

Laws and Regulations (L&R)
Committee Agenda Items:

Executive Summary



In preparation for the 2024 Annual Meeting of the National Conference on Weights and Measures (NCWM) on July 14 – 18, 2024

Executive Summaries from the NIST OWM Analysis of the 2024 NCWM Laws and Regulations (L&R) Annual 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. Requirements that are proposed to be nonretroactive are printed in *bold faced italics*.

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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

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PAL – Uniform Packaging and Labeling Regulation

NIST OWM Executive Summary for PAL-24.1 – Section 10.11. Cannabis and Cannabis-Containing Products

NIST OWM Recommendation¹: Withdrawn.

This item is viewed as a Health warning label and should not be regulated by Weights and Measures.

This Item has been Withdrawn by the NCWM L&R Committee at the 2024 Interim Meeting.

- 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.
- 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.
- Proposals with pictograms have been rejected by NCWM because they are not enforceable.
- In the item under consideration the word “percent” or the symbol “%” should be used for uniformity throughout the document.
- If this item proceeds forward in NCWM, it should be assigned to the NCWM Cannabis Task Group.

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

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

NIST OWM Recommendation: OWM recommends a status of Informational to allow DOT PHMSA to respond to the NCWM petition (dtd. January 2023).

This Item has been given a status of Informational by the NCWM L&R Committee at the 2024 Interim Meeting.

- On June 6, 2024, the DOT PHMSA posted in a Federal Register Notice for a “Request For Information,” asking for input and feedback on 5 questions. This was a direct result of the NCWM Petition that was submitted. They request comments back by September 24, 2024. ([Federal Register :: Hazardous Materials: Request for Feedback on Tare Weight Marking Policy for Cylinders](#))

**NIST OWM Executive Summary for MOS-24.2 – Section 2.16.3.1. Tare Weights, (c)
Allowable difference**

- At the end of March 2024, NIST OWM reached out to the Department of Transportation and the DOT is considering next steps. These steps may include reaching out to the regulated community of cylinder manufacturers, fillers, users, and other interested parties for additional information.
- 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.
- 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: Withdrawn.

This Item has been Withdrawn by the NCWM L&R Committee at the 2024 Interim Meeting.

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.

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

- 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: Withdrawn.

This Item has been Withdrawn by the NCWM L&R Committee at the 2024 Interim Meeting.

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

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

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 Voting with the editorial changes within our Detailed Technical Analysis.

- This agenda item has experienced some revisions based on Regional and the NCWM 2024 Interim meeting. NIST OWM supports this item as it moves forward to a vote. This item will provide uniform standards to service providers and allow each Weights and Measures Director to maintain jurisdictional authority.
- NIST OWM has incorporated the new language in PUB 16 from the submitter and has formatted it for membership. NIST OWM has included additional language that has been reviewed and approved by the submitter. See crosswalk within the NIST OWM Detailed Analysis and on the NCWM supporting documents.
- 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: Although OWM recommended this item be returned to the submitter for additional development to address the questions and concerns raised at the Conference, OWM agrees with the recommendation of Withdrawn from the NCWM L&R Committee agenda.

- This Item has been Withdrawn by the NCWM L&R Committee at the 2024 Interim Meeting. 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). NIST OWM is not opposed to this item however there are some significant issues that need to be addressed before this item is ready for adoption.

OWM sought the expertise and insight of Dr. Walter Brent Wilson, NIST Research Chemist. Dr. Wilson is a nationally recognized expert chemist in the field of Cannabinoids. Dr. Wilson also is the coordinator of the NIST Chemical Sciences Division Cannabis Research Program and collaborates with state governments, commercial testing laboratories, and the cannabis industry to advance measurement capabilities and quality assurance in this realm of commerce. The following is an excerpt of Dr. Wilson's evaluation based on the Michigan study. (The recommendation can also be found in the NIST OWM Detailed analysis).

1. Using one strain or species seems reasonable, but the study falls short of evaluating the effect of initial (the time of packaging) moisture of products produced under various environmental conditions, especially during the growing and curing (drying) process. Cannabis is cured to moisture levels typically no more than 15% to promote shelf stability and prevent mold growth. However, the final moisture content of the product after the curing process can vary considerably. A representative study should take into the effect of moisture loss for products that have significantly different moisture levels at the time of packaging. Why? – a product that is drier (say 6 % moisture or less) at the time of packaging has less potential for moisture mass loss than a moister product (14 % moisture). Also, there are variances allowed in ASTM D8459 – 22. A

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

broader marketplace survey would better assess this effect than using only one or two sources of samples that have the same initial moisture content. The Michigan lab testing at different humidity levels provides good data concerning the environmental factors for 12-week storage, but samples from multiple sources should be compared. We are not convinced that the sample contents and packaging materials are adequately representative of the cannabis market.

2. The study comprised a 12-week period. Packaged cannabis can be stored for significantly longer periods of time prior to sale. The ASTM D8423 – 22 (Standard Specification for Environmental Conditions for Post-packaged Storage and Retail Merchandising of Cannabis/Hemp Flower) allows samples to be stored for much longer periods (ranging from 195 days at 30 °C to 17 years at 5 °C). Furthermore, humidity conditions vary considerably over days, weeks, and seasons. We would recommend the study be lengthened and incorporate a test of real-world conditions that cycle through natural variations in humidity. Climate (geographical) and seasonal factors, various periods of storage, and other influences might provide valuable information that cannot be gathered in a highly controlled lab environment.
3. There is a direct correlation between moisture loss or gain and how well a seal can be made with a particular type of packaging material. This study covers one source and one design for each of the three packaging materials. The ability to make a seal could depend upon package design/quality just as much as the material (e.g., some poly bag designs, manufacturers, or sealing processes may yield better-sealed packages than others). Additionally, other types of packaging are used such as metal containers. There is variation in seal quality among packaging types, designs, and sealing procedures that might not be reasonably represented by this study.
4. The quantities of test samples were approximately 3.5 grams. Prepackaged product is often sold in quantities of around 20 grams. Using a small quantity of 3.5 grams is not fully representative of packages in the marketplace. Sample size could influence the degree of water occlusion (entrapment) within the sample. Testing should be done using packaged quantities that cover larger packaged quantities commonly found in the marketplace.

Again, OWM asks where the industry is on this topic. as there are no data to support this item to be included in NIST Handbook 130. (Recently a letter of support for this item has been posted to the NCWM supporting documents) NIST OWM recommends to the Cannabis Task Group to reach out to Michael Bronstein President of the American Trade Association for Cannabis and Hemp (ATTACH) (submitter of letter in the NCWM supporting documents) and request their industry to submit their studies and data reflecting the need for a 3% moisture loss to warrant the inclusion into NIST Handbook 130.

NIST OWM is not aware of States actively demonstrating net weight compliance inspections, either on a regular or even complaint basis, where they believe the package was short caused by moisture loss. Net weight inspections of packages may have been conducted and detected short weight items; however, have further investigations taken place to determine if the product was short due to moisture alone? Has the manufacturer/packer or distributor been contacted to discuss the short weight issue and have they responded by stating it was caused by moisture?

The NCWM cannabis task group needs to identify the containers in Table 2.3 Moisture Allowance for storage as not all containers are equal. As shown in the Michigan study, glass seems to retain moisture

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

the best within the study; therefore, it should not be included in the 3% moisture allowance; this could also apply to Cryovac and other packages.

Cannabis Task Group amended the item under consideration to only reflect a 3% moisture loss and has dropped the 3% moisture gain from it. Clarifying why the 3% moisture gain should be removed could help membership make their decision.

To our knowledge, the Michigan Study has not been posted to supporting documents. This has been identified by Kurt Floren, LA County, during the interim meeting in January 2024, the membership has not had the opportunity to review it. (During the writing of this analysis the Michigan Study has been posted to the NCWM website)

The words (loss only) should not appear within the Cannabis row in Table 2-3 Moisture Allowance.

- The NCWM 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.
- 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,

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

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-24.2 – 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: 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 is encouraged and looks forward to this item being Assigned to the Uniform Shipping Task Group for their consideration.

- NIST OWM has applied the appropriate formatting according to NIST Handbooks.
- A request from the L&R Committee to form a Task Group has been asked for and granted by the Chair of the NCWM. The Uniform Shipping Law Task Group has been formed.

ITEM BLOCK 1 (B1) RENEWABLE DIESEL AND DIESEL

NIST OWM Executive Summary for Item Block 1 (B1) – Renewable Diesel and Diesel

NIST OWM Recommendation: Voting.

- NIST OWM collaborated with FALS and the original submitter after the 2024 NCWM Interim meeting in New Orleans for the L&R Committee report. Certain editorial changes were submitted at the NCWM Interim meeting by FALS and incorporated into the item under consideration by the L&R Committee.
- NIST OWM agrees with the language submitted by FALS (see NCWM supporting documents) which has been incorporated into Pub 16 including the items below.
- For clarification, MOS **2.40 Diesel Fuel (d)** should be reflected as the change, not in section 2.40.1.1. This change only adds the letter “s” to the word additives. (This change was proposed by FALS in their supporting document)
- Renumbered MOS **2.40.2 Premium Deisel** must include the entire section as to not infer the removal of subsections (a) through (f). This is done to ensure proper formatting and reference as the entire section needs to be included for membership and inclusion into the Handbook if/when voted upon. (Currently not shown in Pub 15)
- FALS has made a recommendation to change the language in MOS Definitions, **1.XX**. however, this recommendation needs to be reflected as **1.27, Fuel Oil** as this is already defined in NIST Handbook 130 Method of Sale.

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

NIST OWM Recommendation: NIST OWM supports FLR 24.2 as Voting and breaking up the Block to have FLR24.1 Assigned to FALS.

- The submitter recommended this Block as Developing on the Form 15 for the 2024 Interim NCWM meeting. The NCWM L&R Committee moved this to a Voting status during the Interim meeting.
- MOS 24.1 in Pub 15 has been changed to FLR 24.2 in Pub 16 to accurately convey the Subject Series (identifier).
- NIST OWM concurs with the language and supports FLR 24.2 Sections 2.9 and 2.10 as voting. The recommended change from SAE J1616 and SAE J2699 to ASTM D8080 aligns the more widely used ASTM standards in NIST Handbook 130.
- NIST OWM supports for Voting Section 2.XX with additional changes. NIST OWM in concert with the submitter discussed 2.XX and concluded a needed change to the Title would be more appropriate. The following change should be made to the item under consideration:

NIST OWM Executive Summary for Item Block 2 (B2) – Reference ASTM Standards D8080 and D8487

- 2.XX. ~~Compressed~~ Natural Gas (CNG) blended with hydrogen as a Motor Vehicle Fuel. - Shall meet the latest version of ASTM D8487 “Standard Specification for Natural Gas, Hydrogen Blends for Use as a Motor Vehicle Fuel.” (Amended 20XX)
- Removing the word “Compressed” and (CNG) along with adding the words “**as a Motor Vehicle Fuel**” more aligns with the ASTM standard than the current Item under consideration.
- The two remaining items in Block 2 (3.11.2.1.X. and 3.12.2.X.) NIST OWM believes they should be Assigned to FALS for further review. With the inclusion of the ASTM Standard, the submitter needs to align the labeling of the dispenser with the appropriate dispenser language differentiating the grades being sold.
- In Pub 16, within the “Item under consideration”, the Section numbers for this Item (FLR 24.1) have been inserted prior to any action being taken. These section identifiers (numbers) should remain as 3.11.2.1.X and 3.12.2.X. This will ensure proper placement within NIST Handbook 130 IV. Uniform Regulations F. Uniform Fuels and Lubricants Regulation.
- Questions have risen (See Detailed Analysis), and OWM believes this would incur a substantial change to the L&R Voting item. Collectively, the Submitter and NIST OWM have concluded that this item should be downgraded and Assigned to the Fuels and Lubrication Subcommittee (FALS) for further development. This will give the submitter and NIST OWM time to rework the language and update FLR 24.1 agenda item to FALS.
- Item Block 2 should reflect both titles (FLR 24.1 and FLR 24.2) within the header of this block.
- 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”)

ITEM BLOCK 3 (B3) ICE CREAM

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

NIST OWM Recommendation: Voting.

- Modified the Title language to allow the intent of the test procedure to incorporate ice cream, ice pops, and similar frozen products and tend not to be so exclusive. In doing so, NIST OWM recognized that this change would prompt an alignment with NIST Handbook 130 Method of Sale Section 1.7.1.
- The new title in NET 24.1 to read: 3.11.1 ~~ICE CREAM NOVELTIES~~ ICE CREAM, ICE POPS, AND SIMILAR FROZEN NOVELTIES.
- NIST OWM has presented the recommended change of MOS 24.5 (Method of Sale Section 1.7.1.) to the L&R Committee and worked with the submitter on the additional edits in NET 24.1. The

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

L&R committee has included these changes in the agenda item and incorporated MOS 24.5 as an Informational item into a newly formulated Block 3 in Pub 16.

- The new MOS definition in NIST Handbook 130 would read as follows:

1.7.1 ~~Factory Packaged Ice Cream, Ice Pops, and Similar Frozen Products.~~ **Novelties** – Ice cream, ice milk, frozen yogurt and similar products shall be kept, offered, or exposed for sale in terms of fluid volume.
- Remove the “hand drawn Ice Cream” illustration and replace with the “Graphic” picture in 3-7 (a)
- 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.

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

- 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.