XX.1.5. Storage Tank Labeling. – Each storage tank of tractor hydraulic fluid shall be labeled with the following:

(a) the brand name;

(b) the primary performance claim or 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;

3.XX.1.6. Documentation of Claims Made Upon Product Label. – **Any manufacturer, packer, or distributor of any product subject to this article and sold ~~in this state~~ shall provide, upon request of duly authorized representatives of the Director, credible documentation of any claim made upon their product label, including claims made on any website referenced by said label. If the product performance claims published by blender and/or marketer are based on the claim(s) of one or more additive suppliers, documentation of the claims may be requested in confidence by a duly authorized representative of the Director. Supporting data may be supplied directly to the Director's office by the additive supplier(s).**

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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FLR – UNIFORM FUELS AND AUTOMOTIVE LUBRICANTS REGULATION

FLR-7 Section 2.2. Diesel Fuel

Background/Discussion:
An informal focus group (FG) was formed in July 2016 to review Section 2.2.1 of Chapter G, Uniform Fuels and Automotive Lubricants Regulation, of NIST Handbook 130 and recommend updates to the premium diesel section. This item aims to update the requirements to better meet the needs of modern diesel engines when a fuel that has functional benefits beyond ASTM Standard Specification D975 is desired by the diesel equipment users. The FG consisted of a broad range of stakeholders. The item being proposed was approved and recommended by FALS to be a voting item for the 2019 NCWM Annual meeting.

This item has the consensus of the Fuels and Lubricants Subcommittee; all comments have been adjudicated and compromises have been made - participants have agreed to move forward with a much-improved premium diesel section and FALS is requesting L&R to consider this as a voting item in 2019.

Regional Association Comments:
WWMA 2018 Annual Meeting: Bill Striejewske (FALS Chair) commented that FALS has worked on this for a couple years and this item is ready for vote. Information regarding these efforts is posted on the NCWM website. Tim Elliott (WA) also commented that this is ready for vote. The committee agrees and believes this item should be assigned as a Voting Item.

NEWMA 2018 Interim Meeting: Mr. Mike Sikula (NY) stated that he supports the item but is curious about the exception note. The exception note was clarified by Rebecca Richardson (National Biodiesel Board). Hearing no other comments, the Committee determined the item is fully developed and reading for voting status.

SWMA 2018 Annual Meeting: There were no comments heard during open hearings. The Committee believes that this item is fully developed and recommends it as a Voting Item.

CWMA 2018 Interim Meeting: Rebecca Richardson (MARC-IV Consulting) representing the National Biodiesel Board, supports this item moving forward as a voting item. Beverly Michaels (BP) also supports the item. Ron Hayes (MO) comments that the item has been fully developed and supports the item moving forward, and believes it is ready for voting status. Charlie Stutesman (KS) commented that he believes this is an outstanding proposal and fully supports the item moving forward. Based on comments heard in open hearings, and support of the Fuels and Lubricants Subcommittee, the committee believes this item is ready for voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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FLR-8 Section 3.2.5. Prohibition of Terms

Background/Discussion:
The renewable fuels standard (RFS) has driven an increasing volume of ethanol blended with gasoline. Today most gasoline sold in the US contains up to 10% by volume ethanol. As the volume requirements for ethanol have increased under the RFS, E15 (gasoline containing up to 15% by volume ethanol) has been entering the market.

In 2014, USEPA issued requirements for the introduction of E15 for use in flexible fuel vehicles and passenger vehicles of model year 2001 and newer. The requirements prohibited the use of E15 in all motorcycles, vehicles with heavy-duty engines (e.g., school buses and delivery trucks), off-road vehicles (e.g., boats and snowmobiles), engines in off-road equipment (e.g., chain saws and gasoline lawn mowers), and conventional vehicles older than model year 2001. Because there are limitations on the use of E15, it is important that consumers are aware of the fuel they are purchasing. To address this, EPA required a label on the dispenser describing the limitations for the use of E15; however, it did not address the terms used to brand and advertise this new fuel.

Retailers have taken a variety of approaches with branding and advertising E15 on fuel dispensers as well as on price signs using labels such as "unleaded plus," "unleaded15," "unleaded 88," "Ultra 88," which can be confusing to consumers purchasing fuel. Because E15 has limitations on its use in older vehicles and small engines, it is important that when a consumer is making a choice of fuel to use, the advertising and branding of E15 and possibly other higher gasoline-ethanol blends must be addressed to provide consistency among motor fuel dispensing facilities and to reduce the risk of consumer misfuelling.

The proposed change requires that when gasoline containing greater than 10% by volume ethanol is offered for sale at a dispenser, if a grade term such as midgrade or premium is used to describe the grade of fuel, the fuel must meet the minimum AKI requirements for the grade term in accordance with the table and the grade term must be followed by EXX (e.g., Midgrade E15).

This proposal is consistent with flex fuel labeling requirements. This proposal is similar to requirements under Tennessee Rule 0080-05-12-.03 Classification and Method of Sale, Subsection (2)(d)(5) & (6). https://publications.tnsosfiles.com/rules/0080/0080-05/0080-05-12.20141203.pdf.

The proposal provides the opportunity to highlight the fuel as a renewable fuel using ethanol. Opposition to this proposal could be a desire not to highlight the ethanol content in branding or advertising or a concern that a consumer may not recognize the significance of the EXX designation.

Regional Association Comments:

WWMA 2018 Annual Meeting: This item was not submitted to the WWMA.

NEWMA 2018 Interim Meeting: Kristy Moore (Growth Energy) commented that she would like to see this item withdrawn due to a lack of data or information that misfueling of E15 exists in the marketplace. There already is EXX labeling, and it is required by many states. This proposal is duplicative and unnecessary. Jim McInerny, CT, supports the proposal because there are some instances where someone could accidentally fuel. Mike Sikula, NY, asked how this proposal is related to misfueling. Ms. Moore commented that the rationale for the proposal listed in the appendix describes misfueling. She stated that E15 is illegal in off-road applications, and E10 is available everywhere E15 is. Rebecca Richardson (MARC-IV Consulting) asked what this labeling would actually look like and doesn't believe there needs to be two labels saying the same thing on a dispenser. Regulators from PA and NY are questioning what is trying to be accomplished with the proposal that isn't already outlined in FTC guidelines. After considerable discussion, the Committee determined that the proposal is ambiguous, and the proposer needs to provide visual examples of how this proposal would be implemented, as well as rationale or data as to why this proposal is necessary. Developing status was recommended to allow the submitter to address the issues raised.

SWMA 2018 Annual Meeting: There were several letters submitted in opposition of this item. Ms. Moore (Growth Energy) testified that she would like to see this item withdrawn. Doug Musick (KS) opposes this as currently written - It is discriminatory for other additives. In addition, it duplicates the EXX labeling on gasoline. This would require them post it in two places on the dispenser.

CWMA 2018 Interim Meeting: Charlie Stutesman (KS) commented that while he understands the intent, he does not support this item. He commented that the only document that sets grade names for fuel is Handbook 130. He believes grade names should be left to the seller. If we start adding terms to the chart, we are limiting retailers as to what they can call their products. He recommends this item be withdrawn. Doug Rathbun (IL) opposes the item and recommends it be withdrawn for various reasons including significant pushback from industry. Mr. Rathbun stated he has received multiple letters from the ethanol industry opposing the item. Mike Harrington (IA) opposes the item and recommends it be withdrawn for similar reasons. Julie Quinn (MN) also opposes the item. Beverly Michaels (BP) commented that if there truly is confusion, she believes the item needs to be sent to FALS before it is dismissed. Rebecca Richardson (M4 and NBB) commented that NBB cannot take a position because there has been no presentation or defense of the proposal by the submitter. Mr. Chuck Corr (ADM) commented that he believes the item should be withdrawn and sent back to the submitter for further development. Mr. Stutesman commented that it is targeting a specific product rather than a group of oxygenates, which is another reason to oppose the item. Since there was no one to speak to the proposal, and the vast majority of the comments were to withdraw the proposal, the committee is recommending the item be withdrawn because it is specific to a single product and would require duplicative labeling of flex fuels.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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POL – NCWM POLICY, INTERPRETATIONS AND GUIDELINES

POL-1 2.3.2. Fresh Fruits and Vegetables

Background/Discussion:
This action would enhance the ability of retailers to market sweet potatoes and yams, while easing the checkout process, because individual sweet potatoes would be priced as sold "each". Consumers would be allowed to purchase specific sweet potatoes by the "each". This would provide them with a definitive price point which would enable them to monitor their spending at retail.

This change would allow the retailer to have another marketing tool to offer consumers while enhancing and increasing the sale of sweet potatoes. It would also assist the consumer in making healthy purchases according to their economic needs.

Regional Association Comments:
WWMA 2018 Annual Meeting: Lisa Warfield (NIST OWM) commented that she did not find evidence in historical documents on why sweet potatoes are not sold by count. She noted that a retailer selling smaller and larger sweet potatoes by count may not be equitable for the consumer. Additionally, changing sweet potatoes may lead to others wanting to sell by count (such as ginger, horseradish, Irish potatoes). She noted that she believes there was a lot of thought that went into these decisions in 2007. Kurt Floren (LA County, CA) noted an objection to this proposal. Potatoes have long been mandated to be sold by weight in many states. Potatoes are different sizes and the change would not only affect retail, but also wholesale in which bags of potatoes would be sold by count. This would also create a conflict within the guidelines with sale of other edible tubers.

The committee agrees with the commenters and believes this item should be withdrawn. This would not allow for value comparison shopping between various edible tubers.

NEWMA 2018 Interim Meeting: Mike Sikula (NY) commented that rather than adding a new row for sweet potatoes and yams and make the only change to include sweet potatoes and yams by the each as well (put an "x" in that column). John McGuire (NJ) argued that selling by each does not allow for full information. Mr. Sikula commented that for the entire tenure of his time with weights and measures, all potatoes including sweet potatoes and yams have been sold by the each. Ethan Bogren (Westchester Co., NY) commented that there is more variation with potatoes than with some other items sold by the each. After some discussion, the Committee determined the item as voting status with the recommended changes.

Method of Retail Sale for Fresh Fruits and Vegetables
Specific Commodity

Commodity	Weight	Count	Head or Bunch	Dry Measure (any size)	Dry Measure (1 dry qt or larger)
Artichokes	X	X			
Asparagus	X		X		
Avocados		X			
Bananas	X	X			
Beans (green, yellow, etc.)	X				X
Brussels Sprouts (loose)	X				

Method of Retail Sale for Fresh Fruits and Vegetables Specific Commodity					
Commodity	**Weight**	**Count**	**Head or Bunch**	**Dry Measure (any size)**	**Dry Measure (1 dry qt or larger)**
Brussels Sprouts (on stalk)			X		
Cherries	X			X	X
Coconuts	X	X			
Corn on the Cob		X			X
Dates	X				
Eggplant	X	X			
Figs	X				
Grapes	X				
Melons (cut in pieces)	X				
Mushrooms (small)	X			X	X
Mushrooms (portobello, large)	X	X			
Okra	X				
Peas	X				X
Peppers (bell and other varieties)	X	X			X
Pineapples	X	X			
Rhubarb	X		X		
~~**Sweet Potatoes/Yams**~~	~~**X**~~	~~**X**~~			~~**X**~~
Tomatoes (except cherry/grape)	X	X			X
Berries and Cherry/Grape Tomatoes	X			X	
Citrus Fruits (oranges, grapefruits, lemons, etc.)	X	X			X
Edible Bulbs (onions [spring or green], garlic, leeks, etc.)	X	X	X		X
Edible Tubers (Irish potatoes, **sweet potatoes**, ~~,~~ ginger, horseradish, etc.)	X	**X**			X
Flower Vegetables (broccoli, cauliflower, Brussel sprouts, etc.)	X		X		
Gourd Vegetables (cucumbers, squash, melons, etc.)	X	X			X
Leaf Vegetables (lettuce, cabbage, celery, etc.)	X		X		
Leaf Vegetables (parsley, herbs, loose greens)	X		X	X	

Method of Retail Sale for Fresh Fruits and Vegetables Specific Commodity					
Commodity	**Weight**	**Count**	**Head or Bunch**	**Dry Measure (any size)**	**Dry Measure (1 dry qt or larger)**
Pitted Fruits (peaches, plums, prunes, etc.)	X	X			X
Pome Fruits (apples, pears, mangoes, etc.)	X	X			X
Root Vegetables (turnips, carrots, radishes, etc.)	X		X		

SWMA 2018 Annual Meeting: Lisa Warfield (NIST, OWM) provided background on this item and discouraged the adoption of sweet potatoes by count. There is variability with size in this type of product. In addition, if allowed to sell by each consideration should be given to other products within the chart. She also commented that this is just guidance and not a regulation. NC is working on a regulation that would allow sweet potatoes to be sold by count within a specific grade. The Committee discussed this item at length and believes this will create an open door for other produce to have the same consideration. The Committee is recommending that this item be Withdrawn.

CWMA 2018 Interim Meeting: Ms. Shelly Miller (WI) commented that the proposal is confusing and believes it should be withdrawn. Mr. Loren Minnich (KS) commented that he does not believe this should move forward and all items should be sold by weight. Ivan Hankins (IA) does not support this item and believes the item should be withdrawn. Mr. Doug Musick (KS) commented that in considering online sales, the consumer has no choice which item to purchase, and a consumer has no opportunity for product comparison. Ms. Julie Quinn (MN) commented that there may be a need to consider a proposal that addresses any item sold by count. Mr. Doug Rathbun (IL) commented that he does not understand the inconsistency of some items being sold individually and some by weight. Mr. Hankins commented that the best thing that has come out of this item is the realization that selling items individually is always arbitrary. Ms. Quinn commented that the item deserves further consideration but should not move forward as it exists. With the evolution of online sales and stores offering pick-up service, this issue needs further consideration. Lori Jacobson (SD) commented that she agrees that online sales transaction changes the concept of selling items individually. Most comments heard in open hearings supported selling all items by weight. There was virtually no support for this item, so the committee believes this item should be withdrawn.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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POL-2 D Section 2.6.17. Methods of Sale for Packages of Consumer Commodities – Federal Trade Commission and Acceptable Common or Usual Declarations for Packages of Food – Food and Drug Administration.

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

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

This proposal is to provide NIST Handbook 130 users with easy access to tables to identify the method of sales prescribed by the Federal Trade Commission (FTC) for products subject to that agency's regulation and the acceptable common or usual declarations permitted to appear on packages of food by the Food and Drug

Administration. Much of this information has been published by FDA and FTC in out of print publications and by NIST (previously known as NBS) in its training materials since the 1970s. The information is used by the Office of Weights and Measures in both training and daily to respond to inquiries from both weights and measures officials and industry about how products are to be sold and labeled. The tables have been revised to add current FTC labeling requirements which include requirements for metric units and additional common and usual declarations for commodities that FDA has issued in recent years in response to specific inquiries from OWM that submitted to FDA to assist packers and weights and measures officials. The FDA information is based on Guide 7699.2 in the Food and Drug Administrations "Fair Packaging and Labeling Manual" (June 1978) and other FDA guidance.

This information is useful to both packers and inspectors when determining how packages should be labeled and offered for sale. It has been available for many years in out of print publications and should be made widely available through this handbook.

NIST/OWM is also requesting editorial privileges to add items as they receive confirmation from FDA as to what the acceptable common or usual declaration for a product is. NIST/OWM will then automatically update the handbook (chart) and list all changes to the Amendment chart located in the front NIST HB130.

At the 2018 NCWM Interim Meeting written comment was received from Ms. Ann Boeckman (Kraft Heinz) recommending this be a Developing item. Ms. Boeckman wants the listing to be reviewed to ensure it is consistent with current established practices and legal standards. In addition, she requests a review of the listing for consistency, clarity and appropriate use of factual product descriptors. Chris Guay (P&G) questioned why particular products were chosen in Table A and stated it would be helpful if there was and additional column in Table B, Section 2.6.17. containing notes. Mr. Kurt Floren (Los Angeles County) commented that there are products listed that conflict with HB130, Method of Sale and Labeling Requirements as well as routine practices in the marketplace. (Examples include citrus, cabbage, fresh asparagus, and berries). Berries specify no marking or dry measure while Section 1.1.2. Methods of Sale specify either weight or volume. Due to the discrepancies pointed out in the comments received, the L&R Committee recommends this be a Developing item.

At the 2018 NCWM Annual Meeting, Ms. Boeckman (Kraft Heinz) supports the work. This is based on guidance from the 1970's and it is important to have a process to maintain the information. Mr. Guay (Procter and Gamble) supports the development of this as a reference document. Mr. Floren (Los Angeles County, CA) concurs with the develops of this item but remarked that if updating it, there should not be conflict with existing regulations. An example of this would be the proposal has berries as having no marking or dry measure but the NIST Handbook 130 method of sale is weight or volume for this product.

Regional Association Comments:

WWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) commented that there are documented conflicts with this proposal that have not yet been addressed. She recommends the item remain developing. She is working with Heinz-Kraft and hopes to have clarified the proposal by January 2019 NCWM Interim meeting. There were no other comments regarding the item. The committee recommends this as a Developing Item.

NEWMA 2018 Interim Meeting: There being no comments and the Committee recommended that this item remain Developing.

SWMA 2018 Annual Meeting: The submitter, Lisa Warfield (NIST OWM) remarked that she is currently working on this item and hopes to have modified language submitted by the 2019 NCWM Interim Meeting.

CWMA 2018 Interim Meeting: Ms. Julie Quinn (MN) commented that this item only applies to packages. Chris Guay (Procter and Gamble) commented that he is supportive of this proposal but believes that listing the reference in the chart will make it more useful. The committee believes this item should be a Developing item, and references should be added to the chart.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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NET – HANDBOOK 133

NET-4 3.4. Volumetric Test Procedures for Viscous Fluids - Headspace

Background/Discussion:

Based on hands-on training at a NIST Handbook 133 – Volumetric course held by the NIST Office of Weights and Measures we are proposing minor revisions to Chapter 3. Section 3.4. "Volumetric Test Procedures Viscous Fluids – Headspace".

The first change is to eliminate the specification that the rods of depth gage micrometers be machined to be "round" instead of the typical flat surface this is due to the cost of machining a set rods in most kits, which can exceed $500. Tests conducted using flat surface rods have been found to provide highly accurate volume determinations.

Another proposed change Section 3.4.1. to add distilled water for use with the laboratory pipets or burets. In addition, the language for step 2 of Section 3.4.2. Test Procedure was clarified.

Regional Association Comments:

WWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) commented that this item is ready for vote. There were no other comments. The committee believes this item is fully developed and recommends this as a Voting Item.

NEWMA 2018 Interim Meeting: Mr. Mike Sikula (NY) stated that he would like to add "reverse osmosis water" to the existing distilled water, as that is what many metrology labs are currently using. With that suggested change, the Committee determined that the item is fully developed and ready for voting status.

3.7.1. Test Equipment

- Micrometer depth gage (ends of rods **may be flat or** fully rounded) 0 mm to 225 mm (0 in to 9 in) or longer
- Level (at least 152 mm (6 in) in length)
- Laboratory pipets and/or buret
  - Class A 100 mL buret as defined by the latest version of ASTM E287, "Standard Specification for Laboratory Glass Graduated Burets."
  - Class A pipets calibrated "to deliver "as defined by the latest version of ASTM E969, "Standard Specification for Glass Volumetric (Transfer) Pipets."
- **Distilled Water or Reverse Osmosis Water (for use with laboratory pipets and/or burets)**
- Volumetric measures
- Water
- Rubber bulb syringe
- Plastic disks that are 3 mm (P^1P/R_8R in) thick with diameters equal to the seat diameter or larger than the brim diameter of each container to be tested. The diameter tolerance for the disks is 50 µm (± 0.05 mm [± 0.002 in]). The outer edge should be smooth and beveled at a 30° angle with the

horizontal to 800 µm (0.8 mm [P1P/R32R in]) thick at the edge. Each disk must have a 20 mm (¾ in) diameter hole through its center and a series of 1.5 mm (P1P/R16R in) diameter holes 25 mm (1 in) apart around the periphery of the disk and 3 mm (P1P/R8R in) from the outer edge. All edges must be smooth.

- Stopwatch

- Partial immersion thermometer (or equivalent) with 1°C (2 °F) graduations and a range of − 35 °C to + 50 °C (− 30 °F to + 120 °F) accurate to ± 1°C (± 2 °F)

SWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) remarked that the change in this proposal modifies the depth gage micrometers to reduce the cost of maintaining accuracy. It also includes the use of distilled water. This also provides clarity to the test procedure. The SWMA recommended this be a Voting item.

CWMA 2018 Interim Meeting: Mr. Ivan Hankins (IA) commented that he believes this proposal modernizes testing procedures, and supports the item moving forward as a voting item. The committee believes this item is fully developed and ready for voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

Return To the Agenda Item

NET-5 3.7. Volumetric Test Procedure for Paint, Varnish and Lacquers – Non-Aerosol

Background/Discussion:

Based on hands-on training at a NIST Handbook 133 – Volumetric course held by the NIST Office of Weights and Measures we are proposing several revisions to Chapter 3. Section 3.7. Volumetric Test Procedure for Paint, Varnish, and Lacquers – Non-Aerosol. The first change is to eliminate the specification that the rods of depth gage micrometers be machined to be "round" instead of the typical flat surface. This is due to the cost of machining a set of rods in most kits, which can exceed $500 and tests conducted using flat surface rods have been found to provide highly accurate volume determinations.

Another proposed change is to eliminate the audit test procedures that utilizes dimensional testing on cylindrical paint containers to estimate volume because these methods are both time consuming perform and one has a large uncertainty (greater than 0.6 percent) which makes it use impractical in the field. Because the container designs and packaging materials used to package paint have changed since the 1970s when the current test procedures for paints were developed the OWM is recommending that revised version of the current "Violation Procedure" in 3.7.2. (c) be adopted because it utilizes a gravimetric test procedure (or, if the density of the paints varies excessively it instructs the inspector to use a headspace test procedure to determine volume) to verify the volume in any size or design of paint container and can be used for enforcement actions.

Section 3.7.1. "Test Equipment" –

- Deletes the requirement that the ends of rods be fully rounded because flat ends provide accurate test results and the requirement requires that the rods in depth gage sets be re-machined at the cost of several hundred dollars. Clarify additional information for the metal disk, remove Pi tape and add the need for a thermometer

Under Section 3.7.2. Test Procedures –

- Delete Section 3.7.2.a. "Field (Retail) Auditing Procedure" since the dimensional test procedure is only applicable to cylindrical containers and is difficult and time consuming to perform in the field and has an uncertainty that exceeds 0.6 percent.
- Revises the "Plant Audit Test Procedure" because it is only used for audit purposes.
  Revises the "Violation Procedure" to read "Test Procedure" to adapt it for use (Attachment for Form 15 Section 3-7 proposal.) in testing any type or shape container of paint and add a note that if the gravimetric

procedure cannot be used that Section 3.4. Volumetric Test Procedure for Viscous Fluids – Headspace" shall be used.

- Revises "Violation Procedure" to adapt it for use (see attachment title (Attachment for Form 15 Section 3-7 proposal.) in testing any type or shape container of paint and add a note that if the gravimetric procedure cannot be used that Section
- 3.4. Volumetric Test Procedure for Viscous Fluids – Headspace" shall be used.

There may be opposition since this proposal only eliminates some auditing procedures and includes minor revisions to the current violation procedure, which, if it cannot be used is replaced with the headspace test procedure in Section 3.4. Volumetric Test Procedures for Viscous Fluids - Headspace. At this time, NIST, OWM does not anticipate opposition.

Regional Association Comments:
WWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) commented that this item is ready for vote. Mr. Kurt Floren (LA County, CA) commented that he is supportive of this item with a few exceptions that are noted below. The committee believes this item is fully developed and recommends this as a Voting Item with the changes noted below. The changes noted below only include the portions of this item with recommended changes.

From voting session:
On L&R Addendum Report, page 19, Mr. Floren commented that the change made as a final note, the repositioning of "and consider this test" should be double-underlined.

- Committee acknowledge this as an editorial change. Change has been made in final report.

3.7. Volumetric Test Procedure for Paint, Varnish, and Lacquers– Non-Aerosol

~~Use one of three different test methods depending upon the required degree of accuracy and the location of the inspection. The procedures include both retail and in plant audits, and a "possible violation" method that is designed for laboratory or in plant use because of cleanup and product collection requirements. The procedures are suitable to use with products labeled by volume and packaged in cylindrical containers with separate lids that can be resealed.~~ The following procedure is used to verify the net quantity of contents of containers of paint, varnish, wood, stains, sealants, lacquers or like products labeled by volume. For the purposes of this test procedure, the term "paint" includes any surface coating liquid or product (i.e., varnish, lacquers, and other coatings).

Section 3.7.1 Test Equipment, 12th bullet point:

- Metal disk or other appropriate solid shape, 6.4 mm (¼ in) thick and slightly smaller than the diameter of package container bottom. (used to support the bottom of package and prevent deflection that may affect the volume)

Section 3.7.2 Test Procedures, paragraph a:

Use the following procedure to conduct an ~~in plant~~ audit inspection in a production facility. This method applies to a ~~container~~ containers in a sample that ~~probably~~ are the lightest in weight and likely to contain ~~contains~~ the smallest volume of product. Duplicate the level of fill with water in ~~a~~ an empty unused container ~~can~~ of the same dimensions and capacity as the one under test. Use this method to check any size of package if the liquid level is within the measuring range of the depth gage. If any paint is clinging to the sidewall or lid, carefully scrape the paint into the container using a rubber spatula to ensure the full content volume is measured.

The second Note at the end of section 3.7.2 Test Procedures (WWMA L&R page 79):

Note: To conserve inspection time and reduce destructive testing, the inspector may stop testing and consider this test as an audit if the first few containers contain the correct volume ~~and consider this test~~

~~as an audit~~. However, the inspector may continue to test the complete sample to determine the average fill level of the entire sample.

NEWMA 2018 Interim Meeting: Mr. Mike Sikula (NY) stated that he would like to add "reverse osmosis water" to the existing distilled water, as that is what many metrology labs are currently using. With that suggested change, the Committee determined that the item is fully developed and ready for voting status.

3.7.2. Test Equipment

- Micrometer depth gage (ends of rods **may be flat or** fully rounded) 0 mm to 225 mm (0 in to 9 in) or longer
- Level (at least 152 mm (6 in) in length)
- Laboratory pipets and/or buret
  - Class A 100 mL buret as defined by the latest version of ASTM E287, "Standard Specification for Laboratory Glass Graduated Burets."
  - Class A pipets calibrated "to deliver "as defined by the latest version of ASTM E969, "Standard Specification for Glass Volumetric (Transfer) Pipets."
- **Distilled Water or Reverse Osmosis Water (for use with laboratory pipets and/or burets)**
- Volumetric measures
- Water
- Rubber bulb syringe
- Plastic disks that are 3 mm (P^1P/R_8R in) thick with diameters equal to the seat diameter or larger than the brim diameter of each container to be tested. The diameter tolerance for the disks is 50 µm (± 0.05 mm [± 0.002 in]). The outer edge should be smooth and beveled at a 30° angle with the horizontal to 800 µm (0.8 mm [$P^1P/R_{32}R$ in]) thick at the edge. Each disk must have a 20 mm (¾ in) diameter hole through its center and a series of 1.5 mm ($P^1P/R_{16}R$ in) diameter holes 25 mm (1 in) apart around the periphery of the disk and 3 mm (P^1P/R_8R in) from the outer edge. All edges must be smooth.
- Stopwatch
- Partial immersion thermometer (or equivalent) with 1°C (2 °F) graduations and a range of − 35 °C to + 50 °C (− 30 °F to + 120 °F) accurate to ± 1°C (± 2 °F)

SWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) remarked that the change in this proposal modifies the depth gage micrometers to reduce the cost of maintaining accuracy. It also includes the use of distilled water. This also provides clarity to the test procedure.

CWMA 2018 Interim Meeting: Mr. Ivan Hankins (IA) commented that he believes this proposal modernizes testing procedures, and supports the item moving forward as a voting item. The committee believes this item is fully developed and ready for voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

Return To the Agenda Item

NET-6 Section 4.8. Procedure for Checking the Area Measurement of Chamois

Background/Discussion:
Questions on the test procedure arose during a NIST OWM advanced HB133 training course. This led to a review, research and analysis of the chamois test procedure. As part of this process, the OWM sought the expertise and help of Hopkins Manufacturing Corporation (formerly Acme Sponge & Chamois Company) due to their leading role with NCWM in the 1970's, in the original development of this NIST HB 133 test procedure. In addition, review and input was sought from eight other companies, comprising a majority of the industry.

A significant change in the procedure, is the removal of the step "sample conditioning under Section 4.8.2. Gravimetric Procedure for Area Measurement. When initially developed in the 1970's, moisture loss was a significant factor when testing chamois. This is no longer a primary factor. Reasons for removing this step in the process is due to a shorter shelf life, improved store environmental conditions, and improved tanning process. With these improvements, chamois have become increasingly (negatively) reactive to the hydration/conditioning process (causing the chamois to swell and pulling the fiber inward), leading to shrinkage of the surface area, rather than the originally intended result of restoring area.

Regional Association Comments:
WWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) commented that there has been a significant change in this procedure to remove the laboratory portion. In the 1970s moisture loss was a significant factor, but this has since changed due to manufacturing processes. This test procedures have been tested in NIST training classes and with Los Angeles inspectors and found to work. Also, ambient temperatures in stores (air conditioning) have changed. Mr. Kurt Floren, (LA County, CA) voiced support for this item, but added that investigators should have the correct equipment for conducting an inspection (referring to taping graph paper together in section 4.8.1.2 paragraph 3).

The committee believes this item is fully developed and recommends this as a Voting Item with the changes noted below. The changes noted below only include the portions of this item with recommended changes.
Section 4.8.1.2. Audit Test Procedure, paragraph 3:

> Note: Graph paper of an appropriate size shall be used. However, if a single sheet of appropriate-sized graph paper is not available, it ~~It~~ may be necessary to tape sheets of graph paper together to create an area sufficient in size to measure the area for a chamois greater than 23.22 dm^2 (2.5 sq ft). Determine the area by counting the number of squares the chamois covers. Use a ruler to help calculate the area. Add the number of partially covered squares. (See Figure 4-3. "Template for Checking the Area of a Chamois.") Compute the total area and refer to the Decision Criteria ~~Section 4.8.3.~~ to determine if further action is necessary.

NEWMA 2018 Interim Meeting: No comments were heard and the Committee believes this item is fully developed and ready for voting status.

SWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) discussed the chamois background and provided reasoning for the change to the procedure. In addition, the following was sent to the Committee for consideration:

> **Reasoning for the modification**: As stated under the test equipment the largest size of the required graph paper is 43.18 cm x 55.88 cm (17 in x 22 in). The modified language stresses that the inspector should use the largest graph paper available but may tape them together. This will discourage inspectors from using small size graph paper available in the marketplace. We are aware that inspectors know they must have proper equipment to perform an inspection.
>
> The changes noted below only include the portions of this item with recommended changes.
> Section 4.8.1.2. Audit Test Procedure, paragraph 3 change the first two sentence in the note to read as follows (I have bolded the change):
>
> **Note: Graph paper of an appropriate size shall be used. However, if a single sheet of appropriate-sized graph paper is not available, it may be necessary to tape sheets of graph paper together to create an area sufficient in size to measure the area for a chamois greater than 23.22 dm P^2 (2.5 sq ft).** Determine the area

by counting the number of squares the chamois covers. Use a ruler to help calculate the area. Add the number of partially covered squares. (See Figure 4-3. "Template for Checking the Area of a Chamois.") Compute the total area and refer to the Decision Criteria ~~**Section 4.8.3.**~~ to determine if further action is necessary

CWMA 2018 Interim Meeting: No comments were heard. The committee feels this item has been fully developed as is ready for voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

Return To the Agenda Item

NET-7 D Section 4.XX. Softwood Lumber

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

Mr. David Sefcik
NIST, Office of Weights and Measures
(301) 975-4868, david.sefcik@nist.gov

There is not a test procedure for softwood lumber in NIST HB133. The proposed procedure follows good measuring practices for products sold by linear measure. Over the past several years' states have requested guidance for a test procedure that determines the accuracy of softwood lumber. The test procedure was derived in part from the efforts of the California Division of Measurement Standards whose development and use over the years has shown reliable and repeatable results. This procedure was also developed with input provided from Mr. David Kretschmann, (President, American Lumber Standards Committee {ALSC}) whose field representatives complete over 300 inspections a year to ensure self-compliance within their industry. ALSC field representatives validated the attached test procedure on 16 different size and types of softwood products.

At the 2018 NCWM Interim Meeting, Mr. Kretschmann commented that he used the test procedures and it works. Mr. Kretschmann also submitted a letter of support for this item. Mr. Kurt Floren (LA County, CA) commented that NIST Handbook 133, Section 4.10.3.2. should clarify moisture content range requirements (for example, if it is 25.1 % through 25.9 %, which paragraph would apply, 4.10.3.2(3)(a) or 4.10.3.2(3)(b)). This lack of clarity also exists in in the dry lumber section. Lastly, on the worksheet the MAV Table 2.8. Maximum Allowable Variations (MAVs) for Packages Labeled by Length, Width, or Area refers to 'packaging' and should be changed to reference softwood lumber. Several regulators commented on the need and cost to purchase new equipment such as gauge blocks and calipers for following these test procedures. Mr. Kretschmann commented that they are not concerned with gauge blocks or calipers, the moisture meter is most important. Due to the uncertainty of the applied tolerance due to moisture content, the L&R Committee recommends this item as Developing.

At the 2018 NCWM National Meeting, Mr. Kretschmann was supportive of the shrinkage changes that have been addressed since the NCWM Interim Meeting. The Committee received modified language from NIST OWM and will move this language forward.

Regional Association Comments:
WWMA 2018 Annual Meeting: Mr. David Kretschmann (ALSC) and Steve Zylkowski (APA) provided a presentation and answered technical questions. Lisa Warfield, NIST OWM, commented that this item is fully developed and ready for vote. Mr. Kurt Floren (LA County, CA) supports the proposal but requests changes regarding the decimal places for the moisture content in Table X.X on page 85 and Table X.X on page 86. The submitter agrees with the changes and submitted updated tables as presented below. Mr. Floren also questioned the cost of the moisture meters used for testing and the presenter noted they are around $300. The committee believes this item is fully developed and recommends this as a Voting Item with the changes noted below.

Table X-X. Determining Moisture Shrinkage Allowance for Dry Lumber Thickness and Width Dimensions Only	
If the Moisture Content is:	Allow the Following Moisture Shrinkage Allowance:
15.00 % - 18.99 %	1.00 %
	0.70 % for Redwood, Western Red Cedar, and Northern White Cedar
11.00 % - 14.99 %	2.00 %
	1.40 % for Redwood, Western Red Cedar, and Northern White Cedar
7.00 % - 10.99 %	3.00 %
	2.10 % for Redwood, Western Red Cedar, and Northern White Cedar
3.00 % - 6.99 %	4.00 %
	2.80 % for Redwood, Western Red Cedar, and Northern White Cedar

Table X-X. Determining Moisture Shrinkage Allowance for Unseasoned (Green) Lumber Thickness and Width Dimensions Only	
If the Moisture Content is:	Allow the Following Moisture Shrinkage Allowance:
26.00 % - 29.99 %	1.00 %
	0.70 % for Redwood, Western Red Cedar, and Northern White Cedar
22.00 % - 25.99 %	2.00 %
	1.40 % for Redwood, Western Red Cedar, and Northern White Cedar
18.00 % - 21.99 %	3.00 %
	2.10 % for Redwood, Western Red Cedar, and Northern White Cedar
14.00 % - 17.99 %	4.00 %
	2.80 % for Redwood, Western Red Cedar, and Northern White Cedar
10.00 % - 13.99 %	5.00 %
	3.50 % for Redwood, Western Red Cedar, and Northern White Cedar
6.00 % - 9.99 %	6.00 %
	4.20 % for Redwood, Western Red Cedar, and Northern White Cedar
2.00 % - 5.99 %	7.00 %
	4.90 % for Redwood, Western Red Cedar, and Northern White Cedar

NEWMA 2018 Interim Meeting: Mr. Mike Sikula (NY) stated he still has concerns that these requirements are too onerous from a standards perspective and are not appropriate. He would support the item if the equipment requirements are more reasonable. A calibrated steel linear measure should be an alternative to precision gage blocks and a caliper. As a result, the Committee recommends the item remain as Developing.

SWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) remarked that a modified chart was submitted into the Committee that amends the decimal on the percentage.

Dry lumber:

Table X-X. Determining Moisture Shrinkage Allowance for Dry Lumber Thickness and Width Dimensions Only	
If the Moisture Content is:	**Allow the Following Moisture Shrinkage Allowance:**
15.00 % - 18.99 %	**1.00 %**
	0.70 % for Redwood, Western Red Cedar, and Northern White Cedar
11.00 % - 14.99 %	**2.00 %**
	1.40 % for Redwood, Western Red Cedar, and Northern White Cedar
7.00 % - 10.99 %	**3.00 %**
	2.10 % for Redwood, Western Red Cedar, and Northern White Cedar

3.00 % - 6.99 %	**4.00 %**
	2.80 % for Redwood, Western Red Cedar, and Northern White Cedar

Unseasoned lumber:

Table X-X. Determining Moisture Shrinkage Allowance for Unseasoned (Green) Lumber Thickness and Width Dimensions Only	
If the Moisture Content is:	**Allow the Following Moisture Shrinkage Allowance:**
26.00 % - 29.99 %	**1.00 %**
	0.70 % for Redwood, Western Red Cedar, and Northern White Cedar
22.00 % - 25.99 %	**2.00 %**
	1.40 % for Redwood, Western Red Cedar, and Northern White Cedar
18.00 % - 21.99 %	**3.00 %**
	2.10 % for Redwood, Western Red Cedar, and Northern White Cedar
14.00 % - 17.99 %	**4.00 %**
	2.80 % for Redwood, Western Red Cedar, and Northern White Cedar
10.00 % - 13.99 %	**5.00 %**
	3.50 % for Redwood, Western Red Cedar, and Northern White Cedar
6.00 % - 9.99 %	**6.00 %**
	4.20 % for Redwood, Western Red Cedar, and Northern White Cedar
2.00 % - 5.99 %	**7.00 %**
	4.90 % for Redwood, Western Red Cedar, and Northern White Cedar

CWMA 2018 Interim Meeting: Mr. Doug Musick (KS) commented that he attended the Southern regional meeting and there were spokespeople there who supported this item, as well as NET-8. The committee did not have the understanding necessary to recommend a status

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

Return To the Agenda Item

NET-8 D Section 4.XX. Plywood and Wood-Based Structural Panels

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

Mr. David Sefcik
NIST, Office of Weights and Measures
(301) 975-4868, david.sefcik@nist.gov

Currently there is no test procedure for plywood and wood-based structural panels in NIST HB133. This procedure follows good measuring practices for products sold by linear measure. Over the past several years' states have requested guidance for a test procedure that determines the accuracy of plywood and wood-based structural panels. This procedure was developed with the input from Mr. Steve Zylkowski, (Director, Quality Services Division, Engineered Wood Association [APA]) (APA was previously known as the American Plywood Association). When the APA changed their name, it was decided to leave the acronym APA because it was so well established.

At the 2018 NCWM Interim Meeting comments were received from regulators and industry supporting this item as Informational. Mr. Steve Zylkowski (APA) recommended this item remain Informational to await PS1 and PS2 standards that are currently being reviewed. Based on the comments received the L&R Committee recommends this item as Developing to allow NIST to review additional information received from the PS1 and PS2 voluntary standards update.

At the 2018 NCWM Annual Meeting the Committee reviewed the modified language submitted by NIST OWM on June 26, 2018. In addition Mr. Zylkowski (APA) supports this proposal and provided the Committee with research and supporting documents.

Regional Association Comments:

WWMA 2018 Annual Meeting: Mr. David Kretschmann (ALSC) and Steve Zylkowski (APA) gave a presentation and answered technical questions. Lisa Warfield, NIST OWM, commented that this item is fully developed and ready for vote. Mr. Kurt Floren (LA County, CA) supports the proposal but noted a typographical error in Section 4.XX.2.2 where it noted "Structural Plywood and Oriental Strand Board" should be "Structural Plywood and Oriented Strand Board," which was corrected by the submitter. The committee believes this item is fully developed and recommends this as a Voting Item with the change noted.

NEWMA 2018 Interim Meeting: Mr. Mike Sikula (NY) stated that he still has concerns that these requirements are too onerous from a standards perspective and are not appropriate. He would support the item if the equipment requirements are more reasonable. A calibrated steel linear measure should be an alternative to precision gage blocks and a caliper. As a result, the Committee recommends the item remain as Developing.

SWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM(remarked that there is an editorial change that needs to be made:

> **4.XX.2.2. Moisture Shrinkage Allowance for Structural Plywood and Wood-Based Structural Panels Structural plywood and oriented strand board (OSB) shrink and swell with changes in moisture content. The standardized moisture content for Structural Plywood is 9 % (PS 1-09, "Structural Plywood." Section 5.10, "Dimensional Tolerances and Squareness of Panels)". The equivalent standardized moisture content of OSB is 8 %.**

Mr. Steve Zylkowski (APA) remarked that he has worked closely with NIST to get this item fully developed. He concurred that this item is ready for a Vote. Ms. Christy Cordova (Georgia Pacific) stated this aligns with the manufacturing standard and she also supports this as a voting item.

CWMA 2018 Interim Meeting: Mr. Doug Musick (KS) commented that he attended the Southern regional meeting, and there were spokespeople there who supported this item, as well as NET-7. The committee did not have the understanding necessary to recommend a status

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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NET-9 D Recognize the Use of Digital Density Meters

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

Mr. Ronald Hayes
Missouri Department of Agriculture
(573) 751-4316, ron.hayes@mda.mo.gov

Background/Discussion:
Current test procedures are slow and awkward due to the need of using borosilicate glassware for package checking. Digital density meters are fast, use small samples size (2 ml) and have built in thermometers.

Digital density meters are fast and accurate in comparison with recognized Handbook 133 test procedures for viscous fluids. Using digital density meters equipped with built-in API density tables will not require the cooling samples to 60 °F. There is no need to "wet down" volumetric flasks before each measurement. Most non-food products may be recovered without contamination. Only a small sample size (2 ml) of the product is needed for testing. There is no need for a partial immersion thermometer or volumetric flasks. The current method in "Section 3.4. Volumetric Test Procedures for Viscous Fluids – Headspace" does not work for plastic oblong bottles often used for motor oil. This new test procedure would eliminate the entrapment of air in testing viscous fluids (i.e. motor oil, DEF, antifreeze, syrups, etc.) Well established ASTM and other international standard test methods are available with precision statements.

At the 2016 NCWM Interim Meeting, Mr. Ron Hayes (Missouri) spoke in regard to his submittal of this proposal. The Committee believes this item has merit and requested that the submitter form a focus group to further develop. Mr. Hayes agreed that this item needs have additional data gathered to support the use and accuracy of the digital density meters. The American Petroleum Institute (API) remarked that they would like to assist the task group on this project. The Committee is making this a Developing Item.

At the 2017 NCWM Interim Meeting the submitter Mr. Hayes (MO) asked for the states participation in a round robin to compare the current handbook test procedures with the density meter. The Committee encouraged the submitter to develop a proposal by Fall 2017.

At the 2018 NCWM Interim Meeting, Mr. Ron Hayes (MO) gave a presentation regarding this item. Mr. Lou Sakin (MA) recommended this item be assigned with a specific timetable for development. No other comments were heard on this developing item. The L&R Committee recommends this item as Developing to allow the submitter to finish developing test procedures and review with NIST/OWM staff.

At the 2018 NCWM Annual Meeting, Mr. Hayes (MO) provided an update that he has been doing testing and getting repeatability with his results. Mr. Hayes remarked that when NIST OWM was teaching a NIST Handbook 133- Basic course in MO he had an opportunity to use the density meter on some of the test procedures.

Regional Association Comments:
WWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) commented that NIST has evidence presented in a paper from 2006 which demonstrates that this equipment does not work in all applications and recommends withdraw. This paper is on the NCWM website. The committee recommends this item remain as a Developing Item; however, if a proposal is not submitted by the 2019 Interim Meeting, we recommend the item be Withdrawn.

NEWMA 2018 Interim Meeting: Mr. Jimmy Cassidy (Cambridge, MA) commented that a developer should not count on developing any item in perpetuity. He said that the NCWM Board has concerns with items that sit on the agenda for a number of years. Ms. Rebecca Richardson (MARC-IV Consulting) commented that Mr. Ron Hayes (MO) reported that the item will be ready to consider by the 2019 NCWM Interim meeting. Mr. Lou Sakin (Hopkinton, MA) believes the item has been on the agenda for too long. The Committee determined this item should remain in Developing status until the Interim meeting. If no additional information comes forward by that time, the item should be withdrawn.

SWMA 2018 Annual Meeting: Ms. Lisa Warfield (NIST OWM) commented they have tested various products with the digital density meters (soda, viscous products) and there are some issues with testing. A NIST document is available under the NCWM L&R supporting documents that is a comparison document that NIST developed using the density meters in package testing. The density meter works well products that are non-viscous and non-carbonated but does do well with other products. Craig VanBuren, MI, remarked that a description of products needs to be developed as to what works with the density meter. The Committee notes in the Appendix A. that the developer has been given prior deadlines to submit an item. At this time no proposal has been submitted and the Committee is recommending the item be Withdrawn.

CWMA 2018 Interim Meeting: Mr. Ron Hayes (MO) submitter of the item, commented that NIST had contacted him regarding earlier testing of digital density meters, and there was some problem with them. He is trying to get the report NIST prepared, and the appendix of the report is missing. That appendix has more information about what items were tested and what the results were. Mr. Hayes commented that the language for the proposal will be fully developed by the January 2019 NCWM Interim Meeting, and ready for consideration by the committee. He asked the group for input as to how he should write out the proposal – using ASTM method numbers or notating the steps, so there would be no charge for acquiring the ASTM methods. One person recommended writing out the steps. He hopes to have the proposal ready for consideration at the Interim. Mr. Craig VanBuren (MI) commented that he believes that digital density meters are a great alternative to having glass in the field. He supports seeing proposed language and subsequently moving this item forward. Mr. Charles Stutesman (KS) commented that he wants to see steps written out rather than listing ASTM standard methods. The submitter explained the language for the proposal is currently being developed and should be ready for review by the NCWM Interim meeting in January, 2019. Consequently, the committee recommends the item remain as a Developing item

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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OTH – OTHER ITEMS

OTH-1 D Fuels and Lubricants Subcommittee

This item is to provide a report on the activities of the Fuels and Lubricants Subcommittee which reports and provides recommendations to the Laws and Regulations Committee. For more information or to provide comment, please contact:

Mr. Bill Striejewske, Chairman of the Fuels and Lubricants Subcommittee
Nevada Department of Agriculture/Bureau of Petroleum Technology
(775) 353-3792, wstriejewske@agri.state.nv.us

Background/Discussion:
At the 2017 NCWM Interim Meeting, FALS reviewed the four items on the L&R agenda (2307-1, 2307-2, 2307-3 and 2307-4) and two additional related items in the Method of Sale Section (2302-7 and 2302-9). FALS also heard updates from four focus groups working within FALS and several presentations from FALS members. Additionally, the Subcommittee discussed membership and voting guidelines that would be applied to agenda items and issues addressed within FALS.

At the 2017 NCWM National Meeting, the Subcommittee reviewed the four items (2307-1, 2307-2, 2307-3, and 2307-4) on the L&R agenda and two additional related items in the Method of Sale Section (2302-7 and 2302-9). , Item 2307-2 related to Ethanol Flex Fuels was discussed at the meeting as the submitter was not able to attend the agenda review teleconference. The meeting also consisted of updates from the four focus groups (FG) working within FALS.

At the 2018 NCWM Interim Meeting in St. Pete Beach, Florida, FALS reviewed four blocks (Blocks 2, 3, 4, and 5 encompassing 13 items), as well as two items designated FLR on the L&R agenda. One of the latter items was withdrawn. There was also an update provided by the Premium Diesel focus group.

At the 2018 NCWM National Meeting in Tulsa, OK, FALS reviewed the four item blocks (block 2, 3, 4, and 5 [13 items total]) and one FLR item on the L&R agenda. It was recommended that Item Block 4, Gasoline and Gasoline with Ethanol be withdrawn. There will also be a presentation along with discussion of these items at the fall regional meetings.

Premium Diesel Focus Group: At the 2018 NCWM Interim Meeting, Co-chair Mr. Manuch Nikanjam (Chevron) presented the efforts of the focus group. The Premium Diesel FG assessed properties of diesel for their validity in defining a product as Premium. The Subcommittee discussed this work and agreed that it was complete and that a Form 15 should be submitted in time for the Fall 2018 regional meetings. At the 2018 NCWM Annual Meeting, Mr. Randy Jennings provided an update of the FG's work.

Renewable Diesel Focus Group: This group has been dormant for some time. For those interested in this work contact Mr. Allan Morrison (Renewable Diesel FG Chair). It is anticipated that a report by CRC would be released in August 2018, that should be of value to the FG.

Fuels Quality Council Update: The Council has finalized its survey, to which a wide range of stakeholders in the fuel supply chain provided input to ensure that the various segments of the fuel supply chain had the opportunity to provide questions regarding fuel quality issues. The Council has also completed work on a non-disclosure agreement so that survey respondents can share confidential information and the ability to anonymize the data so that a thorough analysis of the severity and scope of the problem can happen. The Council will be looking at all segments of the fuel supply chain, costs of the problem, possible solutions and associated costs with the goal of providing options for FALS to consider.

Regional Association Comments:
WWMA 2018 Annual Meeting: The committee appreciates the efforts of FALS and recommends this item remain as a Developing Item.

CWMA 2018 Interim Meeting: Mr. Ron Hayes (FALS Vice-chair) commented that FALS will next convene at the ASTM meeting on Monday, Dec. 10 at 4 pm in Atlanta, Georgia. If FALS members are not in attendance, they may join the meeting via teleconference.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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OTH-2 D Packaging and Labeling Subcommittee

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:

Mr. Chris Guay, Chairman of the Packaging and Labeling Subcommittee
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Background/Discussion:
The Package and Labeling Subcommittee (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 Chairman and NIST Technical Advisor. Mr. Guay, (PALS Chair) reported that work is currently being progressed through monthly webinar meetings and at the NCWM meetings. Members of NCWM can participate in the PALS meetings by contacting Mr. Guay. PALS members are responsible for providing updates at their Regional Meetings. Mr. Guay added PALS will be developing proposals and 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.

Mr. Guay reported that PALS is working on a Recommended Best Practice Document for quantity expressions appearing on the principal display panel (PDP) in addition to the required statement of net quantity and is beginning work on packages/products sold exclusively through e-commerce sites. In addition, PALS is considering further development of the following items:

- **Additional Net Content Declarations on the Principal Display Panel to Meet U.S. and International Requirements** - Package net contents are most commonly determined by the product form, for example – solid products are labeled by weight and liquid products are labeled by volume. Semi-solid products such as pastes, creams and viscous liquids are required to be labeled by weight in the United States and by volume in Canada.
- **Icons in Lieu of Words in Packaged labeled by Count** – Can a clear and non-misleading icon take the place of the word "count" or "item name" in a net content statement? While existing Federal regulation requires regulatory label information to be in "English," the increasing presence of multilingual labels and the growing diversity of the U.S. population suggest more consumers are served with a clear and non-misleading icon.
- **Multipacks and Bundle Packages** - The net content statements for multipacks and bundled packages of individually labeled products can be different based on the approach used to calculate them. The difference is the result of the degree of rounding for dual U.S. customary units and metric declarations. Using two apparently valid but different methods can yield two different results; one net content statement result that provides closer accuracy between the declared metric and U.S. customary declaration, or a different net content result which is more intuitive but less accurate.

At the 2017 NCWM Interim Meeting Mr. Guay reported PALS has made progress on a Recommended Best Practice Document for quantity-related statements appearing on the package net content statement outside of the required statement of net quantity. He noted that no guidance or regulation exists for these types of statements and as a result, every manufacturer creates their own approach. A Recommended Best Practice Document is expected to help bring uniformity and consistency by providing a reference for these types of label statements. This document will either be a stand-alone document on the NCWM website as a NCWM publication. Ms. Ann Boeckman (PALS Member) provided a presentation to the PALS summarizing the history of the U.S. Fair Packaging and Labeling Act, FTC's FPLA regulations, and positions taken by FTC when questions were referred to the agency.

At the 2017 Annual Meeting, PALS met with a representative of the FDA to provide a detailed overview of the background, development, and status of the developing "Recommended Best Practice" document. While also invited, FTC was unable to attend this meeting. PALS is planning to continue development of this document and continue outreach to federal agencies as it works to finalize the draft of the document. PALS plans to share the "Recommended Best Practice" document" to NCWM members for input once the draft is complete.

At the 2018 Interim Meeting, Mr. Guay reported that the PALS was making good progress on a "Recommended Best Practice" document" for quality related statements appearing on the package net contents statement outside of the required statement of net quantity. A completed first draft is expected in late 2018. A Recommended Best Practice Document is expected to bring uniformity and consistency by providing a reference for these types of label expressions. This document will either be a stand-alone document on the NCWM website or an NCWM publication.

At the 2018 Annual Meeting, Mr. Guay reported that the PALS was expecting to complete the first draft of a "Recommended Best Practice" document in 2018 and would begin to do vetting amongst a group of NCWM volunteers. Once input is received and incorporated, the PALS plans to reach out to FDA to review the content of the document with their compliance organization for further input. In addition, the PALS began discussing the need for clarity of packaging and labeling requirements for products which are sold solely in e-commerce distribution. These products may be modified in design and labeling compared to packages intended for retail shelf sale.

Regional Association Comments:
WWMA 2018 Annual Meeting: The committee appreciates the efforts of PALS and recommends this item remain as a Developing Item.

CWMA 2018 Interim Meeting: Mr. Guay (PALS Chair) commented that the committee is working primarily on two topics. The first is a document intended to provide information about expressions that appear on the primary display panels of packages. The second topic is related to the labeling aspect of e-commerce. The committee will provide reports on progress throughout the next year. He further commented that there are a number of additional issues related to e-commerce that need to be considered. He invited attendees to feel welcome to participate with the subcommittee.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.net/meetings/interim/publication-15 to review these documents.

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