

Executive Summaries from the NIST OWM Analysis of the 2024 NCWM Laws and Regulations (L&R) Interim Meeting Agenda

The NIST OWM Executive Summary is extracted from the NIST OWM Analysis. This provides the NIST OWM community with high level points that summarize the technical aspects and recommendations for the Item Under Consideration. The full NIST OWM Analysis can be viewed at <https://www.nist.gov/pml/owm/publications/owm-technical-analysis>. NIST OWM offers these comments and recommendations based upon information and input available as of the date of this report.

Language shown in bold face print by **striking out** information to be deleted and **underlining** information to be added.

For additional information or assistance please contact a NIST OWM Technical Advisor:

Lisa Warfield, L&R Committee, lisa.warfield@nist.gov or (301) 975-3308

John McGuire, L&R Committee, john.t.mcguire@nist.gov or (202) 981-1750

Subject Series List

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

Table of Contents

Subject Series List	1
PAL – Uniform Packaging and Labeling Regulation	3
NIST OWM Executive Summary for PAL-24.1 – Section 10.11. <i>Cannabis</i> and <i>Cannabis-</i> Containing Products	3
MOS – Uniform Regulation for the Method of Sale of Commodities	3
NIST OWM Executive Summary for MOS-24.2 – Section 2.16.3.1. Tare Weights, (c) Allowable difference	3
NIST OWM Executive Summary for MOS-24.3 – Section 2.16.3.1. Tare Weights, (d) Average Requirement	4
NIST OWM Executive Summary for MOS-24.4 – Section 2.16.3.1. Tare Weights, (e) Tare Determination.....	5
RSA – Uniform Regulation for the Voluntary Registration of Service Persons and Service Agencies for Commercial Weighing and Measuring Devices	5
NIST OWM Executive Summary for RSA-24.1 – Section 4. Voluntary Registration.....	5
FLR – Uniform Fuels and Automotive Lubricants Regulation	6
NIST OWM Executive Summary for FLR-23.3 – Section 2.20. Hydrogen Fuel	6
NET – Handbook 133: Checking the Net Content of Packaged Goods	6
NIST OWM Executive Summary for NET-22.1 – Section 1.2.6. Deviations Caused by Moisture Loss or Gain and Section 2.3.8. Table 2-3 Moisture Allowances.....	6
NIST OWM Executive Summary for NET-24.1 – Section 3.11. Ice Cream Novelties.....	8
NIST OWM Executive Summary for NET-24.2 – Section 4.9. Procedure for Checking the Contents of Specific Agriculture Seed Packages Labeled by Count., and Appendix D. AOSA Rules for Testing Seeds.	9
OTH – Other Items	9
NIST OWM Executive Summary for OTH-24.1 – X, Uniform Shipping Law	9
Item Block 1 (B1) Renewable Diesel and Diesel	10
NIST OWM Executive Summary for Item Block 1 (B1) –Renewable Diesel and Diesel	10
Item Block 2 (B2) Reference ASTM Standards D8080 and D8487	10
NIST OWM Executive Summary for Item Block 2 (B2) –Reference ASTM Standards D8080 and D8487	10

PAL – Uniform Packaging and Labeling Regulation

NIST OWM Executive Summary for PAL-24.1 – Section 10.11. Cannabis and Cannabis-Containing Products
<p data-bbox="203 373 1128 405">NIST OWM Recommendation: OWM recommends this item be Withdrawn.</p> <ul data-bbox="248 443 1409 940" style="list-style-type: none"><li data-bbox="248 443 1409 537">• This proposal is a warning statement rather than a quantity statement. If this becomes a requirement within NIST Handbook 130, Section 10.1.2(a)(3) it will violate the existing UPLR Section 8.1 General.<li data-bbox="248 575 1409 672">• Health issues should be regulated by the state or local health department or cannabis commission, and/or FTC or the FDA when cannabis becomes legally recognized by the federal government.<li data-bbox="248 709 1409 741">• Proposals with pictograms have been rejected by NCWM because they are not enforceable.<li data-bbox="248 779 1409 842">• In the item under consideration the word “percent” or the symbol “%” should be used for uniformity throughout the document.<li data-bbox="248 879 1409 940">• If this item proceeds forward in NCWM, it should be assigned to the NCWM Cannabis Task Group. <hr data-bbox="203 1003 500 1008"/> <p data-bbox="203 1045 1409 1148">¹ In contrast to hemp, marijuana remains a Schedule I substance under the Controlled Substances Act. NIST does not have a policy role related to the legalization of the production, sale, distribution, or use of cannabis (including hemp and marijuana). NIST participates in the National Conference of Weights and Measures (NCWM) as part of NIST’s statutory mission to promote uniformity in state laws, regulations, and testing procedures.</p>

MOS – Uniform Regulation for the Method of Sale of Commodities

NIST OWM Executive Summary for MOS-24.2 – Section 2.16.3.1. Tare Weights, (c) Allowable difference
<p data-bbox="203 1333 1409 1396">NIST OWM Recommendation: OWM recommends a status of Informational to allow DOT PHMSA to respond to the NCWM petition (dtd. January 2023).</p> <p data-bbox="203 1434 1409 1528">NOTE: The Committee should consider blocking Items MOS-24.2, MOS-24.3, and MOS-24.4 if they remain on the L&R Agenda. Each of these Items are modifications to subsections c, d, and e in Section 2.16.3.1.</p> <ul data-bbox="235 1566 1409 1801" style="list-style-type: none"><li data-bbox="235 1566 1409 1703">• NCWM petitioned the Department of Transportation – PHMSA requesting they reevaluate the allowable differences and they consider existing NIST Handbook 130 tolerances and data provided within the SP 2200-01, 2022 NCWM-NIST National Survey on 20 lb LPG (Propane) Cylinders.<li data-bbox="235 1740 1409 1801">• Once the Committee reviews the response from DOT and if this item moves forward the language for 2.16.3.1.(c) should appear as:

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

(1) For cylinders manufactured prior to December 28, 2022 shall be within:

- ~~(1)~~**i.** $\frac{1}{2}$ % for tare weights of 9 kg (20 lb) or less; or
- ~~(2)~~**ii.** $\frac{1}{4}$ % for tare weights of more than 9 kg (20 lb).

(2) For cylinders manufactured on or after December 28, 2022 shall be within the following limits prescribed by General requirements for specification cylinders, 49 C.F.R. § 178.35:

- i. For a cylinder of 25 lbs or less at the time of manufacture, a lower tolerance of 3 % and an upper tolerance of 1 %; or**
- ii. For a cylinder exceeding 25 lbs at the time of manufacture, a lower tolerance of 2 % and an upper tolerance of 1 %.**

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

NIST OWM Executive Summary for MOS-24.3 – Section 2.16.3.1. Tare Weights, (d) Average Requirement

NIST OWM Recommendation: OWM recommends this item be Withdrawn.

NOTE: The Committee should consider blocking Items MOS-24.2, MOS-24.3, and MOS-24.4 if they remain on the L&R Agenda. Each of these Items are modifications to subsections c, d, and e in Section 2.16.3.1.

- This proposal seeks to remove the Average Requirement from NIST HB 130, Method of Sale Regulation for compressed or liquified gases in refillable cylinders in Section 2.16.3.1.(d).
- This safeguard has been in place in NIST HB 130, Method of Sale Regulation since 1990. The proposal was developed in conjunction with the Compressed Gas Association (CGA).
- The “Average Requirement” is essential to ensuring the net quantity of contents in packaged goods and is designed to avoid complaints from consumers and competitors who believe the seller misrepresented the net quantity of the product.
- OWM and NCWM believe this an important safeguard. NCWM cited this in their petition (dtd. Jan. 2023) to DOT requesting they amend Hazardous Materials: Miscellaneous Amendments Pertaining to DOT Specification Cylinders 49 C.F.R. § 178.35.

- Predominance is indicated in NIST Handbook 44 1.10 General Code G-UR.4.1

G-UR.4. Maintenance Requirements.

G-UR.4.1. Maintenance of Equipment. – All equipment in service and all mechanisms and devices attached thereto or used in connection therewith shall be continuously maintained in proper operating condition throughout the period of such service. Equipment in service at a single place of business shall not be considered “maintained in a proper operating condition” if:

- (a) predominantly, equipment of all types or applications are found to be in error in a direction favorable to the device user; or
- (b) predominantly, equipment of the same type or application is found to be in error in a direction favorable to the device user.

NIST OWM Executive Summary for MOS-24.4 – Section 2.16.3.1. Tare Weights, (e) Tare Determination

NIST OWM Recommendation: OWM recommends this item be Withdrawn.

NOTE: The Committee should consider blocking Items MOS-24.2, MOS-24.3, and MOS-24.4 if they remain on the L&R Agenda. Each of these Items are modifications to subsections c, d, and e in Section 2.16.3.1.

- This Item refers to when the “removable protective cap and label” are not included as part of the stamped or stenciled tare, and whether it “should” or “must” be included in the total tare determination.
- The Method of Sale Regulation clearly states that accurate tare is needed to properly determine net contents verification. If the protective cap and label are not included in the stamped tare weight on the cylinder it must be included in the total tare weight determination when a net contents verification test is performed.
- Industry practice has been not to include the protective cap and label as part of the stamped tare, because they are considered “removable”.

RSA – Uniform Regulation for the Voluntary Registration of Service Persons and Service Agencies for Commercial Weighing and Measuring Devices

NIST OWM Executive Summary for RSA-24.1 – Section 4. Voluntary Registration

NIST OWM Recommendation: OWM recommends a status of Informational.

- This agenda item changes the individualized State training, certification, and experience factors from the sole discretion of the Director and allowing another Standards development organization to become another qualifying entity for Registered Service Agents. This is not an inhibitor; rather it is an additional resource that needs to be fully vetted.

- Directors need to fully vet the standards organization to ensure proper qualifications are being met.
- What are the minimum criteria and which organizations?
- Will each standards organization meet the same quality of training and testing of the Directors program?
- Currently, 30 States adopt the RSA with an addition 15 States having a law or regulation in force but not based on NCMW standard.

FLR – Uniform Fuels and Automotive Lubricants Regulation

NIST OWM Executive Summary for FLR-23.3 – Section 2.20. Hydrogen Fuel

NIST OWM Recommendation: OWM recommends this item be returned to the submitter for additional development to address the questions and concerns raised at the Conference.

- The weights and measures community recognizes for more than two decades a concerted effort in the hydrogen community to globally align related standards.
- Address the concerns raised about the proposal resulting in dual fuel quality standards in effect should there be a delay in the alignment process. What are the mechanisms in place for rapid alignment of the standards and the technical committee with oversight having the ability to recognize emerging test methods for the verification of constituent values?
- There should be clarification on whether specific portions of the ISO standard applicable to fueling road vehicles must be cited in the fuel specification requirement. What guidance is offered for that interim period when the SAE and ISO standards differ or what would occur if as a result of the standard review cycle if the hydrogen community is left with differing contaminant specifications where the standards cannot be aligned?

NET – Handbook 133: Checking the Net Content of Packaged Goods

NIST OWM Executive Summary for NET-22.1 – Section 1.2.6. Deviations Caused by Moisture Loss or Gain and Section 2.3.8. Table 2-3 Moisture Allowances

NIST OWM Recommendation¹: OWM recommends the item remain assigned to the Cannabis Task Group (TG). However, there are some significant issues need to be addressed before this item is ready for adoption.

- The L&R Committee requested that the NCWM Cannabis TG follow NIST Handbook 130, NCWM, Interpretations and Guidelines, Section 2.5.6. “Guidelines for NCWM Resolution of Requests for Recognition of Moisture Loss in Other Packaged Products” to establish the moisture allowances (loss and gain). In 1988, NCWM Task Force developed this Guidelines we encourage the Cannabis Moisture Allowance TG to follow this guidance.

NIST OWM Executive Summary for NET-22.1 – Section 1.2.6. Deviations Caused by Moisture Loss or Gain and Section 2.3.8. Table 2-3 Moisture Allowances

- OWM does not concur with adding a 3 % weight variance without study, documentation, and verification of results.
- A modification to NIST Handbook 133 procedures will need to be submitted for consideration. Current procedures are written to guide inspectors only on applying a moisture allowance when a sample has a negative average error.
- They would need to conduct a nationwide scientifically valid study that reflects regional environment and seasonal changes in humidity. Any studies should also consider the different types of packaging into consideration. This needs to be for both moisture loss and moisture gain (as being proposed). The involvement of industry is crucial for this study.
- Two key components, among others, for any industry in determining moisture loss include:
 1. having “real world” data on product as found in the retail marketing chain (not just laboratory moisture loss data); and
 2. collect data on industry-wide basis (rather than from only one or two companies).
- The 3 % was assigned by the Cannabis TG; the TG based this value on other known commodities stated within NIST HB 133, Table 2-3 Moisture Allowance and to align with California regulations. The Cannabis Moisture Loss WG has not shared any moisture allowance data with the Cannabis TG or L&R Committee.
- OWM recognizes that there was only one member of the Cannabis TG Moisture Loss WG. We encourage other members to join this group, submit data, and reach consensus on bringing language forward to the L&R Committee. OWM recommends that the state directors be surveyed to determine if they intend to have their inspectors take enforcement action on overweight packages of *cannabis*. If they do not implement this type of enforcement action for the reason, they doubt that the public or courts would find those cases justify prosecution, then the approach should probably not be added to NIST Handbook 133 and remain as guidance.

¹ In contrast to hemp, marijuana remains a Schedule I substance under the Controlled Substances Act. NIST does not have a policy role related to the production, sale, distribution, or use of cannabis (including hemp and marijuana). NIST participates in the National Conference of Weights and Measures (NCWM) as part of NIST’s statutory mission to promote uniformity in state laws, regulations, and testing procedures.

NIST OWM Executive Summary for NET-24.1 – Section 3.11. Ice Cream Novelties

NIST OWM Recommendation: OWM recommends this item be Developing.

- Modify the title to include all packaged ice cream and similar frozen products. We recommend the aligning with language similar to the NIST Handbook, Method of Sale, Section 1.7.1. Factory Packaged Ice Cream and Similar Frozen Products”.
- OWM recommends that the formatting standard be used to have the graphics be placed below where it is mentioned in the Test Procedure and not within the Test Equipment.
- In 3.11.1. Test Equipment, under the Insulation Shield, NIST OWM recommends it read as follows:
 - **Insulation Shield**
 - **Styrofoam Board – minimum one-inch-thick**
 - **Styrofoam glue**

The remaining portion of the submitters descriptor for the Insulation Shield should be moved under Step 4, as this is part of the Test Procedure.

The insulation shield should be assembled with dimensions that will cover as much surface area of the displacement vessel and minimal gaps between the seams (see Figure 3-7(b)(c)(d), “Example of an insulation shield with displacement vessel”). The purpose of the insulation shield is to reduce thermal transfer from the ambient environment to the displacement vessel in order to maintain the immersion fluid at 1 °C (33 °F) or below, as consistently as possible during testing.

In Section 3.11.1. Test Equipment, we recommend the following clarification to the test equipment identified.

- Change the following: Freezer or ice chest ~~containing and dry ice~~.
- Add a new line item and include OSHA require standards for handling dry ice:
 - **Ice Cubes or Dry Ice (Safe Handling and Storage of Dry Ice | OSHA Safety Manuals (Safe Handling and Storage of Dry Ice | OSHA Safety Manuals <https://www.safetymanualosha.com/safe-handling-and-storage-of-dry-ice/>**
- Define what an insulation blanket is under **Plastic Pitcher with insulation blanket**.
- Define what type of Strainer is required.
- In Section 3.11.2. Test Procedure, Step 2, needs to be clarified. The displacement vessel and the insulation shield should be in the freezer or ice chest “**separately,**” or “**assembled together**”? (Step 5 states “**When the displacement vessel and the insulation shield are both chilled and ready to be used, assemble them together (see Figure 3-7(b)(c)(d)).**”

Does it have a different effect/result if they are combined within the freezer? We also question the effectiveness of placing a container of water in a “refrigerator” versus a freezer to assist with the chilling process.

- Step 4 (new), the following ratio is defined: **Water: Dry ice: Ice cubes = 6 : 1 : 2**. This ratio needs to be clarified. For example, what does 6 parts of water mean? What does 2 parts dry ice mean? And what does 2 parts ice cubes mean? Can a ratio between the water, dry ice, ice cubes be defined?
- Step 14 and Step 15 (new), implies that Step 2 (freezing the displacement vessel and Styrofoam insulation shield) is not needed to be repeated. Does the data support that freezing the defined test equipment in Step 2, and maintaining the equipment at the required temperature for one test or possibly for 12 tests? When must the inspector refreeze the displacement vessel and Styrofoam insulation shield?
- OWM recommends that more testing be done by other counties and/or states to support the results. The results submitted are only based on two to three tests.

NIST OWM Executive Summary for NET-24.2 – Section 4.9. Procedure for Checking the Contents of Specific Agriculture Seed Packages Labeled by Count., and Appendix D. AOSA Rules for Testing Seeds.

NIST OWM Recommendation: OWM recommends a status of Voting.

- NIST OWM believes this aligns with the Association of Official Seed Analyst (AOSA) test method and will update NIST Handbook 133 Appendix D. AOSA Rules for Testing Seeds to reflect the most updated version of the AOSA document.
- Appendix D. AOSA Rules for Testing Seeds is a document provided by the Association of Official Seed Analyst <https://analyzeseeds.com/>.
- On November 14, 2023, NIST OWM received copyright permission to reprint the matter into NIST Handbook 133 and AOSA has forwarded the matter to NIST OWM for inclusion if adopted.

OTH – Other Items

NIST OWM Executive Summary for OTH-24.1 – X, Uniform Shipping Law

NIST OWM Recommendation: OWM believes this item be Assigned to a Task Group to develop. The submitter remarked at the 2023 NEWMA Interim Meeting they would be willing to participate or Chair a Task Group.

- NIST OWM has applied the appropriate formatting according to NIST Handbooks.

Item Block 1 (B1) Renewable Diesel and Diesel

NIST OWM Executive Summary for Item Block 1 (B1) –Renewable Diesel and Diesel
<p>NIST OWM Recommendation: NIST OWM recommends this Item remain Assigned.</p> <ul style="list-style-type: none">• The “Source” should be changed from CC Consulting, LLC to reflect that it is currently assigned to “FALS”.• NIST OWM recognizes that FALS met on December 12, and the Item Under Consideration in the NIST OWM Analysis reflects the latest language submitted to the L&R Committee.

Item Block 2 (B2) Reference ASTM Standards D8080 and D8487

NIST OWM Executive Summary for Item Block 2 (B2) –Reference ASTM Standards D8080 and D8487
<p>NIST OWM Recommendation: NIST OWM believes this item has merit and looks forward to the development of this item.</p> <ul style="list-style-type: none">• The submitter cites the incorrect Regulation within their submitted Form 15 and justification statement. The Item under Consideration for B2: MOS-24.1 and FLR-24.1 is amending the Uniform Regulation for the Fuels and Lubricants Regulation (NCWM identifier “FLR”) and not the cited Method of Sale Regulation (NCWM identifier “MOS”). .