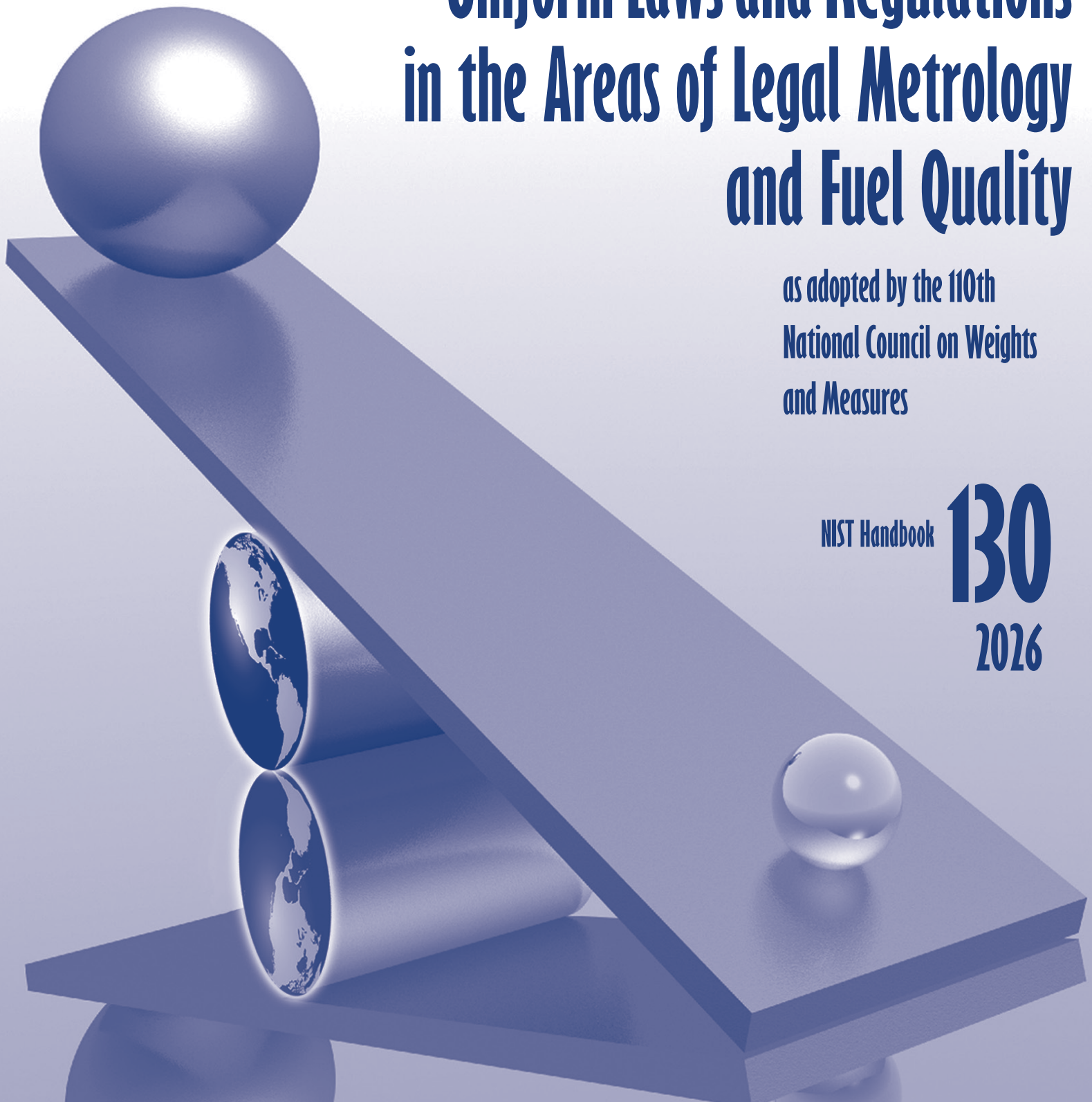
NIST | OFFICE OF WEIGHTS AND MEASURES

Uniform Laws and Regulations in the Areas of Legal Metrology and Fuel Quality

as adopted by the 110th National Council on Weights and Measures



NIST Handbook 130

2026

NIST Handbook
NIST HB 130-2026

Uniform Laws and Regulations in the Areas of Legal Metrology and Fuel Quality

as adopted by the
110th National Council on Weights and Measures

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December 2025

U.S. Department of Commerce
Howard Lutnick, Secretary

National Institute of Standards and Technology
Craig Burkhardt, Acting Under Secretary of Commerce for Standards and Technology and Acting NIST Director

NIST OFFICE OF WEIGHTS AND MEASURES

Certain commercial entities, equipment, or materials may be identified in this document to describe an experimental procedure or concept adequately. Such identification is not intended to imply recommendation or endorsement by the National Institute of Standards and Technology (NIST), nor is it intended to imply that the entities, materials, or equipment are necessarily the best available for the purpose.

This handbook promotes the primary use of the International System of Units (SI) by citing SI units before U.S. customary units where both units appear together, and by placing separate sections containing requirements for SI units before corresponding sections containing requirements for customary units. In some cases, however, trade practice is currently restricted to the use of U.S. customary units; therefore, some requirements in this handbook will continue to specify only U.S. customary units until the National Council on Weights and Measures (NCWM) achieves a broad consensus on the permitted metric units.

Marijuana (also referred to as cannabis) remains a Schedule I substance under the Controlled Substances Act. As with all materials, the NIST Office of Weights and Measures (OWM) provides technical analysis and any relevant expertise to help ensure that the standards as developed through the NCWM process are technically sound. As such, NIST publishes the adopted model regulations for cannabis and cannabis-containing commodities by the NCWM in the NIST Handbook 130 as part of NIST's statutory mission to promote uniformity in state laws, regulations, and testing procedures.[*]

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[*] NIST does not have a policy role related to the legalization of the production, sale, distribution, or use of cannabis (including hemp and marijuana).

Abstract

NIST Handbook 130 includes a compilation of model laws and regulations and related interpretations and guidelines designed to encourage uniformity in the adoption and implementation of weights and measures laws and regulations. The model laws and regulations included in NIST Handbook 130 are adopted in various forms by many state, local, and some federal weights and measures authorities. Some authorities adopt the current versions as written; some use them as the basis of adoption, but from an earlier year; some use them as a guideline only; some elect to use their own laws or regulations; and some have no corresponding law or regulation in place.

The National Institute of Standards and Technology (NIST) has a statutory responsibility to promote "cooperation with the states in securing uniformity in weights and measures laws and method of inspection" and publishes this and other NIST Handbooks in partial fulfillment of this responsibility.

This 2026 edition includes amendments made through the Committee on Laws and Regulations of the NCWM with technical guidance from the Office of Weights and Measures (OWM) of NIST and input from weights and measures officials and industry representatives. These amendments were adopted by the NCWM at its 110th Annual Meeting in July 2025.

At the 1983 Annual Meeting, the NCWM voted to change the title of Handbook 130 from "Model State Laws and Regulations" was to be changed to "Uniform Laws and Regulations" to reflect that these Laws and Regulations are (a) intended to be standards rather than just guidelines, and (b) intended for adoption by political subdivisions other than states when deemed appropriate. In 1995 the title was changed to Uniform Laws and Regulations in the areas of legal metrology and motor fuel quality. In the 1997 Edition of Handbook 130 was changed from "Uniform Laws and Regulations the words "motor fuel quality" was changed to "engine fuel quality" to reflect changes made to the Uniform Engine Fuels, Petroleum Products, and Automotive Lubricants Law and Regulation. In 2018, the scope of the Fuels regulation was expanded to encompass the changing fuels in the marketplace, and the title to the Handbook was changed to how it appears today.

Keywords

automotive lubricants; fuels; labeling; laws and regulations; measuring; method of sale; NTEP; packaging; price verification; registration of servicepersons; type evaluation; unit pricing; weighing; weighmaster law; weights and measures law.

Author Contributions

John T. McGuire: Data Curation, Writing - Reviewing and Editing; **David A. Sefcik:** Data Curation, Writing – Reviewing; **Loren Minnich:** Reviewing and Editing; **Isabel Chavez Baucom**: Reviewing and Editing; **Katrice A. Lippa**: Supervision.

Acknowledgments

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110th National Council on Weights and Measures

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76	A. Nelson, CT	108	D. Rathbun, IL
77	B. Bloch, CA	109	M. Brooks, AZ
78	F. Clem, OH	110	T. Brewer, WV
79	B. Bloch, CA		

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Table of Contents

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I. Introduction

A. Source

The Uniform Laws and Regulations in this handbook comprise all of those adopted by the National Council on Weights and Measures, Inc. (NCWM) at the 2025 Annual Meeting in July. During that meeting, the members of NCWM voted to adopt a corporate name change. Effective August 13, 2024, the National Conference on Weights and Measures (NCWM) became the National Council on Weights and Measures (NCWM). Every effort has been made to incorporate this name change into the NIST Handbooks and other relevant publications. The name "National Conference on Weights and Measures" still appears in areas of NIST handbooks where the content references the name prior to the change to "National Council on Weights & Measures. For more information, please visit the NCWM History page (**www.ncwm.com/history**).

Contact NCWM at:

9011 South 83rd Street	Phone: (402) 434-4880	E-mail: **info@ncwm.com**
Lincoln, NE 68516	Fax: (402) 434-4878	URL: **www.ncwm.com**

The NCWM is supported by the National Institute of Standards and Technology (NIST), which provides its Executive Secretary and publishes its documents. NIST also develops technical publications for use by weights and measures agencies; these publications may subsequently be endorsed or adopted by the NCWM or its members.

All of the Uniform Laws and Regulations given herein are recommended by NCWM for adoption by states when reviewing or amending their official laws and regulations in the areas covered. A similar recommendation is made with regard to the local jurisdictions within a state in the absence of the promulgation of such laws and regulations at the state level.

(Amended 2015, 2019, and 2024)

B. Purpose

The purpose of these Uniform Laws and Regulations is to achieve, to the maximum extent possible, uniformity in weights and measures laws and regulations among the various states and local jurisdictions in order to facilitate trade between the states, permit fair competition among businesses, and provide uniform and sufficient protection to all consumers in commercial weights and measures practices.

C. Amendments

Proposed amendments to NIST Handbook 130 are deliberated and developed by NCWM's Committee on Laws and Regulations before presentation to the general membership for vote. In some instances, amendments that significantly affect other NIST Handbooks may be processed jointly by two or more committees.

Amendments to the handbooks are made in accordance with NCWM procedures and policies. The process begins at the regional weights and measures association meetings in the fall of each year and it is culminated at the NCWM Annual Meeting in July. After passing through one or more of the regional associations, the proposed amendment is placed on the agenda of the appropriate NCWM committee for consideration at the NCWM's Interim Meeting in January, and after final deliberation and development by the committee, the amendment may be presented to the membership for a vote at the annual NCWM meeting in July. NCWM policy provides for exceptions to the process to accommodate urgent or priority items. NIST staff provides technical assistance and advice throughout the process.

The policy is available on the NCWM website at **www.ncwm.com**. For information on the regional weights and measures associations, visit **www.ncwm.com/meetings**.

(Amended 2015 and 2019)

D. Annual Meeting

1. The Committee will hold a public hearing at the Annual Meeting to discuss items on its agenda.

2. Those who want to speak on an item during the public hearing should request time from the Committee Chairman. The Committee Chairman may impose time limits on presentations, the discussion of a question, or the discussion of a proposed amendment.

E. Final Committee Reports and Conference Action

1. Following the public hearings, the Committee will prepare its final report for action by the voting membership of the Conference. Copies of the final report will be provided to the membership prior to the voting session for that report.

2. The Chairman of the Committee will present the final report of the Committee to the Conference body. A vote will be taken on items, proposals, or sections in the report as circumstances require. The Conference will vote on the entire final report as presented in accordance with the established Council's voting procedures. Parliamentary procedures according to Robert's Rules of Order, as amended by NCWM Bylaws, must be adhered to in the presentation of, and any action on, a Standing Committee report.

   (Amended 1998)

F. Revisions to the Handbook

NIST may not publish a new edition if it determines that it is reasonable to forego an annual publication (e.g., amendments were minor or editorial in nature) to save printing, mailing, and other costs. If this occurs, NIST will issue a notice that the current edition is still valid and will explain its action.

(***NOTE:*** Section numbering may be changed from one edition of the handbook to another to accommodate additions or deletions.)

(Amended 2008)

G. Annotation

Beginning in 1971, amendments or additions to sections in the Uniform Laws and Regulations are delineated at the end of each section (e.g., "amended 1982") as a service to those states that are planning to update their own laws or regulations. The references to each revision and the year will enable legislators and rule makers to study the actual wording and rationale for changes (appearing in the Annual Report of NCWM for that year) and subsequently adopt changes in their own laws and regulations, modeling them after the Uniform Laws and Regulations.

H. Effective Enforcement Dates of Regulations

Unless otherwise specified, the new or amended regulations listed in this section are intended to become effective and subject to enforcement on January 1 of the year following adoption by NCWM.

1. Uniform Packaging and Labeling Regulation

2. Uniform Regulation for the Method of Sale of Commodities

3. Uniform Unit Pricing Regulation

4. Uniform Regulation for the Voluntary Registration of Servicepersons and Service Agencies for Commercial Weighing and Measuring Devices

5. Uniform Regulation for National Type Evaluation

6. Uniform Fuels and Automotive Lubricants Regulation

7. Uniform E-commerce Regulation (effective date of enforcement January 1, 2025)

(Added 1992) (Amended 2021 and 2023)

I. Section References

In most references made to specific sections or subsections in this handbook, the word "Section" is used, followed by the section number.

J. The International System of Units

The "International System of Units," "SI," or "SI Units" means the modernized metric system as established in 1960 by the General Conference on Weights and Measures (CGPM). In 1988, Congress amended the Metric Conversion Act of 1975 (refer to Section 5164 of Public Law 100-418) to declare that it is the policy of the United States to designate the metric system of measurement as the preferred measurement system for U.S. trade and commerce, and it further defined "the metric system of measurement" to be the International System as established by the CGPM and as interpreted or modified for the United States by the Secretary of Commerce. [refer to Metric Conversion Law 15 U.S.C. 205, NIST Special Publication 330 "The International System of Units (SI)"; NIST Special Publication 814 "Metric System of Measurement; and, Interpretation of the International System of Units for the United States" in Federal Register of May 16, 2008, ("Federal Register" Vol. 73, No. 96) or subsequent revisions]. In 1992, Congress amended the Federal Fair Packaging and Labeling Act to require certain consumer commodities to include the appropriate SI units along with the U.S. customary units in their quantity statements.

(Added 1993) (Revised 2008 and 2019)

K. "Mass" and "Weight" [see Section K. NOTE]

The mass of an object is a measure of the object's inertial property, or the amount of matter it contains. The weight of an object is a measure of the force exerted on the object by gravity, or the force needed to support it. The pull of gravity on the earth gives an object a downward acceleration of about 9.8 m/s^2. In trade and commerce and everyday use, the term "weight" is often used as a synonym for "mass." The "net mass" or "net weight" declared on a label indicates that the package contains a specific amount of commodity exclusive of wrapping materials. The use of the term "mass" is predominant throughout the world, and is becoming increasingly common in the United States.

(Added 1993)

Section K. NOTE: When used in this law (or regulation), the term "weight" means "mass." (see paragraphs K. "Mass" and "Weight" and L. Use of the Terms "Mass" and "Weight" in Section I. Introduction of NIST Handbook 130 for an explanation of these terms.)

(Note Added 1993)

L. Use of the Terms "Mass" and "Weight" [see Section K. NOTE]

When used in this handbook, the term "weight" means "mass." The term "weight" appears when U.S. customary units are cited or when both U.S. customary and SI units are included in a requirement. The terms "mass" or "masses" are used when only SI units are cited in a requirement. The following note appears where the term "weight" is first used in a law or regulation.

National Council on Weights and Measures / National Type Evaluation Program

Form 15: Proposal to Amend NIST Handbooks, Guidance Documents, NCWM Bylaws or NCWM Publication 14

Email proposals in Microsoft Word format to info@ncwm.com by August 15.

Each Regional Association will hold hearings on proposals in the fall. See meeting dates at **www.ncwm.com/meetings**. If any region deems that the item has merit, the region will forward the item to NCWM for national consideration. For more information on the Form 15 process, visit **www.ncwm.com/standards-dev**.

GENERAL INFORMATION			
1. Proposal to:			
__ Laws & Regulations __ Specifications & Tolerances __ Professional Development __ Board of Directors __ NTEP Committee			
2. Submitter's Name:		**3. Date:**	
4. Submitter's Organization:		**5. Address:**	
6. City:	**7. State:**	**8. Zip Code:**	**9. Country:**
10. Phone Number:	**11. Fax Number:**	**12. Email Address:**	

PROPOSAL INFORMATION
13. Purpose: Concise statement as to the intent or purpose of this proposal, such as problem being fixed. **(Do not include justification here.)**
14. Document to be Amended:
__ Handbook 44 __Handbook 130 __ Handbook 133 __NCWM Guidance Document __ NCWM Bylaws __ NTEP Administrative Policy
15. Cite portion to be Amended: Submit a separate Form 15 for each code, model law or regulation to be amended.
Section: Paragraph:
16. Proposal: Use ~~**strikeout**~~ to show words to be deleted and **underline** to show new words. **(Do not use track changes.)**
17. For Handbook 44 proposals, indicate one of the following:
☐ **Retroactive** (Enforceable with respect to all devices) ☐ **Nonretroactive** (Enforceable on or after the effective date for devices a) manufactured within a state after the effective date, b) both new and used equipment brought into a state after the effective date, c) used in noncommercial applications which are placed into commercial use after the effective date, ad d) undergoing type evaluation including devices that have been modified to the extent that a new NTEP Certificate of Conformance is required.)
18. Justification: Include national importance, background on the issue, and reference to supporting data or documents.
19. Possible Opposing Argument's: Demonstrate that you are aware and have considered possible opposition.
20. Requested Action if Considered for NCWM Agenda:
__ Voting Item __ Developing Item __ Informational Item __ Other (Please Describe):
21. List of Attachments:

Submit Form via Email to: don.onwiler@ncwm.com Revised: June 2023

9011 South 83rd street / Lincoln, NE 68516
P. 402.434.4880 **W. www.ncwm.com**

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II. Uniformity of Laws and Regulations

A. National Council Goal

The goal of the National Council on Weights and Measures (NCWM) with respect to these Uniform Laws and Regulations is to achieve their acceptance in all states and local jurisdictions that have authority over such matters. The Council stands ready to assist any jurisdiction in any way possible in securing adoption.

B. Status of Promulgation

The following pages list, by state, information regarding the adoption of the Uniform Laws and Regulations. The tabulated data indicates if the state has adopted the Uniform Law or Regulation by reference, including subsequent amendments (thereby operating under the most recent version of the recommended regulation in this handbook), or if the state has used some version of the NCWM recommended law or regulation as guidance in developing a similar law or regulation.

The information is verified with each state annually; the entries represent the status of the state adoption at the time of the survey.

Unless a state adopts the recommended regulations and subsequent amendments and revisions, there may be variation in the actual degree of adoption. Adoption, implementation, and clarification may be determined by comparing a state law with the Uniform Law, section-by-section, or by contacting the state.

(Amended 1997 and 1998)

C. Summary of State Laws and Regulations in Weights and Measures (as of November 1, 2025)

This is an overview of the status of adoption of NCWM standards by the states. In earlier editions of Handbook 130, state laws and regulations were compared to the NCWM standard from the prior year. This did not indicate whether the standard as printed in the current edition had been adopted by any given state. The table lists those states that adopt NCWM-recommended updates automatically ("YES"); see Sections 4 through 9 and paragraph 11.(m) of the Uniform Weights and Measures Law. This means the state's regulations are current with those printed in this edition of the handbook. If a state has adopted an NCWM recommendation in whole or in part from a particular year, but updates are not incorporated automatically, a lower case "yes" is shown. For additional information on the status of adoption, please contact the appropriate state officials.

State	Laws			Regulations									
	Weights and Measures Law	Weighmaster Law or Regulation	Uniform Fuel Law	Packaging and Labeling	Method of Sale	Price Verification	Unit Pricing	Registration of Service Agencies	Type Evaluation	Uniform Fuel Regulation	E-Commerce	Handbook 44	Handbook 133
Alabama	yes	yes	yes	yes	yes	YES	NO	yes	yes	yes*	NO	YES	YES
Alaska	yes	NO	NO	yes	yes	yes	NO	NO	yes	NO	NO	YES	yes
Arizona	yes	yes	yes*	yes	yes	yes	NO	yes	yes	yes*	NO	yes	yes
Arkansas	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES
California	yes*	yes*	yes*	YES	yes*	yes*	NO	yes*	yes*	yes*	NO	YES	YES
Colorado	yes	yes	yes*	yes	yes	yes	NO	yes	yes	yes*	NO	YES	YES
Connecticut	yes	yes	yes*	YES	YES	YES	yes*	yes*	yes	yes	NO	YES	YES
Delaware	yes	yes	yes*	yes	yes	yes	no	yes*	yes	yes*	NO	YES	YES
District of Columbia	yes	yes	yes	yes	yes	yes	yes*	NO	yes	yes	NO	yes	yes
Florida	yes*	NO	yes*	yes	yes	yes	yes	yes	yes	yes*	NO	yes	yes
Georgia	yes	yes	yes*	yes	yes	YES	NO	yes	yes	yes*	NO	YES	YES
Hawaii	yes	yes	yes*	yes	yes	yes	yes	yes	yes	yes*	NO	yes	yes
Idaho	yes	yes	yes*	yes	yes	yes*	no	yes	yes	yes*	NO	YES	yes
Illinois	yes	NO	yes*	YES	YES	NO	NO	yes	yes	yes	NO	YES	YES
Indiana	yes	yes*	yes*	yes	yes	NO	NO	NO	yes	yes*	NO	yes	yes
Iowa	yes	yes*	yes*	yes	yes	YES	yes	yes*	yes	yes*	YES	yes	yes
Kansas	yes*	NO	yes*	yes	yes	yes*	NO	yes*	yes	yes	NO	yes	yes
Kentucky	yes	NO	yes*	yes	yes	yes	NO	yes*	yes	yes*	NO	YES	yes
Louisiana	yes*	yes*	yes*	yes*	NO	YES	NO	yes*	yes*	yes*	NO	YES	no
Maine	yes	yes	yes*	YES	YES	YES	NO	yes	yes	YES	NO	YES	no
Maryland	yes	NO	yes*	yes	yes	yes	yes*	yes*	yes	yes*	NO	YES	yes
Massachusetts	yes*	yes*	yes*	yes	yes*	YES	yes*	NO	yes	yes*	NO	YES	no
Michigan	yes	yes*	yes*	yes	yes	NO	NO	yes	yes	yes*	NO	yes	no
Minnesota	yes	NO	yes*	yes*	yes*	NO	NO	yes*	yes	yes*	NO	yes	yes
Mississippi	yes	yes	yes*	yes	yes	yes	yes	yes	yes	yes*	NO	YES	YES
Missouri	yes	NO	yes	yes	yes	yes	no	yes	yes	yes	NO	yes	yes
Montana	yes	NO	yes	yes	yes	NO	yes	yes	yes	yes	NO	yes	yes
Nebraska	yes	NO	NO	yes	yes	yes*	NO	yes	yes*	NO	NO	yes	yes
Nevada	yes	yes	yes*	YES	YES	YES	YES	YES	YES	yes*	NO	YES	YES
New Hampshire	yes	yes*	NO	yes*	YES	no	yes	yes*	YES	no	NO	YES	no
New Jersey	yes	yes	yes*	YES	YES	yes*	yes*	yes*	yes*	YES	NO	YES	NO
New Mexico	yes	yes	yes*	yes	yes	yes*	NO	yes	no	yes*	no	YES	YES

State	Laws			Regulations									
	Weights and Measures Law	Weighmaster Law or Regulation	Uniform Fuel Law	Packaging and Labeling	Method of Sale	Price Verification	Unit Pricing	Registration of Service Agencies	Type Evaluation	Uniform Fuel Regulation	E-Commerce	Handbook 44	Handbook 133
New York	yes	yes	yes*	yes	yes	yes	yes*	NO	yes	yes*	NO	yes	yes
North Carolina	yes	yes*	yes*	YES	YES	yes	NO	yes	yes	yes*	NO	YES	YES
North Dakota	YES	NO	NO	NO	yes*	NO	NO	yes*	NO	yes*	NO	yes*	NO
Ohio	yes	NO	NO	yes	yes	YES	NO	yes	yes	NO	no	yes	yes
Oklahoma	YES	NO	yes*	YES	YES	yes*	NO	yes*	YES	yes*	NO	YES	YES
Oregon	yes*	NO	yes*	yes	yes	yes	yes*	NO	yes*	yes*	NO	yes	yes
Pennsylvania	yes	yes	NO	yes	yes	yes	NO	yes	YES	NO	NO	YES	YES
Puerto Rico	yes	yes	yes*	yes	yes*	yes*	yes*	yes	yes	yes*	NO	YES	YES
Rhode Island	no	no	yes*	yes*	YES	no	yes*	NO	no	no	NO	YES	no
South Carolina	yes	yes*	yes*	YES	YES	NO	NO	YES	YES	yes*	NO	YES	YES
South Dakota	yes	NO	yes	yes	yes	yes	NO	yes	yes	yes	NO	yes	yes
Tennessee	yes	yes	yes	YES	YES	YES	NO	yes	YES	yes	NO	YES	YES
Texas	yes	yes*	yes*	YES	YES	yes*	NO	yes	NO	yes*	NO	YES	YES
Utah	yes	NO	yes*	YES	YES	YES	NO	yes	YES	yes	NO	YES	YES
Vermont	yes*	yes	yes*	YES	YES	yes	YES	yes	no	NO	NO	YES	yes
Virginia	yes*	yes*	yes*	YES	YES	YES	NO	yes*	YES	YES	NO	YES	YES
Virgin Islands	yes	NO	yes*	yes	NO	NO	yes	NO	NO	yes	NO	YES	no
Washington	yes	yes	yes	YES	YES	YES	NO	yes	YES	yes	NO	YES	YES
West Virginia	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES
Wisconsin	yes*	NO	yes*	yes	yes	yes	NO	yes*	YES	yes*	NO	yes	yes
Wyoming	yes	NO	yes*	yes*	yes*	yes	no	yes	yes	yes*	NO	yes	yes
Totals													
YES	4	0	2	18	18	16	4	4	12	5	1	34	23
yes	39	20	7	29	27	17	6	26	29	11	0	18	21
yes*	9	11	38	5	6	9	9	15	5	30	0	1	0
NO	0	21	6	1	2	8	29	8	3	5	50	0	2
no	1	1	0	0	0	3	4	0	4	2	2	0	7

Key:

YES Adopted and updated on an annual basis.

yes Law or regulation in force, NCWM standard used as basis of adoption, but from an earlier year.

yes* Law or regulations in force, but not based on NCWM standard.

NO No law or regulation.

no No law or regulation, but NCWM standard is used as a guideline.

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III. Uniform Laws

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B. Uniform Regulation for the Method of Sale of Commodities

as adopted by
The National Council on Weights and Measures*

1. Background

The National Council 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.

This Regulation assimilates all of the actions periodically taken by the NCWM 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.

The Conference recognized that some states may only adopt the Method of Sale of Commodities Regulation but have the legal authority in their weights and measures law to also regulate and take enforcement action in the areas of fuels and related products. For this reason, the user will find fuels and related products within this regulation. A brief summary related to the development of regulations on these products can be found in the Background information of the Uniform Fuels and Automotive Lubricants Regulation. Efforts have been made when practical to align both regulations.

(Amended 2021)

2. Status of Promulgation

The table beginning on page 11 shows the status of adoption of the Uniform Regulation for the Method of Sale of Commodities.

*The National Council 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."

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Table of Contents

B. Uniform Regulation for the Method of Sale of Commodities

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.

(Added 1989) (Amended 2019)

Section 1. Food Products [see *Section 1. NOTE 1*]

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 (see ***Section 1. NOTE 2)*** 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 2019)

1.1. Berries and Small Fruits

1.1.1. Definitions. – "Small fruits" includes, but is not limited to cherries, currants, and cherry tomatoes. "Berries" includes all fruit whose names end in the term "berry."

(Added 1991)

Section 1. NOTE 1: Packages subject to this Section and the Federal Fair Packaging and Labeling Act shall be labeled in units of the International System of Units (SI) and U.S. customary systems of measure effective February 14, 1994, [except for seed (see Section 10.10. Packaged Seed) and camera film and recording tape (see Section 11.22. Camera Film, Video Recording Tape, Audio Recording Tape, and Other Image and Audio Recording Media Intended for Retail Sale and Consumer Use), and as specified in the Uniform Packaging and Labeling Regulation under Section 11.32. SI Units, Exemptions - Consumer Commodities]. SI units may appear first.

(Added 1982) (Amended 1990 and 1993)

***Section 1. NOTE 2*:** As defined in NIST Handbook 130, Uniform Weights and Measures Law, Metrological traceability means the property of a measurement result whereby the result can be related to a reference through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty.

(Added 2019)

1.1.2. Methods of Sale. – Berries and small fruits shall be offered and exposed for sale and sold by weight [see ***Section 1.1.2. NOTE***] or by volume. If sold by volume, they must:

(Amended 1991)

(a) be in measure containers that are either open or else covered by uncolored transparent lids or other wrappings that do not obscure the contents, and

(b) have capacities per Section 1.1.2.(b)(1) or Section 1.1.2.(b)(2). When selling berries and small fruits by volume in measure containers, whether or not covered, the measure containers themselves shall not be packages for labeling purposes.

(1) SI Capacities – 250 milliliters, 500 milliliters, or 1 liter.
(Added 1979) (Amended 1985)

(2) U.S. Customary Capacities – 1/2 dry pint, 1 dry pint, or 1 dry quart.

Section 1.1.2. NOTE: When used in this regulation, the term "weight" means "mass." (See paragraphs K. "Mass" and "Weight" in Section I. Introduction of NIST Handbook 130 for an explanation of these terms.)

1.1.3. Marking Requirements for Shipping Containers. – If two or more measure containers are placed in a shipping package, the crate or package shall show the number of measure containers and the quantity of contents of each.
(Added 1971) (Amended 1979, 1985, 1989, and 1991)

1.2. Bread. – Bread kept, offered, or exposed for sale, whether or not packaged or sliced, shall be sold by weight. The wrappers of bread that is sold and expressly represented at the time of sale as "stale bread" shall not be considered packages for labeling purposes.
(Added 1971) (Amended 1979, 1980, 1985, 1987, 1991, and 1992)

1.3. Butter, Oleomargarine, Margarine, Butter-Like, and/or Margarine-Like Spreads. – Shall be offered and exposed for sale and sold by weight. "Butter-like and/or margarine-like spreads" are those products that meet the Federal Standard of Identity for butter or margarine and oleomargarine, except that they contain less than 80 % fat and may contain other safe and suitable ingredients.
(Added 1971) (Amended 1979, 1985, 1986, and 1994)

1.4. Flour, Corn Meal, and Hominy Grits. – Wheat flour, whole wheat flour, graham flour, self-rising wheat flour, phosphated wheat flour, bromated flour, corn flour, corn meal, and hominy grits, whether enriched or not, shall be packaged, kept, offered, or exposed for sale and sold by weight.
(Amended 1994)

1.5. Meat, Poultry, Fish, and Seafood. [see *Section 1.5. NOTE*] – Shall be sold by weight, except that whole shellfish in the shell may be sold by weight, measure, and/or count. Shellfish are aquatic animals having a shell, such as mollusks (for example, scallops) or crustaceans (for example, lobster or shrimp).

(a) When meat, poultry, fish, or seafood is kept, offered or exposed for sale from bulk (e.g., direct service counters) by the portion or piece according to a pre-determined fixed weight, the product identity and net weight shall be displayed, as well as the unit price at which it is offered for sale. This information shall appear on a label or sign immediately adjacent to the meat, poultry, fish, or seafood and must be presented in an easy-to-read type style and color. The font size of the net weight and unit price declaration shall be equal to or greater than the font size used for the product identity.

(b) The unit price required under Sections 1.5.(a) shall be in terms of the unit price per kilogram or unit price per pound and not in common or decimal fractions of the permitted units. A supplemental declaration of a price per unit (i.e., price per ounce) is permitted.

(c) Similar or competing commodities kept, offered, or exposed for sale from bulk in any single display or facility shall have unit prices posted or advertised in the same terms uniformly and consistently expressed (i.e., all in either prices per kilogram or prices per pound; not in differing units) to readily facilitate value comparison.

(Amended 1988 and 2016)

1.5.1. In Combination with Other Foods. – When meat, poultry, fish, or seafood is combined with some other food element to form a distinctive food product, the quantity representation may be in terms of the total weight of the product or combination, and a quantity representation need not be made for each element provided a statement listing the ingredients in order of their predominance by weight must also appear on the label.

NOTE: Also see NCWM Policy, Interpretations, and Guidelines, Section 2.2.13. Declaration of Identity: Consumer Package (UPLR) and Section 1.5.1. In Combination with Other Foods (UMSCR).

(Amended 1989)

1.5.2. Clams, Mussels, Oysters, and Other Mollusks.

1.5.2.1. Whole Clams, Oysters, Mussels, or Other Mollusks in the Shell (fresh or frozen). – Shall be sold by weight (including the weight of the shell, but not including the liquid or ice packed with them), dry measure (e.g., bushel), and/or count. In addition, size designations may be provided.

1.5.2.2. Whole Clams, Oysters, Mussels, or Other Mollusks on the Half Shell (fresh, cooked, smoked, or frozen, with or without sauces or spices added)**.** – Shall be sold by weight (excluding the weight of the shell) or by count. Size designations may also be provided.

(Added 1989)

1.5.2.3. Fresh Oysters Removed from the Shell. – Shall be sold by weight, drained weight, or by fluid volume. For oysters sold by weight or by volume, a maximum of 15 % free liquid by weight is permitted.

(Amended 1991)

1.5.2.4. Processed Clams, Mussels, Oysters, or Other Mollusks on the Half Shell (fresh or frozen). – Shall be sold by net weight excluding the weight of the shell. The term "processed" means removing the meat from the shell and chopping it, or cutting it or commingling it with other solid foods.

(Amended 1989)

1.5.2.5. Canned (heat-processed) Mussels, Clams, Oysters, or Other Mollusks. – Shall be sold by net weight. A maximum of 41 % free liquid by weight is permitted for canned oysters.

(Added 1986 and 1971) (Amended 1982, 1985, 1986, and 1989)

Section 1.5. NOTE: See Section 1.12. Ready-to-Eat Food for additional requirements.

1.6. Fluid Milk Products. – All fluid milk products, including, but not limited to milk, lowfat milk, skim milk, cultured milks, and cream, shall be sold in terms of fluid volume.

(Amended 1995)

1.7. Other Milk Products. – Cottage cheese, cottage cheese products, and other milk products that are solid, semi-solid, viscous, or a mixture of solid and liquid, as defined in the Pasteurized Milk Ordinance of the U.S. Public Health Service, as amended in 1965, shall be sold in terms of weight.

(Amended 1995)

1.7.1. Ice Cream, Ice Pops, and Similar Frozen Novelties. – Ice cream, ice pops, ice milk, frozen yogurt, and similar products shall be kept, offered, or exposed for sale or sold in terms of fluid volume.

(Amended 1995 and 2025)

1.7.2. Pelletized Ice Cream and Similar Pelletized Frozen Desserts. – A semi-solid food product manufactured at very low temperatures using a nitrogen process and consisting of small beads of varying sizes. Bits of inclusions (cookies, candy, etc.) that also vary in size and weight may be mixed with the pellets.

1.7.2.1. Method of Retail Sale. – Packaged pelletized ice cream or similar pelletized frozen desserts shall be kept, offered, or exposed for sale on the basis of net weight.

(Added 2010) (Amended 2011)

1.8. Pickles. – The declaration of net quantity of contents on pickles and pickle products, including relishes but excluding one or two whole pickles in a transparent wrapping, which may be declared by count, shall be expressed in terms of liquid measure. Sales of pickles from bulk may be by count.

(Added 1971)

1.9. Advertising and Price Computing of Bulk Food Commodities.

1.9.1. Total Price Computing. – The price of food commodities sold from bulk by weight shall be computed in terms of whole units of weight (i.e., price per kilogram, pound, gram, ounce, etc.) and not in common or decimal fractions.

(Amended 2016)

1.9.2. Unit Price Advertising. – The unit price of food commodities sold from bulk shall be advertised or displayed in terms of the price per whole units of weight units in kilograms or pounds only, not in common or decimal fractions of a kilogram or pound or in ounces. A supplemental declaration of a price per unit (i.e., price per ounce) is permitted in font size no larger than the whole unit price. This supplemental declaration may be expressed in common or decimal fractions or in ounces.

(Added 1976) (Amended 1985, 1987, 1991, and 2016)

1.9.3. Individual Piece Advertising. – The unit price and net weight of any food commodity offered or exposed for sale from bulk by the portion or piece, according to a pre-determined fixed weight, shall be advertised or displayed to include a declaration of the individual item price, a unit price in terms of kilogram or pound and net weight in terms of kilograms or pounds or decimal fractions, thereof. The font size of the net weight and the unit price declaration shall be equal to or greater than the font size used for the product identity.

(Added 2016)

NOTE: For specific requirements on Meat, Poultry, Fish and Seafood refer to Section 1.5. Meat, Poultry, Fish, and Seafood.

(Added 2016)

1.10. Generic Terms for Meat Cuts. – A declaration of identity for meat cuts shall be limited to generic terms, such as those listed in the Uniform Retail Meat Identity Standards.

The following abbreviations may be used:

Abbreviation	Identity
BAR B Q	Barbecue
BI	Bone In
BNLS	Boneless
DBLE	Double
LGE	Large
N.Y. (NY)	New York
PK	Pork
POT-RST	Pot Roast
RND	Round

Abbreviation	Identity
RST	Roast
SHLDR	Shoulder
SQ	Square
STK	Steak
TRMD	Trimmed

(Added 1976)

1.11. Sale of Meat by Carcass, Side, or Primal Cut. – The seller of a carcass, side, quarter, or primal cut on a gross or hanging weight basis shall provide to the buyer a written statement giving the following information at the times indicated:

(Amended 1985)

1.11.1. Prior to Delivery.

(a) the name and address of the seller (firm);

(b) the date of the contract;

(c) the name and address of the buyer;

(d) the total net weight (hanging weight) of the carcass, side, or primal cut prior to cutting or processing;

(e) the USDA quality grade and yield grade of the meat to be supplied, if so represented;

(f) the price per pound for each species (not including any inducements) and the total price of the sale order;

(g) the estimated cutting loss on the order in terms of percentage and weight (e.g., 40 %, 72.5 kg [160 lb]);

(h) a list by name and estimated count of each cut to be derived from each primal source;

(i) additional costs, listed separately, for cutting, wrapping, freezing, and finance charges, if any; and

(j) that the buyer may keep the cutting loss.

(Added 1985)

1.11.2. At the Time of Delivery.

(a) the name and address of the buyer and seller;

(b) the date of delivery;

(c) the total net weight of the meat delivered;

(d) a list, by name and count, of each cut derived from each primal cut; and

(e) a separate indication of the quantity of any meat or other commodity(s) received by the purchaser as an inducement in connection with the purchase of the carcass, side, or primal cut.

(Added 1985)

1.11.3. Exemptions. – This subsection shall not apply to the sale of any carcass, side, quarter, or primal cut of meat that individually or collectively has a gross or hanging weight of 22.6 kg (50 lb) or less.
(Added 1985)

1.11.4. Right of Cancellation. – The buyer shall have the right to cancel any carcass, side, quarter, or primal cut meat contract until midnight of the third business day after the day on which the buyer executed the contract or after the day on which the seller provided the buyer with a fully executed copy of the contract, whichever is later.
(Added 1985 and 1977) (Amended 1980 and 1985)

1.12. Ready-to-Eat Food.

1.12.1. Definition. – Restaurant style food offered or exposed for sale, whether in restaurants, supermarkets, or similar food service establishments that is ready for immediate human consumption, though not necessarily on the premises where sold, and which does not require any cooking or heating preparation by the customer. Ready-to-eat food does not include sliced luncheon products, such as meat, poultry, or cheese when sold separately.

Some examples of ready-to-eat food items: (This list is not intended to be all inclusive.)

- servings of pasta, potato, or coleslaw;
- servings of salads, vegetables, or grains such as rice;
- pizzas, whole or sliced;
- meat/vegetable pockets/pies;
- tacos, fajitas, enchiladas, tostadas;
- cooked, whole chickens or turkeys;
- buckets, tubs, or individual pieces of cooked chicken or fish;
- cooked ribs by the slab or piece;
- stuffed clams, oysters, shrimp, and fish;
- cooked shrimp or crab cakes;
- slices of cake, pie, or quiche;
- donuts, bagels, or rolls for individual sale;
- cookies or brownies for individual sale;
- sandwiches, eggs, or spring rolls;
- servings of prepared chili or soup;
- stuffed peppers, tomatoes, and cabbage;
- knishes; and
- pickles.

NOTE: The sale of an individual piece of fresh fruit (like an apple, banana, or orange) is allowed by count.
(Added 2004) (Amended 2017)

1.12.2. Methods of Sale. – Ready-to-eat food sold from retail cases displaying product in bulk or in servings prepared on the premises may be sold by weight, measure, or count (i.e., by piece, portion, or serving). If pre-packaged, the product shall have the appropriate statement of quantity set forth in the current edition of NIST Handbook 130, Uniform Packaging and Labeling Regulation (UPLR).
(Amended 1993) (Amended 2017 and 2023)

1.13. Home Food Service Plan Sales.

1.13.1. Definitions.

As used in this section, the following words and phrases shall have the following meanings:

(a) **Home Food Service Plan.** – The offering for sale to a consumer, in the consumer's home, any food item, or food item in combination with any nonfood item and/or services, whether or not a membership fee or similar charge is involved.

(b) **Seller.** – Any person, partnership, corporation, or association, however organized, engaged in the sale of a home food service plan.

(c) **Buyer.** – Both the actual and prospective purchaser, but does not include persons purchasing for resale.

(d) **Contract.** – All of the collective written agreements subscribed by a buyer at the time of sale relating to the purchase of a home food service plan, except promissory notes or other financing agreements.

(e) **Food Item.** – Each edible product sold as part of a home food service plan, including, but not limited to, each constituent part or kind of meat cut from a primal source, each kind of whole poultry or poultry part, seafood products, and other like products.

(f) **Nonfood Item.** – Each inedible product sold as part of a home food service plan, including, but not limited to, paper products, health and beauty products, detergents, cleaners and disinfectants, rolls of wrapping, and like products. The term does not include food items and durable consumer goods such as appliances.

(g) **Unit Price.** – The price of a food or nonfood item sold as part of a home food service plan, computed to the nearest tenth of 1 cent when less than 1 dollar, and to the nearest cent when 1 dollar or more. The unit price, exclusive of any service charge(s), shall be expressed in terms of the price per unit of weight, measure, or count set forth in the "Uniform Unit Pricing Regulation" in the current edition of NIST Handbook 130.

(h) **Service Charge.** – The total price for any additional features, services, and processing associated with the purchase of a home food service plan, whether stated in terms of membership fees or otherwise.

(i) **Primal Source.** – Refers to the following cuts:

(1) for beef, the primal sources are the round, flank, loin, rib, plate, brisket, chuck, and shank;

(2) for veal and lamb or mutton, the primal sources are the leg, flank, loin, rack (rib), and shoulder; and

(3) for pork, the primal sources are the belly, loin, ham, spareribs, shoulder, and jowl.

1.13.2. Contract and Disclosure Requirements.

1.13.2.1. At the Time of Sale.

(a) At the time of sale, the Seller shall provide the Buyer with a single document, referred to in this subsection as the "written agreement," which shall clearly and conspicuously disclose the following:

(1) the name, address, and telephone number of the Seller and the name and address of the Buyer;

(2) the date of the contract;

(3) the price of the food and nonfood items of the home food service plan;

(4) the service charge or the price of any service charges associated with the home food service plan;

(5) the total price of the home food service plan, including the price of the food and nonfood items, and the price of any service charge; and

(6) a statement that the Buyer shall have the right to cancel the home food service plan contract until midnight of the third business day after the date on which the Buyer executed the contract or after the day on which the Seller provided the Buyer with a fully executed copy of the contract, whichever is later, by giving written notice of cancellation to the Seller. Compliance with requirements of federal statutes, rules, or regulations governing form of notice of right of cancellation shall be deemed satisfactory notice of the requirements of this regulation.

(b) In addition to the above disclosures required in the written agreement, the following disclosures are required to be given to the Buyer at the time of sale:

(1) A written list of all food and nonfood items to be sold, which shall include:

i. the identity of each unit and, where applicable, the USDA quality grade of the item, if so graded; the primal source; and the brand or trade name;

ii. the quantity of each item sold;

iii. the estimated serving size by net weight of each piece of meat, poultry, and seafood item offered for sale under the home food service plan, provided, however, that such estimates shall not differ from the actual weight at the time of delivery by more than 5 % and the dollar value of the meat, poultry, and seafood items delivered is equal to or greater than that represented to the Buyer; and

iv. the net weight, measure, or count of all other food and nonfood items offered for sale.

(2) A current unit price list stating in dollars and cents the price per kilogram or pound or other appropriate unit of measure, and the total sale price of each item to be delivered. This price list shall clearly and conspicuously make reference to the fact of whether there are additional costs disclosed in the written agreement relating to any "service charges" associated with the purchase of the home food service plan.

(3) If a membership is sold, a written statement of all terms, conditions, benefits, and privileges applicable to the membership.

(4) If a service charge is included, a written statement specifically identifying the service(s) provided and the price(s) charged for them.

1.13.2.2. At the Time of Delivery.

(a) At the time of delivery, the Seller shall provide a receipt, for signature by the Buyer, disclosing the following information:

(1) the identity of the item and the net quantity of the contents in terms of either weight, measure, or count, as required by applicable law. The net weight of each food item delivered shall be within the limit specified in Section 1.13.2.1.b(i)(iii) Contract and Disclosure Requirements; and

(2) the unit price and total sales price of each food and nonfood item. The unit price shall be the same as that specified on the unit price list given to the Buyer at the time of sale.

1.13.3. Advertisement of Home Food Service Plans. – Any advertisement of a home food service plan which discloses item pricing information in accordance with the provisions of this section shall set forth, in a clear and conspicuous manner, whether there are any service charges or other additional costs associated with the purchase of the home food service plan.

(Added 1992)

1.14. *Cannabis* and *Cannabis*-Containing Products. – *Cannabis* is a genus of flowering plants in the family Cannabaceae, of which *Cannabis sativa, indica, ruderalis* are species and any hybridization thereof. This definition includes products that contain 0.3 percent or less of Total Delta-9 Tetrahydrocannabinol THC (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as cannabis, marijuana, or marihuana).

1.14.1. Unit.

(a) Volume – Products offered for sale in liquid form shall be sold by volume.

(b) Weight – Products offered for sale in non-liquid form shall be sold by weight. These products may also have a supplemental declaration of count or measure.

1.14.2. Sale from Bulk.

(a) When sold from bulk, all sales shall be based on net weight or net volume.

(b) When liquids are offered for sale from bulk, the reference temperature for measurement shall be 20 °C (68 °F). Products shall be delivered at a temperature within ± 2 °C (5 °F). Artificially heating liquids to temperatures higher than the specified limits is prohibited.

1.14.3. Water Activity. – When unprocessed *Cannabis* is kept, offered, or exposed for sale, sold, bartered, or exchanged, or ownership transfers, the water activity shall be 0.60 (± 0.05) in accordance with latest version of ASTM D8197, Standard Specification for Maintaining Acceptable Water Activity (aw) Range (0.55 to 0.65) for Dry Cannabis Flower Intended for Human/Animal Use.

The procedure for determining the water activity in *Cannabis* flower can be found in the latest version of ASTM D8196 Standard Practice for Determination of Water Activity (aw) in Cannabis Flower.

(Added 2023)

Section 2. Non-Food Products [see *Section 1.1. NOTE*]

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 (see *Section 1.1. NOTE)* 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 2019)

2.1. Advertising and Price Computing of Bulk Commodities. – The price of bulk commodities or commodities not in package form and sold by weight shall be advertised, displayed, and computed in terms of whole units of weight (i.e., grams, kilograms, pounds, ounces, etc.), and not in common or decimal fractions.
(Added 1989)

2.2. Fence Wire Products. – Rolls of fence wire products shall be sold by:

(a) Gauge of wire.

(b) Height in terms of inches or centimeters, if applicable.

(c) Length in terms of rods, meters, or feet.
(Added 1979)

2.3. Coatings. – Asphalt paints, coatings, and plastics shall be sold in terms of liquid measure.
(Added 1971)

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

2.4.1. Definitions.

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

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

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

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

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

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

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

(1) liters, including fractions or multiples of the liter. A net quantity of contents declaration, may also include a quantity in units of cubic foot or fractions or multiples of a cubic foot (i.e., cubic feet).
(Amended 2010, 2016, and 2022)

(b) **Artificial compressed or processed products.** – Logs, bricks, or other shaped products greater than 15 cm (6 in) in any dimension shall be sold by weight plus count.
(Amended 2022)

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

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

(1) liters, including fractions or multiples of the liter. A net quantity of contents declaration may also include quantity in units of cubic foot or fractions or multiples of a cubic foot (i.e., cubic feet).
(Added 1998) (Amended 2010, 2016, and 2022)

NOTE: In determining the appropriate Method of Sale, a clear distinction must be made as to whether the wood is being sold primarily as fuel (some wood is sold as fuel but flavoring is a byproduct) or strictly as a wood flavoring.
(Note Added 2010)
(Amended 1976, 1991, 1998, 2010, 2016, and 2022)

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

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

(a) the name and address of the vendor;

(b) the name and address of the purchaser;

(c) the date delivered;

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

(e) the price of the amount delivered; and

(f) the identity, in the most descriptive terms commercially practicable, including any quality representation made in connection with the sale.
(Added 1975)

2.5. Peat and Peat Moss. – Applies only with respect to organic matter of geological origin, excluding coal and lignite, originating principally from dead vegetative remains through the agency of water in the absence of air and occurring in a bog, swampland, or marsh, and containing an ash content not exceeding 25 % on a dry weight basis [dried in an oven at 105 °C (221 °F) until no further weight loss can be determined].

2.5.1. Declaration of Quantity. – The declaration of quantity of peat and peat moss shall be expressed in terms of weight units or in cubic measure units.

2.5.2. Units.

2.5.2.1. Weight. – Peat and peat moss sold in terms of weight shall be offered and exposed for sale only in kilograms and/or pounds.

2.5.2.2. Cubic Measure. – Peat and peat moss sold in terms of cubic measure shall be offered and exposed for sale only in liters and/or cubic feet. If the commodity is labeled in terms of compressed cubic measurement, the quantity declaration shall represent the quantity in the compressed state.

(Added 1971) (Amended 1975, 1979, 1983, and 1997)

2.6. Prefabricated Utility Buildings. – Shall be offered for retail sale on the basis of usable inside space as follows:

(a) length, measured from inside surface of wall panels at the base;

(b) width, measured from inside surface of wall panels at the base;

(c) height, measured from the base to the top of the shortest wall panel.

Inside dimensions in SI units shall be declared to the nearest 0.01 meter; inside dimensions in U.S. customary units shall be declared to the nearest inch.

If total usable inside space is declared in a supplemental declaration, it shall be to the nearest cubic decimeter or cubic foot.

(Added 1975)

2.7. Roofing and Roofing Material. – Shall be sold by the square meter only if sold in SI units, by the square, or by the square foot only if sold in U.S. customary units.

(Amended 1979)

2.7.1. Definitions.

2.7.1.1. Square Meter. – The quantity of roofing or roofing material that, when applied according to the directions or instructions of the manufacturer, will cover one square meter exclusive of side laps or side joints.

(Added 1979)

2.7.1.2. Square. – The quantity of roofing or roofing material that, when applied according to directions or instructions of the manufacturer, will cover an area of 100 ft^2 exclusive of side laps or side joints, provided, in the case of roofing or roofing material of corrugated design, the side lap or side joint shall be one full corrugation.

2.7.1.3. Square Foot. – The quantity of roofing or roofing material that, when applied according to the directions or instructions of the manufacturer, will cover 1 ft^2 (144 in^2) exclusive of side laps or side joints.

2.7.2. Declaration of Quantity. – When the declaration of quantity on a package of roofing or roofing material contains the term "square," it shall include, plainly and conspicuously, a numerical definition of the term "square."

Example:
"One square covers 100 ft^2 of roof area."

2.7.2.1. Common Fractions. – The use of the common fraction one-third (1/3) is specifically authorized in the quantity statement of a package of roofing or roofing material when, and only when, used as the common fraction of the "square."

2.7.2.2. Quantity Statement. – The primary declaration if in U.S. customary units shall only be in terms of squares or square feet, and if in metric units shall only be in terms of square meters. There is no prohibition against the use of supplementary quantity declarations, such as shingle dimensions, but in no case shall the

weight of the material be stated or implied. However, the use of numerical descriptions for rolls of felt roofing material may continue to be used.
(Added 1971) (Amended 1979)

2.8. Sealants. – Caulking compounds, glazing compounds, and putty shall be sold in terms of liquid measure, except that rope caulk shall be sold by weight.
(Added 1971) (Amended 1981)

2.9. Sod and Turf.

2.9.1. Application. – For the purpose of this regulation, this section shall apply to all sod, including turf sod, turf plugs, and turf sprigs.

2.9.2. Definitions.

2.9.2.1. Sod. – Shall mean "turf sod," "turf plugs," or "turf sprigs" of a single kind or variety or a mixture of kinds and varieties.

2.9.2.2. Turf. – The live population of one or more kinds of grasses, legumes, or other plant species used for lawns, recreational use, soil erosion control, or other such purposes.

2.9.2.3. Turf plug. – A small section cut from live turf of those kinds of turf normally vegetatively propagated (such as zoysia grass) that when severed contain sufficient plant material to remain intact.

2.9.2.4. Turf sod. – A strip or section of live turf that when severed contains sufficient plant material to remain intact.

2.9.2.5. Turf sprig. – A live plant, stolon, crown, or section cut from stolonifera plants used as turf.

2.9.3. Quantity. – Sod shall be advertised, offered for sale, and sold by measure or by a combination of count and measure as prescribed by this subsection.

2.9.3.1. Turf sod. – Turf sod shall be advertised for sale and sold in terms of the square meter, square foot, or square yard, as appropriate.
(Amended 1979)

2.9.3.2. Turf plugs. – Turf plugs shall be advertised for sale and sold in terms of count, combined with a statement of the plug diameter.

2.9.3.3. Turf sprigs. – Turf sprigs shall be advertised for sale and sold in terms of the liter or bushel.
(Added 1976) (Amended 1979)

2.10. Softwood Lumber. – Applies to softwood boards, timbers, and dimension lumber that have been surfaced; to other products set forth in the latest version of the U.S. Department of Commerce, Voluntary Product Standard PS 20-20, "American Softwood Lumber Standard," Tables 1 through 4; but shall not apply to rough lumber or lumber (other than products in the tables) remanufactured or joined so as to have changed the form or identity, such as individually assembled or packaged millwork items. "Nominal sizes" are customary dimensions to describe approximate, rather than actual, sizes of lumber. "Nominal sizes" were originally derived from the dimensions of rough lumber before surfacing and are always greater than the actual or minimum dressed dimensions; thus, a dry "2 × 4" is surfaced to the actual dimensions of 1 1/2 in × 3 1/2 in (38 mm × 89 mm). The requirements in Section 2.10.1. Definitions refer to actual sizes of lumber. Examples of nominal sizes and minimum dressed sizes for board and dimension lumber are shown in Table 1. Softwood Lumber Sizes. A complete listing of nominal size categories is available in the latest version of PS 20-20, "American Softwood Standard" in Tables 1 through 4.
(Amended 2016)

2.10.1. Definitions.

2.10.1.1. Dressed Lumber. – Lumber that has been surfaced by a machine (to attain smoothness of surface and uniformity of size) on one side (S1S), on two sides (S2S), one edge (S1E), two edges (S2E), or a combination of sides and edges (S1S1E, S1S2E, S2S1E, S4S).

(Amended 2016)

2.10.1.2. Boards. – Lumber 38 mm (1 1/2 in) or less in actual thickness and 38 mm (1 1/2 in) or more in actual width. Lumber less than 140 mm (5 1/2 in) in actual width may be classified as strips.

(Amended 2016)

2.10.1.3. Timbers. – Lumber 114 mm (4 1/2 in) or more in smallest dimension. Timbers may be designated as beams, stringers, posts, caps, sills, girders, or purlins.

2.10.1.4. Dimension Lumber. – Lumber from 38 mm (1 1/2 in) to, but not including, 114 mm (4 1/2 in) in actual thickness, and 38 mm (1 1/2 in) or more in actual width. Dimension lumber may be designated as framing, joists, planks, rafters, or studs.

2.10.1.5. Rough Lumber. – Lumber that has not been dressed, but that has been sawed, edged, and trimmed at least to the extent of showing saw marks, or other primary manufacturing marks in the wood, on the four longitudinal surfaces of each piece for its overall length.

(Amended 2016)

2.10.1.6. Matched Lumber. – Lumber that has been worked with a tongue on one edge of each piece and a groove on the opposite edge to provide a close tongue and groove joint by fitting two pieces together; when end-matched, the tongue and groove are worked in the ends also.

2.10.1.7. Patterned Lumber. – Lumber that is shaped to a pattern or a molded form, in addition to being dressed, matched, or shiplapped, or any combination of these workings.

2.10.1.8. Shiplapped Lumber. – Lumber that has been worked or rabbeted on both edges of each piece to provide a closelapped joint by fitting two pieces together.

2.10.1.9. Grade. – The commercial designation assigned to lumber meeting specifications established by a nationally recognized grade rule writing organization.

2.10.1.10. Species. – The commercial name assigned to a species of trees.

2.10.1.11. Species Group. – The commercial name assigned to two or more individual species having similar characteristics.

2.10.1.12. Representation. – A "representation" shall be construed to mean any advertisement, offering, invoice, or the like that pertains to the sale of lumber.

2.10.1.13. Minimum Dressed Sizes (width and thickness). – The standardized width and thickness at which lumber is dressed when manufactured in accordance with the latest edition of U.S. Department of Commerce Voluntary Product Standard PS 20-20, "American Softwood Lumber Standard," and regional grading rules conforming to the latest version of PS 20-20. (See Table 1. Softwood Lumber Sizes containing examples of some minimum dressed sizes.)

(Amended 2016)

2.10.2. Identity. – Representations shall include a declaration of identity that specifies the grade or grades, species or species group, and whether the lumber is unseasoned (green) or dry.

2.10.3. Quantity. – Representations shall be in terms of:

(a) the number of pieces;

(b) the minimum dressed width and thickness or actual width and thickness, except that the use of nominal dimensions shall be allowed as long as:

(1) the term “nominal” or “nom” is also used; and

(2) the actual or minimum dressed sizes are prominently displayed to the customer either by means of a table or label.

(c) either the length of individual pieces or the lineal footage.

(Amended 2016)

Table 1. Softwood Lumber Sizes

Examples of the minimum dressed sizes at the time of manufacture for both unseasoned (green) and dry lumber in the latest version of the U.S. Department of Commerce, Voluntary Product Standard PS 20-20.

Product Classification (Nominal Size)	Minimum Dressed Sizes**			
	Unseasoned		Dry	
Inches	Inches	Millimeters	Inches	Millimeters
Board Lumber				
1 × 2	$^{25}/_{32} \times 1^{9}/_{16}$	20 × 40	$^{3}/_{4} \times 1^{1}/_{2}$	19 × 38
1 × 3	$^{25}/_{32} \times 2^{9}/_{16}$	20 × 65	$^{3}/_{4} \times 2^{1}/_{2}$	19 × 64
1 × 4	$^{25}/_{32} \times 3^{9}/_{16}$	20 × 90	$^{3}/_{4} \times 3^{1}/_{2}$	19 × 89
1 × 6	$^{25}/_{32} \times 5^{5}/_{8}$	20 × 143	$^{3}/_{4} \times 5^{1}/_{2}$	19 × 140
1 × 8	$^{25}/_{32} \times 7^{1}/_{2}$	20 × 190	$^{3}/_{4} \times 7^{1}/_{4}$	19 × 184
1 × 10	$^{25}/_{32} \times 9^{1}/_{2}$	20 × 241	$^{3}/_{4} \times 9^{1}/_{4}$	19 × 235
1 × 12	$^{25}/_{32} \times 11^{1}/_{2}$	20 × 292	$^{3}/_{4} \times 11^{1}/_{4}$	19 × 286
Surfaced Lumber*				
2 × 2	$1^{9}/_{16} \times 1^{9}/_{16}$	40 × 40	$1^{1}/_{2} \times 1^{1}/_{2}$	38 × 38
$2 \times 2^{1}/_{2}$	$1^{9}/_{16} \times 2^{1}/_{16}$	40 × 52	$1^{1}/_{2} \times 2$	38 × 51
2 × 3	$1^{9}/_{16} \times 2^{9}/_{16}$	40 × 65	$1^{1}/_{2} \times 2^{1}/_{2}$	38 × 64
2 × 4	$1^{9}/_{16} \times 3^{9}/_{16}$	40 × 90	$1^{1}/_{2} \times 3^{1}/_{2}$	38 × 89
2 × 6	$1^{9}/_{16} \times 5^{5}/_{8}$	40 × 143	$1^{1}/_{2} \times 5^{1}/_{2}$	38 × 140
2 × 8	$1^{9}/_{16} \times 7^{1}/_{2}$	40 × 190	$1^{1}/_{2} \times 7^{1}/_{4}$	38 × 184
2 × 10	$1^{9}/_{16} \times 9^{1}/_{2}$	40 × 241	$1^{1}/_{2} \times 9^{1}/_{4}$	38 × 235
2 × 12	$1^{9}/_{16} \times 11^{1}/_{2}$	40 × 292	$1^{1}/_{2} \times 11^{1}/_{4}$	38 × 286

*The dry thicknesses of nominal 3 in and 4 in lumber are 2 1/2 in (64 mm) and 3 1/2 in (89 mm); unseasoned thicknesses are 2 9/16 in (65 mm) and 3 9/16 (90 mm). Widths for these thicknesses are the same as shown above.

**PS 20-20 defines dry lumber as being 19 % or less in moisture content and unseasoned lumber as being over 19 % moisture content. The size of lumber changes approximately 1 % for each 4 % change in moisture content. Lumber stabilizes at approximately 15 % moisture content under normal use conditions.

(Added 1971) (Amended 1990, 1993, and 2016)

2.11. Carpet. – Anyone who sells carpet shall provide the purchaser with written statements at the time of sale giving the following information:

(a) The name and address of the manufacturer.

(b) The style name and roll number of the carpet.

(c) The generic name of the fiber and the type of backing material.

(d) The amount delivered (exact size shipped).

(e) The price per square meter if sold in SI units, or the price per square foot if sold in U.S. customary units, and the total price.

(Added 1977) (Amended 1979 and 1999)

2.12. Hardwood Lumber - Retail Sales. – The requirements of this section apply to retail sales of hardwood lumber, but not too hardwood flooring, molding, or other pre-formed products.

2.12.1. Definitions.

2.12.1.1. Board Foot. – The U.S. customary unit of volume measurement for hardwood lumber. A board foot is the volume of a board 1 ft long, 1 ft wide, and 1 in thick or its equivalent (144 in^3 of wood).

2.12.1.2. Surfaced Lumber. – Lumber that has been surfaced for the purpose of attaining smoothness of surface and uniformity of size.

2.12.1.3. Kiln Drying. – A specialized process used to minimize dimensional changes in service. Hardwood lumber used for most products must have moisture removed by placing it in a drying kiln with controlled humidity and heat for a period of time determined by the initial and the final moisture content, the species, and the thickness.

2.12.1.4. Surface Measure. – A rounded area measurement for hardwood lumber. The surface measure shall be determined by multiplying the full width of the piece in inches and fractions by the standard length (see Section 2.12.1.7. Standard Lengths) in feet, dividing by 12, and rounding up or down to the nearest whole square foot. (Fractions less than or equal to one-half square foot are rounded down and those greater than one-half square foot are rounded up.)

2.12.1.5. Species. – The commercial name assigned to a species of trees.

2.12.1.6. Species Group. – The commercial name assigned to two or more individual species having similar characteristics.

2.12.1.7. Standard Lengths. – 4 ft, 5 ft, 6 ft, 7 ft, 8 ft, 9 ft, 10 ft, 11 ft, 12 ft, 13 ft, 14 ft, 15 ft, or 16 feet. Fractional lengths are rounded down to the next lower standard length (for example, if a board is 6 ft 8 in long, its length is rounded down to 6 ft).

2.12.1.8. Stock Widths. – Special items manufactured to predetermined widths, normally for retail sale.

2.12.2. Identity. – Representations shall include a declaration of identity that specifies the species or species group.

2.12.3. Surfaced (S4S) Lumber Manufactured to Stock Widths.

2.12.3.1. Quantity. – Representations shall be in terms of one of the following:

(a) by linear measure when surfaced width and thickness are stated; or

(b) by count when length and surfaced width and thickness are stated; or

(c) by surface measure (square feet) when a thickness is stated.

2.12.3.2. Representations. – The use of nominal dimensions shall be allowed if the table of Minimum Surfaced Sizes for Kiln Dried Hardwood Lumber or the actual dimensions are prominently displayed to the

customer, and the term "nominal" or "nom" is used in conjunction with any representation of nominal dimensions.

2.12.3.3. Minimum surfaced sizes for Kiln Dried Lumber (width and thickness). – Table 2. Minimum Surfaced Sizes for Kiln Dried Hardwood Lumber shows the minimum sizes for the stock widths listed. This table includes dimensions for thicknesses of 1 in and 2 in thick stock lumber. Hardwood lumber is also manufactured in thicknesses of 1 1/4 in (1 in surfaced) and 1 1/2 in (1 3/16 in surfaced). For other thicknesses, use the nominal and minimum widths from the table. For example: a board with the nominal dimensions of 1 1/4 in × 4 in would have minimum thickness of 1 in and minimum width of 3 1/2 in.

Table 2. Minimum Surfaced Sizes for Kiln Dried Hardwood Lumber

SI Units for Thickness and Width	Thickness and Width in Inches	
Minimum Sizes in Millimeters	**Nominal Sizes**	**Minimum Sizes**
38 × 89	2 × 4	$1^1/_2 \times 3^1/_2$
38 × 140	2 × 6	$1^1/_2 \times 5^1/_2$
38 × 184	2 × 8	$1^1/_2 \times 7^1/_4$
38 × 235	2 × 10	$1^1/_2 \times 9^1/_4$
38 × 286	2 × 12	$1^1/_2 \times 11^1/_4$
19 × 19	1 × 1	$^3/_4 \times ^3/_4$
19 × 38	1 × 2	$^3/_4 \times 1^1/_2$
19 × 63	1 × 3	$^3/_4 \times 2^1/_2$
19 × 89	1 × 4	$^3/_4 \times 3^1/_2$
19 × 140	1 × 6	$^3/_4 \times 5^1/_2$
19 × 184	1 × 8	$^3/_4 \times 7^1/_4$
19 × 235	1 × 10	$^3/_4 \times 9^1/_4$
19 × 286	1 × 12	$^3/_4 \times 11^1/_4$
The dry thickness of nominal 1 1/2 in lumber is 1 3/16 in. The dry thickness of nominal 1 1/4 in lumber is 1 in. Sizes are shown in inches and millimeters. Minimum sizes in millimeters are calculated by multiplying the size in inches by 25.4 and rounding to the nearest millimeter. The rule for rounding is: round up for numbers greater than 0.50 mm and round down for numbers less than or equal to 0.50 mm. In case of a dispute on size measurements, the inch measurement takes precedence. Nominal and minimum widths for these thicknesses are shown above. The SI equivalents for 1 in and 1 3/16 in lumber are 25.4 mm and 30.1 mm, respectively.		

2.12.4. Random Width Lumber.

2.12.4.1. Sales of Random Width Hardwood Lumber. – Sales of random width hardware lumber measured after kiln drying shall be quoted, invoiced, and delivered on the basis of net board footage with no addition of footage for kiln drying shrinkage or surfacing. Sales of hardwood lumber measured and sold prior to kiln drying or surfacing shall be quoted, invoiced, and delivered on the basis of net board footage before kiln drying or surfacing. If the lumber is to be kiln dried or surfaced at the request of the purchaser, the kiln drying or surfacing charge shall be clearly shown and identified on the quotation and invoice.

(Amended 1993)

2.13. Polyethylene Products.

2.13.1. Consumer and Non-Consumer Products. – Offered and exposed for sale shall be sold in the terms given in Section 2.13.1.1. Sheeting and Film.

2.13.1.1. Sheeting and Film. – Consumer products shall include quantity statements in both SI and U.S. customary units.

Consumer products:

(a) length and width (in SI and U.S. customary units)

(b) area (in square meters and square feet)

(c) thickness (in micrometers and mils*

(d) weight (in SI and U.S. customary units)

Non-Consumer Products:

(a) length and width (in SI or U.S. customary units)

(b) area (in square meters or square feet)

(c) thickness (in micrometers or mils*

(d) weight (in SI or U.S. customary units)
(Added 1982) (Amended 1979, 1993, and 1998)

(1 mil = 0.001 in = 25.4 micrometers (µm). 1 micrometer = 0.000 039 37 in.)*
(Amended 1993)

2.13.2. Consumer Products. – At retail shall be sold in the terms given in Section 2.13.2.1. Food Wrap, Section 2.13.2.2. Lawn and Trash Bags, and Section 2.13.2.3. Food and Sandwich Bags.

2.13.2.1. Food Wrap.

(a) length and width

(b) area in square meters and square feet
(Amended 1979)

2.13.2.2. Lawn and Trash Bags.

(a) count

(b) dimensions

(c) thickness in micrometers and mils
(Amended 1993)

(d) capacity [see ***Section 2.13.2. NOTE***]

2.13.2.3. Food and Sandwich Bags. – The capacity statement does not apply to fold-over sandwich bags.

(a) count

(b) dimensions

(c) capacity [see ***Section 2.13.2. NOTE***]

Section 2.13.2. NOTE: See Section 10.8.2. Capacity of the Uniform Packaging and Labeling Regulation.

2.13.3. Non-Consumer Products. – Shall be offered and exposed for sale in the terms given in Section 2.13.3.1. Bags. (Package shall be labeled in SI or U.S. customary units and may include both units.)
(Amended 1998)

2.13.3.1. Bags.

(a) count

(b) dimensions

(c) thickness in micrometers or mils

(d) weight

(e) capacity [see ***Section 2.13.2. NOTE***]

2.13.4. Declaration of Weight. – The labeled statement of weight for polyethylene sheeting and film products under Sections 2.13.1.1. Sheeting and Film, and 2.13.3.1. Bags, shall be equal to or greater than the weight calculated by using the formula below.

(a) For values, less than 453.6 kg (1000 lb), the final value shall be calculated to at least four digits and declared to three digits, truncating the final digits as calculated (e.g., a calculated value of 943.1 g (2.079 lb) is truncated to 943 g (2.07 lb), a calculated value of 14.92 kg (32.89 lb) is truncated to 14.9 kg (32.8 lb), a calculated value of 124.4 kg (274.2 lb) is truncated to 124 kg (274 lb).
(Added 2018)

(b) For values of 453.6 kg (1000 lb) or more, the final value shall be calculated to at least five digits and declared to four digits, truncating the final digits as calculated (e.g., a calculated value of 570.44 kg (1257.6 lb) is truncated to 570.4 kg (1257 lb).
(Added 2018)

For SI dimensions:

$M = T \times A \times D/1000$, where:

M = net mass in kilograms
T = nominal thickness in centimeters
A = nominal length in centimeters times the nominal width [see *Section 2.13.4. NOTE*] in centimeters
D = minimum density in grams per cubic centimeter as defined by the latest version of ASTM Standard D1505, "Standard Test Method for Density of Plastics by the Density-Gradient Technique" and the latest version of ASTM Standard D883, "Standards Terminology Relating to Plastics."

For the purpose of this regulation, the minimum density (D) for linear low density polyethylene plastics (LLDPE) shall be 0.92 g/cm^3 (when D is not known).

For the purpose of this regulation, the minimum density (D) for linear medium density polyethylene plastics (LMDPE) shall be 0.93 g/cm^3 (when D is not known).

For the purpose of this regulation, the minimum density (D) for high density polyethylene plastics (HDPE) shall be 0.94 g/cm^3 (when D is not known).

For U.S. customary dimensions:

$W = T \times A \times 0.03613 \times D$, where:

W = net weight in pounds
T = nominal thickness in inches;
A = nominal length in inches times nominal width [see *Section 2.13.4 NOTE*] in inches
D = minimum density in grams per cubic centimeter as defined by the latest version of ASTM Standard D1505, "Standard Test Method for Density of Plastics by the Density-Gradient Technique" and the latest version of ASTM Standard D883, "Standards Terminology Relating to Plastics."

0.03613 is a factor for converting g/cm^3 to lb/in^3

For the purpose of this regulation, the minimum density (D) for linear low-density polyethylene plastics (LLDPE) shall be 0.92 g/cm^3 (when D is not known).

For the purpose of this regulation, the minimum density (D) for linear medium density polyethylene plastics (LMDPE) shall be 0.93 g/cm^3 (when D is not known).

For the purpose of this regulation, the minimum density (D) for high-density polyethylene plastics (HDPE) shall be 0.94 g/cm^3 (when D is not known).

(Added 1977) (Amended 1980, 1982, 1987, 1989, 1990, 1993, 2012, and 2018)

Section 2.13.4. NOTE: The nominal width for bags in this calculation is twice the labeled width.

2.14. Insulation.

2.14.1. Packaged Loose-Fill Insulation Except Cellulose. – The label shall declare:

(a) the type of insulation and the net weight with no qualifying statement; and

(b) the minimum thickness, maximum net coverage area, and minimum weight per square foot at R values of 11, 19, and 22. This information shall also be supplied for any additional R values listed.

(Amended 1990)

2.14.2. Packaged Loose-Fill Cellulose Insulation. – The label shall declare:

(a) the type of insulation and the net weight with no qualifying statement; and

(b) the minimum thickness, maximum net coverage area, number of bags per 1000 ft^2, and minimum weight per square foot at R values of 13, 19, 24, 32, and 40. This information shall also be supplied for any additional R values listed.

(Amended 1990)

2.14.3. Batt and Blanket Insulation. – The principal display panel of packaged batt or blanket insulation shall declare the square feet of insulation in the package and the length and width of the batt or blanket. In addition, R value and thickness shall be declared on the package.

2.14.4. Installed Insulation. – Installed insulation must be accompanied by a contract or receipt. For all insulation except loose-fill and aluminum foil, the receipt must show the coverage area, thickness, and R value of the insulation installed. For loose-fill, the receipt must show the coverage area, thickness, and R value of the insulation, plus the number of bags used. For aluminum foil, the receipt must show the number and thickness of the air spaces, the direction of heat flow, and R value. The receipt must be dated and signed by the installer.

Example: This is to certify that the insulation has been installed in conformance with the requirements indicated by the manufacturer to provide a value of R 19 using 31.5 bags of insulation to cover 1500 ft^2 area. Signed and dated_____.

(Added 1979) (Amended 1983)

2.15. Solid Fuel Products. – Anthracite, semi anthracite, bituminous, semi-bituminous or lignite coal, and any other natural, manufactured, or patented fuel, not in liquid or gaseous form, except fireplace and stove wood, shall be offered, exposed for sale, or sold by net weight when in package form.

(Added 1979)

2.16. Compressed or Liquefied Gases in Refillable Cylinders.

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

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

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

2.16.3.1. Tare Weights.

(a) **Stamped or Stenciled Tare Weight.** – For safety purposes, the tare weight shall be legibly and permanently stamped or stenciled on the cylinder. All tare weight values shall be preceded by the letters "TW" or the words "tare weight." The tare weight shall include the weight of the cylinder (including paint), valve, and other permanent attachments. The weight of a protective cap shall not be included in tare or gross weights. General requirements for specification cylinders, **49 C.F.R. § 178.35** requires the maker of cylinders to retain test reports verifying the cylinder tare weight accuracy.

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

(1) the stamped or stenciled tare weight; or

(2) the actual tare determined at the time of filling the cylinder. If the actual tare is determined at the time of filling the cylinder, it must be legibly marked on the cylinder.

(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) 1/2 % for tare weights of 9 kg (20 lb) or less; or

(2) 1/4 % for tare weights of more than 9 kg (20 lb).

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

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

(e) **Tare Determination. –** The stamped or stenciled tare weight shall be used for purposes of verifying the net contents unless the actual tare weight is determined, then the actual tare weight shall be used for purposes of net content verification. The removable protective cap and label are not included in the stamped or stenciled tare but must be included in the total tare determinations.

2.16.3.2. Water Capacity By Weight. – The water capacity by weight of the cylinder, used to determine the maximum filling level of a cylinder, must be marked on the cylinder at the time of manufacture. The water capacity shall be abbreviated WC. A cylinder with a water capacity of 11.34 kg (25 lb) or less, shall be allowed an allowable difference of − 1 % and no plus allowance. A cylinder exceeding 11.34 kg (25 lb) water capacity, shall have an allowable difference of − 0.5 % and no plus allowance.

(Added 2022)

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

2.16.3.4. Acetylene Gas Cylinder Volumes. – The volumes of acetylene shall be determined from the product weight using NIST Standard Reference Database 23 "Reference Fluid Thermodynamic and Transport Properties Database" (REFPROP) (see **www.nist.gov/srd/refprop**) (***Note***: Weights and measures officials should contact the NIST Office of Weights and Measures at **owm@nist.gov** for access to the database.) and supplemented by additional procedures or those developed using 70 °F (21 °C) and 14.7 ft3 (101.35 kPa) per pound at 1 atmosphere as conversion factors.

2.16.3.5. Compressed Gases such as Oxygen, Argon, Nitrogen, Helium, and Hydrogen. – The volumes of compressed gases such as oxygen, argon, nitrogen, helium, or hydrogen shall be determined using NIST Standard Reference Database 23 "Reference Fluid Thermodynamic and Transport Properties Database" (REFPROP) (see **www.nist.gov/srd/refprop**)

Note: Weights and measures officials should contact the NIST Office of Weights and Measures at **owm@nist.gov** for access to the database.) and supplemented by additional procedures.

(Added 1981) (Amended 1990 and 2022)

2.17. Precious Metals.

2.17.1. Definition.

2.17.1.1. Precious Metals. – Gold, silver, palladium, platinum, or any item composed partly or completely of these metals or their alloys and in which the market value of the metal in the item is principally the gold, silver, palladium, or platinum component.

(Amended 2017)

2.17.2. Quantity. – The unit of measure and the method of sale of precious metals, if the price is based in part or wholly on a weight determination, shall be either troy weight or SI units. To facilitate price comparison and provide information allowing consumers to make an informed decision a chart must be prominently displayed and present in proximity to the purchasing scale being used for the transaction. This chart requirement is not intended to apply to pure precious metal bullion traded or commodity markets such as stock exchanges and the like rather it is only intended to apply to precious metals purchased by weight by

businesses from the general public through non-retail transactions. The chart must be clearly visible to the seller and contain at a minimum the following information.

(a) A table of weights indicating grams and troy ounces.

(b) The percentages as noted in Table 3. Percentage of Precious Metals Contained in Common Mixtures found in the marketplace.

(c) If buying precious metals based on weight, the chart shall also state the price per unit weight on which the buying price is based.

(d) If buying precious metals based on weight in the following formula:

(Item Weight × Percentage in Decimal Form of Precious Metal Contained in the Item) ×

(Price per Weight Being Paid) = Potential Monetary Offer.

NOTE: The item weight and price per unit weight must be in the same units.

(e) When the measurement of method of sale is expressed in SI units of mass, a conversion chart to troy units must also be present on the chart.

Table 3. Percentage of Precious Metal Contained in Common Mixtures

Gold	10 karat	41.7 %
	14 karat	58.3 %
	18 karat	75.0 %
	24 karat	100 %
Silver	Sterling	92.5 %
Platinum	900 Platinum	90 %
	950 Platinum	95 %
Palladium	950 Palladium	95 %

(Added 1982) (Amended 2017)

2.18. Mulch.

2.18.1. Definition.

2.18.1.1. Mulch. – Any product or material except peat or peat moss (see Section 2.5. Peat and Peat Moss) that is advertised, offered for sale, or sold for primary use as a horticultural, aboveground dressing, for decoration, moisture control, weed control, erosion control, temperature control, or other similar purposes.
(Added 1987)

2.18.2. Quantity. – All mulch shall be sold, offered, or exposed for sale in terms of volume measure in SI units in terms of the cubic meter or liter or in U.S. customary units in terms of the cubic yard or cubic foot.
(Added 1983) (Amended 1987)

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 and 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 0.3 % 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 (1/2 in) in height, 1.5 mm (1/16 in) stroke (width of type).

(Amended 1996)

2.20.2. Product Transfer Document (PTD) Requirements. – The retailer shall be provided information that complies with PTD requirements for gasoline, gasoline additives, and gasoline regulated blendstocks **40 C.F.R. § 1090.1110**, at the time of delivery of the fuel, on product transfer documents such as an invoice, bill of lading, shipping paper, or other documentation. Additional declarations may be required for specific fuels:

(a) For fuels containing multiple oxygenates or oxygenates other than ethanol a declaration of the predominant oxygenate or combination of oxygenates present in concentrations sufficient to yield an oxygenate content of at least 1.0 % by volume in the fuel. Where mixtures of only ethers are present, the fuel supplier may identify either the predominant oxygenate in the fuel (i.e., the oxygenate contributing the largest mass percent oxygen) or alternatively, use the phrase "contains MTBE or other ethers."

(b) For fuels containing more than 0.3 % by volume methanol a declaration shall be identified as "with" or "containing" methanol.

(Added 1984) (Amended 1985, 1986, 1991, 1996, 2014, 2022, and 2023)

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 E15 labeling provisions, **40 C.F.R. § 1090.1510**. (For additional information, refer to Section 2.30.2. FTC Labeling Requirements.)

(Added 2018) (Amended 2022)

2.21. Liquefied Petroleum Gas.

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

(a) **Weight** – by the kilogram or pound; or

(b) **Gaseous Volume** – by the metered cubic meter of vapor (defined as 1 m^3 at 15 °C); or metered cubic foot of vapor (defined as 1 ft^3 at 60 °F) [see ***Section 2.21. NOTE***]; or

(c) **Liquid Volume** – by the liter (defined as 1 liter at 15 °C) or the gallon (defined as 231 in^3 at 60 °F).

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

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

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

(c) Effective January 1, 2034, all metered sales (through all capacities of metering devices, regardless of installation and service date) shall be accomplished by use of a metering system that automatically compensates for temperature.

Section 2.21. NOTE: *S*ources: ANSI B109.1 (2000), For Diaphragm-Type Gas Displacement Meters (Under 500 Cubic Feet Per Hour Capacity and NIST Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices.

(Added 1986) (Amended 2023 and 2025)

2.22. Liquid Oxygen Used for Respiration.

(a) If sold by weight, liquid oxygen must be weighed on an appropriate, sealed commercial scale. A pressure or other type of gauge may not be used to determine weight.

(b) A delivery ticket or sales invoice shall be provided and shall contain at least the following information:

(1) date delivered;

(2) name and address of vendor;

(3) name and address of the purchaser;

(4) if sold by weight:

i. weight of cylinder before filling;

ii. weight of cylinder after filling; and

iii. the net weight of liquid oxygen delivered;

(5) if sold by measure:

i. measurement and any computation used to arrive at the net quantity of liquid oxygen delivered;

(6) the unit price;

(7) the total computed price; and

(8) weigher's or measurer's signature.
(Added 1989)

2.23. Animal Bedding.
(Amended 2016)

2.23.1. Definitions.

2.23.1.1. Compressed Animal Bedding. – Means the volume of the bedding was reduced under pressure during the packaging process.
(Added 2016)

2.23.1.2. Useable Volume. – The volume of the product that can be recovered from a package by the consumer after it is unwrapped and, if necessary, uncompressed.
(Added 2016)

2.23.2. Method of Sale.

(a) Packaged animal bedding of all kinds, except for baled straw, shall be advertised, labeled, offered for sale and sold by volume in either a compressed or an uncompressed package. A package of compressed animal bedding shall be advertised, labeled, offered, and exposed for sale and sold on the basis of the "Useable Volume." If unit pricing is provided for use by retail customers to make a value comparison, it shall be in terms of the price per liter.

(b) A quantity declaration shall be in terms of the largest whole unit of the milliliter, liter, or cubic meter. A declaration may also include the quantity in terms of largest whole unit of the cubic inch, cubic foot, or cubic yard only. The terms "Useable Volume" must appear in the quantity declaration on a package of compressed animal bedding.

Examples for Uncompressed Animal Bedding:
Volume 41 Liters (1.4 Cubic Feet)
Volume 125 Liters

Examples for Compressed Animal Bedding:
Useable Volume 1.4 Cubic Feet (41 Liters)
Useable Volume 27.9 Liters (1700 Cubic Inches)
Useable Volume 113 L (4 Cubic Feet)
Useable Volume 226 L

(c) The display of a net or gross weight, pre-compression volume, compressed volume, or supplementary dry measure quantities (e.g., dry pint, dry quart, or bushel) anywhere on the package is prohibited.

(Added 2016) (Amended 2017)

2.23.3. Exemption - Non-Consumer Packages Sold to Laboratory Animal Research Industry. – Packaged animal bedding consisting of granular corncobs and other dry (8 % or less moisture), pelleted, and/or non-compressible bedding materials that are sold to commercial (non-retail) end users in the laboratory animal research industry (government, medical, university, preclinical, pharmaceutical, research, biotech, and research institutions) may be sold on the basis of weight.
(Added 2010)

2.24. Wiping Cloths. – Wiping cloths shall be sold by net weight or by count plus size of wiping cloths. When sold by count plus size, and the wiping cloths are of assorted sizes, the term "irregular dimensions" and the minimum size of such cloths must be declared. The gross weight may not be printed on any package, either consumer or non-consumer.
(Added 1991)

2.25. Baler Twine. – Baler twine shall be sold on the basis of length in meters or feet, and net mass or weight by kilograms or pounds.

(Added 1992)

2.26. Potpourri. – Potpourri shall be sold as follows:

(a) Potpourri packaged in advance of sale shall be sold by weight, except when sold in a decorative container or sachet, which may be sold by count.

(b) Potpourri sold from bulk shall be sold by weight or by dry volume.

(Added 1992)

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)

2.28. Communication Paper.

2.28.1. Definitions.

2.28.1.1. Communication Paper. – Packaged bond, mimeo, spirit duplicator, xerographic, and other papers, including cut-sized office paper and computer paper.

2.28.1.2. Basis Weight. – As used in this regulation for labeling means the grade, category, or identity of the paper determined according to the latest version of ASTM D646, "Standard Test Method for Mass Per Unit Area of Paper and Paperboard of Aramid Papers (Basis Weight)." Basis weight is used as a standard of identity and is not considered a net weight declaration.

2.28.2. Method of Retail Sale and Labeling.

2.28.2.1. Method of Retail Sale. – All packaged communication paper kept, offered, or exposed for sale and sold at retail shall be sold in terms of sheet length and width and count.

2.28.2.2. Labeling. – Communication paper in package form shall bear a label that includes:

(a) a declaration of quantity, in terms of sheet length and width and count, in the lower 30 % of the principal display panel.

(b) a declaration of identity including the basis weight, and may include such other information as grain direction, color, brightness, printed lines, and hole punch information. Due to the variation in basis weight in manufacturing and analysis, the basis weight declared on the label shall correspond to the basis weight declared by the original manufacturer.

(Added 1994)

2.29. Sand, Rock, Gravel, Stone, Paving Stone, and Similar Materials, when Sold in Bulk. – All sand, rock, gravel, stone, paving stone, and similar materials kept, offered, or exposed for sale in bulk must be sold as follows:

(a) Top soil, fill dirt, aggregate or chipped rock, sand (including concrete and mortar sand), decomposed granite, landscape type rock, and cinders must be sold by the cubic meter or cubic yard or by weight.

(b) Flagstone must be sold by weight.

(c) Dimensional cut stone must be sold by the square meter, square foot, or weight.

(d) This requirement does not apply to single stones with engraving such as gravestones, natural or manmade artwork, landscape boulders, and pre-cast uniform size blocks.

(Added 2000)

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 (FTC) Automotive Fuel Ratings, Certification and Posting Rule, **16 C.F.R. § 306**, as amended. (For additional information, see Section 2.20.3. EPA Labeling Requirements.)

(Added 2007) (Amended 2014 and 2018)

2.31. Retail Sales of Hydrogen Fuel (H).

2.31.1. 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)

2.31.2. 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).

2.31.3. 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 Labeling Requirements for Alternative Fuels and Alternative Fueled Vehicles, **16 C.F.R. § 309**.

2.31.4. 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)

2.32. Oil.

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

2.32.1.1. 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)

2.32.1.2. 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)

2.32.1.3. 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)

2.32.1.3.1. 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)

2.32.1.3.2. Inactive or Obsolete Service Categories. – Whenever any vehicle engine (motor) oil in a container, receptable, dispenser, storage tank, 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")," 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 the front or forward 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 the latest version of SAE J183, Appendix A. Whenever any vehicle engine (motor) oil is declared obsolete by a vehicle or engine manufacturer, the front or forward-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 required by the vehicle or engine manufacturer.

(Amended 2014 and 2021)

2.32.1.4. 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 Section 2.33.1.5. Documentation shall be readily available for inspection.

(Amended 2013, 2014, and 2021)

2.32.1.5. 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 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 the 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 and 2021)

(Added 2012) (Amended 2013, 2014, and 2021)

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

2.33.1. Definitions.

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

2.33.1.2. 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.

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

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

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

2.33.2. 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 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.

(Amended 2023)

2.33.3. 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 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 Labeling Requirements for Alternative Fuels and Alternative Fueled Vehicles, **16 C.F.R. § 309**.

(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**).

2.33.4. 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 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.

(Amended 2023)

(Added 2013)

2.34. Diesel Exhaust Fluid (DEF).

2.34.1. Definition.

2.34.1.1. Diesel Exhaust Fluid (DEF). – A preparation of aqueous urea [$(NH_2)_2CO$], 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."

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

2.34.2.1. 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."

2.34.2.2. 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.

2.34.2.3. 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)."

2.34.2.4. 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.

(Added 2014)

2.35. Transmission Fluid.

2.35.1. 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).

2.35.1.1. 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.

2.35.1.2. 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.

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

2.35.2.1. 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.

2.35.2.2. 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.

2.35.2.3. 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.

2.35.2.4. 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.

2.35.2.5. 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.

2.35.3. 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)

2.36. Pet Treats or Chews. – Digestive chews, rawhides, bones, biscuits, antlers or similar type products shall be sold by weight.

(Effective July 18, 2019. Enforceable January 1, 2022)

(Added 2018) (Amended 2019)

2.37. Non-Utility Transactions of Electrical Energy (Other than Vehicle Fueling Applications). – This 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) Electrical 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.

2.37.1. Definitions.

2.37.1.1. 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.

2.37.1.2. 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.

2.37.1.3. 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.

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

2.37.2. 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.

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

(Added 2019)

2.38. Tractor Hydraulic Fluid.

2.38.1. Products for Use in Lubricating Tractors. – Tractor hydraulic fluids shall meet at least one current and/or verifiable original equipment manufacturer's specifications for respective tractors. A specification is deemed verifiable if all necessary bench and laboratory tests are available to verify the fluid's ability to pass those requirements set out by the original equipment manufacturer. A list of current and verifiable original equipment manufacturer's specifications is located on the NCWM website (www.ncwm.com). 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 specifications shall be assessed after testing per relevant methods available to the lubricants industry and the 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 shall be provided upon request to a duly authorized representative of the Director.

Supporting data shall, upon request, be supplied directly to the Director's office by the additive supplier(s).

(Amended 2021)

2.38.1.1. Conformance. – Conformance of a fluid per Section 2.38.1. 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.

2.38.1.2. 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 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.

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

2.38.2.1. 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 are those set by original equipment manufacturers;

(e) any obsolete equipment manufacturer specifications shall be clearly identified as "obsolete" and accompanied by the following cautionary statement on the principal display panel in accordance with the Uniform Packaging and Labeling Regulation, Section 8. Prominence and Placement: Consumer Packages and Section 9. Prominence and Placement: Non-Consumer Packages.

Caution: Some of the specifications are no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, seals, final drive or axles is possible when using this product in applications in which it is not intended.

The above cautionary statement is not required if the fluid claims to meet current original equipment manufacturer's specifications and refers to thereby preceding specifications; and

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

(Amended 2021)

2.38.2.2. 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 are those set by original equipment manufacturers;

(e) any obsolete equipment manufacturer specifications shall be clearly identified as "obsolete" and accompanied by the following cautionary statement on the documentation in a clear and conspicuous manner.

Caution: Some of the specifications are no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, seals, final drive or axles is possible when using in applications in which it is not intended.

The above cautionary statement is not required if the fluid claims to meet current original equipment manufacturer's specifications and refers to thereby preceding specifications; and

(f) an accurate statement of the quantity of the contents in terms of liquid measure.
(Amended 2021)

2.38.2.3. 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 are those set by original equipment manufacturers;

(e) any obsolete equipment manufacturer specifications shall be clearly identified as "obsolete" and accompanied by the following cautionary statement on the customer invoice in a clear and conspicuous manner.

Caution: Some of the specifications are no longer deemed active by the original equipment manufacturer. Significant harm to the transmission, hydraulic system, seals, final drive or axles is possible when using in applications in which it is not intended.
The above cautionary statement is not required if the fluid claims to meet current original equipment manufacturer's specifications and refers to thereby preceding specifications; and

(f) an accurate statement of the quantity of the contents in terms of liquid measure.
(Amended 2021)

2.38.2.4. 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 2.38.2.2. Identification on Documentation.

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

(a) the brand name; and

(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 are those set by original equipment manufacturers
(Amended 2021)

2.38.3. Documentation of Claims Made Upon Product Label. – Any manufacturer, packer, or distributor of any product subject to this article and sold 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 shall be provided upon request to a duly authorized representative of the Director. Supporting data shall, upon request, be supplied directly to the Director's office by the additive supplier(s).

(Added 2019) (Amended 2021)

2.39. Diesel Fuel. – Shall meet the following requirements, based on the biodiesel concentration of the fuel:

(a) Diesel fuel that contains less than or equal to 5 % by volume biodiesel shall meet the latest version of ASTM D975, "Standard Specifications for Diesel Fuels" and shall be sold as diesel fuel.

(b) Diesel fuel that contains biodiesel in concentrations greater than or equal to 6 % by volume and less than or equal to 20 % by volume shall meet the latest version of ASTM D7467, "Standard Specifications for Diesel Fuel Oil, Biodiesel Blend (B6 to B20)."

(Amended 2024)

(c) Diesel fuel that contains greater than or equal to 21 % by volume biodiesel shall be a blend of fuel from (a) or (b) and biodiesel meeting the latest version of ASTM D6751, "Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels."

(Amended 2024) (Added 2024)

(c) Only fuel additive registered with the U.S. EPA may be used to additize diesel fuel.

(Amended 2024) (Added 2024)

2.39.1. Labeling of Retail Dispensers.

2.39.1.1. FTC Automotive Fuel Rating. – Diesel fuel shall be labeled with its automotive fuel rating in accordance with Automotive Fuel Ratings, Certification and Posting Rule 16 C.F.R. 306.

2.39.1.2. Biodiesel Concentrations of 21 % or Greater. - When diesel fuel that contains biodiesel concentrations greater than or equal to 21 % by volume is 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 (1/4 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.

2.39.1.3. 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 and or volume percent of biomass-based diesel on an invoice, bill of lading, shipping paper, or other documents. 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.

2.39.1.4. Delivery Documentation for Premium Diesel or Other Diesel Terminology Claims. – Before or at the time of delivery of the diesel fuel, the retailer or the wholesale purchaser-consumer shall be provided on an invoice, bill of lading, shipping paper, or other documentation a declaration of all performance properties that qualifies the fuel as premium diesel fuel as required in Section 2.39.2. Premium Diesel Fuel and 2.39.3. Use of Other Diesel Terminology.

(Added 2024)

2.39.2. Premium Diesel Fuel. – All diesel fuels identified on retail dispensers as premium, super, supreme, or premier must conform to the following minimum requirements.

(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, "Standard Test Method for Cetane Number of Diesel Fuel Oil" is the referee method; however, the following methods can be used to determine cetane number: the latest version 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"; 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," tenth percentile minimum ambient air temperature charts and maps by the latest version 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 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 °C below the Cloud Point. Low temperature operability is only applicable October 1 to March 31 of each year.

NOTE: When Cloud Point determinations are made, ASTM D2500, "Standard Test Method for Cloud Point of Petroleum Products and Liquid Fuels" is the referee method. However, bias-corrected results from the automatic Standard Test Methods listed in the latest version of ASTM D975, "Standard Specification for Diesel Fuel" may be used as alternatives with the same limits. Bias-correction equations are noted in the respective precision sections of each automatic test method. In case of dispute, ASTM Test Method D2500 shall be the referee method.

(Note Added 2025)

(c) **Lubricity.** – A maximum wear scar diameter of 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)."

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 latest recent version of NACE TM0172 "Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines" is the referee method. The latest 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 the latest version of 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."

2.39.3. Use of Other Diesel Terminology. – For any terms other than premium, super, supreme, or premier included in the diesel fuel product or grade name and/or advertisements and claims displayed on dispensers, pump toppers, pole signs and bollard signs which imply improved performance, the product must have a clearly-defined fuel property with a substantiated functional benefit. Such property must be measurable utilizing industry

accepted test methodologies developed by recognized standards organizations such as ASTM, SAE, and CEC to allow verification of the improved performance.

(Added 2021)

2.40. *Cannabis* and *Cannabis*-Containing Products. – *Cannabis* is a genus of flowering plants in the family Cannabaceae, of which *Cannabis sativa, indica, ruderalis* are species, and any hybridization thereof. This definition includes products that contain 0.3 percent or less of Total Delta-9 Tetrahydrocannabinol (THC) (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 (THC) (also known as cannabis, marijuana, or marihuana).

2.40.1. Unit.

(a) Volume – Products offered for sale in liquid form shall be sold by volume.

(b) Weight – Products offered for sale in non-liquid form shall be sold by weight. These products may also have a supplemental declaration of count or measure.

2.40.2 Sale from Bulk.

(a) When sold from bulk, all sales shall be based on net weight or net volume.

(b) When liquids are offered for sale from bulk, the reference temperature for measurement shall be 20 °C (68 °F). Products shall be delivered at a temperature within ± 2 °C (5 °F). Artificially heating liquids to temperatures higher than the specified limits is prohibited.

2.40.3. Water Activity. – When unprocessed *Cannabis*, is kept, offered, or exposed for sale, sold, bartered, or exchanged, or ownership transfers, the water activity shall be 0.60 (± 0.05) in accordance with latest version of ASTM D8197, Standard Specification for Maintaining Acceptable Water Activity (a_w) Range (0.55 to 0.65) for Dry Cannabis Flower Intended for Human/Animal Use.

(Added 2023)

Section 3. General

3.1. Presentation of Price. – Whenever an advertised, posted, or labeled price per unit of weight, measure, or count for any commodity includes a fraction of a cent, all elements of the fraction shall be prominently displayed, and the numerals expressing the fraction shall be immediately adjacent to, of the same general design and style as, and at least one half the height and width of, the numerals representing the whole cent.

(Added 1976)

3.2. Allowable Differences: Combination Quantity Declarations. – Whenever the method of sale for a bulk or packaged commodity requires the use of a statement that includes count in addition to weight, measure, or size, the following shall apply to the particular commodity:

3.2.1. Beverageware: Pressed and Blown Tumblers and Stemware. – The allowable difference between actual and declared capacity shall be:

(a) **SI Units:**

(1) plus or minus 10 mL for items of 200 mL capacity or less; and

(2) plus or minus 5 % of the stated capacity for items over 200 mL capacity.

(Added 1973) (Amended 1974, 1979, and 1980)

(b) **U.S. Customary Units:**

(1) plus or minus 1/4 fl oz for items of 5 fl oz capacity or less; and

(2) plus or minus 5 % of the stated capacity for items over 5 fl oz capacity.

3.3. Labeling of Machines that Dispense Packaged Commodities. – All vending machines dispensing packaged commodities shall indicate:

(a) product identity;

(b) net quantity; and

(c) the party responsible for the vending machine.

Examples:
"For service or refunds contact: XYZ Cola Company Rockville, MD 20800"
"Telephone: (301) 555-1000," or "See attendant inside for refunds."

(Amended 1995)

(d) the requirements for product identity and net quantity can be met either by display of the package or by information posted on the outside of the machine.

(Added 1972)

3.4. Railroad Car Tare Weights. – Whenever stenciled tare weights on freight cars are employed in the sale of commodities or the assessment of freight charges, the following conditions and requirements shall apply:

3.4.1. Newly Stenciled Tare Weights. – All newly stenciled or re-stenciled tare weights shall be accurately represented to the nearest 50 kg for metric units and to the nearest 100 lb for U.S. customary units, and the representation shall include the date of weighing.

(Amended 1979)

3.4.2. Allowable Difference. – The allowable difference between actual tare weight and stenciled tare weight on freight cars in use shall be per Section 3.4.2.(a) SI allowable difference or Section 3.4.2.(b) U.S. customary allowable difference.

(a) **SI allowable difference:**

(1) plus or minus 150 kg for cars 25 000 kg or less;

(2) plus or minus 200 kg for cars over 25 000 kg to and including 30 000 kg; and

(3) plus or minus 250 kg for cars over 30 000 kg.

(Added 1979)

(b) **U.S. customary allowable difference:**

(1) plus or minus 300 lb for cars 50 000 lb or less;

(2) plus or minus 400 lb for cars over 50 000 lb to and including 60 000 lb; and

(3) plus or minus 500 lb for cars over 60 000 lb.

3.4.3. Verification or Change of Tare Weights. – Tare weight determinations for verification or change of stenciled weights shall only be made on properly prepared and adequately cleaned freight cars.

3.4.4. Special Cars. – Tank cars, covered hopper cars, flat cars equipped with multi-deck racks or special superstructure, mechanical refrigerator cars, and house type cars equipped with special lading protective devices must be reweighed and re-stenciled only by owners or their authorized representatives:

(a) when car bears no lightweight (empty weight) stenciling; and

(b) when repairs or alterations result in a change of weight in excess of the permissible lightweight tolerance.

(Added 1974) (Renumbered 1985)

(Added 1973) (Amended 1974, 1979, and 1985)

Section 4. Revocation of Conflicting Regulations

All provisions of all orders and regulations heretofore issued on this same subject that are contrary to or inconsistent with the provisions of this regulation, and specifically _____, are hereby revoked.

(Added 1971)

Section 5. Effective Date

This regulation shall become effective on _____.

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

Signed _____

(Added 1971) (Amended 1973)

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VI. NCWM Policy, Interpretations, and Guidelines

Excerpts from NCWM Publication 3

Table of Contents

VI. NCWM Policy, Interpretations, and Guidelines

Introduction

This section of the handbook includes the National Council on Weights and Measures (NCWM) interpretations, policies, recommendations, inspection outlines, and information on issues that have come before the NCWM. Several sections include information on federal requirements related to the uniform laws and regulations presented in the handbook. The purpose of this section is to assist users in understanding and applying the uniform regulations and to guide administrators in implementing new programs or procedures. The guidelines or recommendations provided should not be construed to redefine any state or local law or limit any jurisdiction from enforcing any law, regulation, or procedure (unless the section describes a specific federal regulation that preempts local requirements).

(Added 1997)

2.1.4. Offenses and Penalties, Sale of an Incorrect Device.
(L&R, 1987, p. 124)

A jurisdiction seeking to enforce the provision of the Uniform Weights and Measures Law that prohibits the sale of an incorrect device would have to show that the seller knowingly sold or offered for sale for use in commerce an incorrect weight or measure. Under Section 22, a seller would not be responsible for actions taken by the purchaser or distributor, in which the seller did not participate or have prior knowledge. Thus, the seller would not be liable:

(1) if a purchaser or distributor modified a scale obtained from a seller; or

(2) if a scale were used in trade after the seller informed the purchaser that the scale was not appropriate for that use.

In cases, such as those noted above, the Committee feels that the seller would be protected from prosecution. Only sellers who knowingly violate the provision would be subject to prosecution.

2.1.5. Weight: Primary Mill Paper.
(L&R, 1990, p. 81)

Interpretation

Non-consumer sales of "primary mill paper" were discovered by weights and measures officials to be labeled and invoiced on what was called a "gross weight" basis. Primary mill paper is produced for commercial or industrial companies for subsequent additional processing, such as paper for newspaper or magazine publishers or sanitary tissue manufacturers. The primary mill paper is cut from "parent rolls" but is still a commercial-sized item weighing from several hundred to several thousands of pounds.

The key to understanding the longstanding trade practice is that the purchaser of such paper specifies not only the quality of the paper being purchased, such as the thickness, surface coating, etc., but the purchaser also specifies the core around which the paper is to be wound, the type of overwrap, the number of overwraps, and such other requirements that will ensure receipt of the primary mill paper in proper condition for subsequent processing. The weight of the core and wrapping is approximately 1 % of the gross weight. It is recycled by the purchasers in their own or other paper recovery or reuse systems.

Having reviewed the practices in the industry in the specification and purchasing of primary mill paper, the Committee concludes that the true product is the paper plus the packaging (in order to assure maintenance of quality) and an appropriate core (to ensure a fit on the recipient's equipment). Therefore, in the Committee's opinion, the sale of primary mill paper is not at all on a gross weight basis. This is and has been a misnomer. The true identity of the purchased product has been misunderstood by weights and measures authorities, further compounded by the industry use of the term "gross weight." The product is the primary mill paper plus the core and overwrap specified by the purchaser.

The Committee, therefore, believes that the industry should review its invoicing and labeling to clarify that the weight of the specified product is the weight of the primary mill paper, core, and overwrap. Although this weight is the gross weight of the entire item as produced and shipped, it is the net weight of the item as specified by the purchaser.

This interpretation applies only to primary mill paper and is not intended to be applied to all non-consumer products ordered by specification; it is a narrow interpretation applying to the specific method of sale in this trade where the service of packaging and the packaging is part of the purchase.

2.2.13. Declaration of Identity: Consumer Package (UPLR) and 1.5.1. In Combination with Other Foods (UMSCR).

(L&R, 1990, p. 93)

Background

Many food products are made by the retail store and labeled with names that may or may not have standards of identity or standards of composition in federal regulation or policy (for example, chicken cordon bleu). Weights and measures officials need to know which names have standards of identity that must be followed in formulating the product and, therefore, in providing the ingredient statement.

Food Standards

The U.S. Department of Agriculture's Food Safety and Inspection Service (USDA - FSIS) and the U.S. Department of Health and Human Services' FDA share the responsibility of assuring truthful and accurate information on product labels. USDA - FSIS has responsibility for the development and application of the labeling requirements applicable to meat and poultry products containing more than 3 % fresh meat or at least 2 % cooked poultry meat. FDA oversees the labeling of most other food products.

USDA Standards of Identity and Composition

USDA has statutory authority to establish standards of identity for meat and poultry products. A standard of identity prescribes a manner of preparation and the ingredients of a product that is labeled with a particular name. A food that bears the name of a standardized food that does not satisfy the requirements of the applicable standard is misbranded. Examples of standardized products include: "Ham," "Ham Water Added," "Hot Dogs," "Chicken and Noodles," and "Spaghetti Sauce with Meatballs."

Almost all standards enforced by FSIS are called "standards of composition." These standards identify the minimum amount of meat or poultry required in a product's recipe. For example, the standard of composition for "beef a la king" states that, if a product carries this name on its label, at least 20 % cooked beef must be used in the recipe.

But standards of composition do not prevent a manufacturer from increasing the meat or poultry content or adding other ingredients to increase a product's appeal. For instance, a processor has the option of using more than the required amount of beef in beef a la king and adding other ingredients to make the product unique. A listing of meat and poultry content and labeling requirement including terms that are further defined can be found in the USDA FSIS Food Standards and Labeling Policy book which is available at: **www.fsis.usda.gov/wps/portal/fsis/topics/regulatory-compliance/labeling/Labeling-Policies**

Label Approval

Food manufacturers are responsible for compliance with the FSIS labeling rules and adherence to the process maintained by FSIS for the evaluation and approval of meat and poultry product labels. This Guide provides the basic information necessary to devise a label for meat and poultry products and to understand the regulatory process administered by FSIS. A Guide to Federal Food Labeling Requirements for Meat and Poultry Products (2007) URL is located at: **www.fsis.usda.gov/wps/portal/fsis/topics/regulatory-compliance/labeling/labeling-policies/basics-of-labeling/basics-labeling**.

2.2.14. Typewriter and Computer Printer Ribbons and Tapes.

(L&R, 1991)

Interpretation

Typewriter and computer printer ribbons must be labeled by length. In addition, character yield information may be disclosed on the principal display panel.

Background

Packages of typewriter and computer printer ribbons and tapes have been found in the marketplace with no declaration of quantity of any kind. There is information on the package about the type of machine the ribbon or tape is designed to fit, but this is not a declaration of quantity. Purchasers have been misled as a result of the failure of some manufacturers to disclose the length; ribbons designated for a particular machine may be sold at a low price, but with substantially less length than ribbons ordinarily produced for the machine.

2.3.1. Instant Concentrated Products.

(L&R, 1977, p. 219)

Interpretation

No additional net contents information (other than weight) is required for instant coffee, tea, and cocoa.

Background

It was proposed that certain products, such as instant coffee, tea, and cocoa, should have a dual statement of weight including the number of cups (e.g., makes ten 6 oz cups).

The National Coffee Association of U.S.A., Inc., offered the following comments:

1. The number of servings of instant coffee will depend upon the size of the cup involved and the taste of the individual consumer.

2. The size of a cup will vary widely, ranging from a small “demitasse” cup to a large coffee mug.

3. The taste of the individual consumer defies definition because it will vary as widely as the number of individuals considered. Market research shows many like it “strong and black” and others prefer it “mild and thin.”

4. Any statement placed on a container of instant coffee that represents that the consumer will be able to obtain a specified number of servings would be arbitrary, confusing and, in a very sense, deceptive.

5. In view of the foregoing, any such requirements that the number of servings be listed on a container of instant coffee might expose the manufacturer to complaints from consumers that it was engaging in an unfair and deceptive practice.

Other issues that the Committee discussed included the authority to require precise directions (rather than, for example, two to three heaping teaspoons) and the issues of product variability and uniform enforcement.

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

Commodity	Weight	Count	Head or Bunch	Dry Measure (any size)	Dry Measure (1 dry qt or larger)
Specific Commodity Group					
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				
Melons (cut in pieces)	X				
Mushrooms (small)	X			X	X
Mushrooms (portobello, large)	X	X			
Okra	X				
Peas	X				X

Commodity	Weight	Count	Head or Bunch	Dry Measure (any size)	Dry Measure (1 dry qt or larger)
Peppers (bell and other varieties)	X	X			X
Pineapples	X	X			
Rhubarb	X		X		
Tomatoes (except cherry/grape)	X	X			X
General Commodity Group					
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		

2.3.3. Cardboard Cartons.

(L&R, 1974, p. 223)

Guidelines and Interpretations

Cardboard cartons should be sold by their dimensions. Identification numbers used in the trade do not correspond to these dimensions and could tend to mislead the uninformed purchaser (although there is no actual unit such as inches associated with the identification numbers). Sales or catalogue literature will have to be investigated to determine whether there is sufficient information upon which to make a purchasing decision.

Background

Copies of letters received by the New York Bureau of Weights and Measures regarding cardboard containers were forwarded to the Committee. These letters highlight the confusion that exists when these containers are sold to new businessmen by an identity number which is often mistaken for the size of the box. For example, a 30 × 4 identification number refers to a box whose actual size is 27 in × 3 in. It was suggested that a new section be added

to the Method of Sale of Commodities Regulation so that these containers can be sold on a basis that will provide more accurate information.

An important argument in support of adding a new section is that small businessmen just getting started need as much assistance as can be provided in order to survive and grow.

An argument opposing this change is that a table, similar to Table 1. of Section 2.9. (Softwood Lumber) of the Uniform Method of Sale Regulation, could be printed showing the relationship between identity and size; this would not solve the problem.

It is the consensus of the Committee that these containers should be sold by actual size. The Committee does not believe, however, that every trade practice must be controlled through the Uniform Laws and Regulations. This is particularly true where the item does not directly concern the retail consumer. The Committee, therefore, recommends that the appropriate trade associations be contacted and asked to correct this practice on a voluntary basis.

2.3.4. Catalyst Beads.

(L&R, 1981, p. 100)

Guideline and Interpretation

The proper method of sale of catalyst beads used in automobile exhaust systems is by volume. It is appropriate for the quantity declaration to be supplemented by part number or other description of the specific converter for which the package of catalyst beads is intended.

Background

A communication from the General Motors Corporation AC Spark Plug Division was forwarded to the Committee which proposes discontinuing the labeling of their catalyst beads by weight. When the catalyst becomes contaminated by leaded gasoline or prolonged use, the catalytic converter in the exhaust system of recent GM cars and trucks (running on unleaded gasoline) must be emptied of its catalyst beads and be refilled by volume with replacement catalyst beads in order to meet emission standards. The beads are used by volume (to fill a catalytic converter), are hygroscopic, and vary in core material density. Therefore, packages of beads meeting a net weight label require an additional one-third pound (on the average) over the packages labeled by volume, cost about $7.50 more per package, and the additional weight of beads will be discarded in actual use.

2.3.5. Incense.

(L&R, 1978, p. 151)

Interpretation

Incense labeled by count is fully informative and sufficient.

Background

The State of Oregon raised the issue of proper quantity declarations for the sale of incense. The question is what, if any, information other than count, such as weight or volume or length, is necessary for an adequate description on packages of incense. The Committee is of the opinion that a statement of count as defined in Section 6.4.1(c) of the Uniform Packaging and Labeling Regulation is fully informative and is sufficient in this case.

2.3.6. Sea shells.
(L&R, 1976, p. 223)

Guideline

Sea shells shall be sold by count and weight for packages of 50 sea shells or less and by volume and weight for packages containing more than 50 sea shells.

2.3.7. Tire Tread Rubber Products.
(L&R, 1976, p. 233)

Guideline

Tire tread rubber products shall be sold by net weight. The polyethylene film protective backing shall be part of the product and included in the net weight. The core is part of the tare and must be deducted from the gross weight to determine the net weight.

2.3.8. Wiper Blades.
(L&R, 1979, p. 182)

Interpretation

There is a trade custom of labeling automobile wiper blades by the length of the metal backing or vertebra, not the length of the blade. This is an acceptable method of sale and net contents declaration.

Background

The Committee received a request from a manufacturer of automobile wiper blades that had a problem with one state concerning the measurement of length as labeled on their packages. The state felt that the proper designation should be the length of the blade itself; the manufacturer said that traditionally the industry measured the length of the metal backing or vertebra.

The Committee, after some discussion, determined that since there was no intent to mislead customers, the traditional measurement of the metal backing or vertebra was acceptable.

2.3.13. Vegetable Oil.
(L&R, 1983, p. 208)

Guideline and Interpretation

Packaged liquid vegetable oil must be labeled by liquid volume, although net weight may also be declared.

Background

Packages of liquid vegetable oil are being sold for restaurant and other small food business use labeled by weight. It has been brought to the attention of the Committee that containers of product labeled "5 gal" look identical in dimensions to those labeled "35 lb" but the density of the vegetable oil is such that the 35 lb cans contain only about 4½ gal. The Institute of Shortening and Edible Oils indicated that companies selling liquid vegetable oils often compete with those selling solid shortening, and that a net weight comparison is useful for these purposes. Recipes for food products in large sizes sometimes provide ingredient quantities by weight or volume.

It is the opinion of the members of the Committee that packaged liquid vegetable oil must be labeled by liquid volume although a net weight may be declared in addition to the net volume statement.

When a single manufacturer of vegetable oil packages the same oil in the same size container with two such widely different net quantity statements, this practice could easily be considered (a) misleading to the customer, and (b) nonfunctional slack fill. Weights and measures enforcement action should be taken.

2.3.15. Bulk Sales.
(L&R Committee, 1986, p. 140)

When packaged or wrapped items (such as individually wrapped candies) are sold from bulk displays by weight, the price must be based on the net weight, not the weight including the individual piece wrappings. This will require (1) subtracting the weight of the bag into which the customer puts the pieces plus (2) subtracting the weight of the piece wrappings (the latter is a percentage of the gross weight – that is, the tare increases as the customer selects more of the commodity).

Background

Retail food stores are merchandising prepackaged commodities such as candies, pet food, snack bars, and bouillon cubes from bulk displays. Some retailers sell these products by gross weight. Section 1.2. of the Uniform Weights and Measures Law reads in part: "The term 'weight' as used in connection with any commodity means net weight. . ."

A workshop was held on June 20, 1986, at the U.S. Department of Commerce, Washington, D.C., to explore the issues and alternatives involved in the sale of prepackaged goods from the bulk food sales areas of supermarkets. Representatives of the packaging, supermarket, and small grocery industries, scale and point-of-sale (POS) systems manufacturers, the U.S. Food and Drug Administration, weights and measures agencies, and the National Institute of Standards and Technology attended. No final recommendations came from this meeting; however, the participants expressed an interest in meeting again after a written report of the June 20, 1986, meeting was made available and before the Interim Meetings of the NCWM in January 1987. The following issues were discussed:

1. Prepackaged commodities in bulk displays are being sold on a gross weight basis.

   Federal regulations covering packaged goods and every state Weights and Measures Law require any sale by weight to be "net weight" (not including the weight of the wrapping materials). In some areas of the nation, many items are being sold on a gross weight basis in the supermarkets, for example, fresh fruit and vegetables in poly bags in the produce area. Perhaps because of the light weight of these bags (that is, the minimum size of the scale division on the ordinary supermarket checkout scale is large with respect to the weight of the poly bags), low priority is given to correcting this sales practice, and a lack of uniformity in enforcement of the net weight requirements results. Weights and measures officials have found tare amounting to over 40 % of the gross weight in prepackaged items sold from bulk; the majority of cases seems to range from 3 % to 12 %. Officials see the need to "draw the line" in a sales practice that appears to have evolved from other practices that were not heavily monitored and corrected at their inception.

2. Retailers face technical and administrative problems in properly deducting tare from the gross weight.

   Automatic deduction of tare is preferable for large-scale retailers because of its speed. No equipment (either stand-alone scale or POS) is available at the present time that can: (1) subtract a percentage of the gross weight to represent the tare weight; or (2) subtract a fixed tare for the bag and a percentage tare for the wrapper on the prepackaged item. [Editor's Note: There is equipment now available that can deduct a tare that is a percentage of the gross weight.] Two POS system manufacturers said that new systems with percentage tare capability could be designed, but they could not definitely say whether retrofitting existing systems was possible. They said that the ability to retrofit declined with the age of the system. Supermarket representatives expressed concern that their in-store computer software would need modification above and beyond the retrofitting or software redesign that might be done by the POS manufacturers; their software is designed around current POS software.

   Deduction of tare in the bulk food area using a scale other than the checkout scale can be done more easily than at checkout if a POS system is being used. A tare look-up table used in conjunction with the scale appears to be the only currently used method that meets the net weight requirements when packaged products are sold from

bulk. (The procedure is to gross weigh the product, look up the tare, subtract it from the gross weight, and then determine a final net weight and total price.)

Each retailer will have to consider the cost of additional manpower (as the weighing and marking of the purchase in the bulk food area might require), new equipment (purchasing scales or POS systems with percentage tare capability), or retrofit of existing equipment as compared with the value of the market share contributed by the bulk marketing of prepacked commodities. However, two supermarket chain representatives said that they expected some growth in this type of sale (because of the customers' perception of cleanliness of the product, for example).

3. Present methods of sale and advertising are often misleading.

Suggestions were made that advertising on a "wrapped weight" basis would properly inform the consumer. However, it was pointed out that a typical purchaser does not know what "wrapped weight" is (i.e., gross weight). Moreover, selling packaged goods on a gross weight basis is illegal; it thwarts value comparison with other products sold by net weight.

Bulk food sales advertising often includes claims of savings of, for example, 10 % to 20 % over a purchase of the same commodity in standard-pack form. These advertising claims can be exaggerated and misleading if the comparisons referenced are between standard-pack commodities sold net weight and products sold from bulk on a gross weight basis.

The possibility of advertising a net weight unit price, but actually weighing at the checkout on a gross weight basis (and charging at a lower gross weight unit price) was discussed. For example, a sign could be posted with the following:

> "$1.50 per pound, net weight. We are not able to weigh this packaged product on a net weight basis (that is, without the wrapper), and will therefore charge you $1.40 per pound including the wrapper weight at the checkout."

Everyone agreed that advertising claims and appropriate wording would have to be chosen carefully if this is to be viable. However, those weights and measures officials present were generally opposed to this alternative based on the difficulty of enforcement and lack of assurance that a consumer would really understand explanatory signage.

2.5.6. Guidelines for NCWM Resolution of Requests for Recognition of Moisture Loss in Other Packaged Products.

(Exec, 1988, p. 94)

The Task Force on Commodity Requirements limited its work to only a few product categories, using these categories as models for addressing moisture loss. The gray-area concept is the result of this work.

Recognizing several candidates for future work in moisture loss, the Task Force recommends that the following guidelines for moisture loss be followed as far as possible by any industry requesting consideration:

1. There should be reasonable uniformity in the moisture content of the product category. For example, since pet food has final moisture contents ranging from very moist to very dry, some sub categorization of pet food needs to be defined by industry before the NCWM study of the issue.

2. The predominant type of moisture loss (whether into the atmosphere or into the packaging materials) must be specified.

3. Different types of packaging might make it necessary to subcategorize the product. For example, pasta is packaged in cardboard, in polyethylene, or other packaging more impervious to moisture loss. The industry should define the domain of packaging materials to be considered.

4. "Real-world" data is needed on the product as found in the retail marketing chain – not just laboratory moisture-loss data.

5. The industry requesting consideration of moisture loss for its product should collect data on an industry-wide basis (rather than from only one or two companies).

   Information concerning the relative fractions of imported and domestically produced product should be available, for example, in order to assess the feasibility of interacting with the manufacturer on specific problem lots.

6. Moisture loss may occur either:

   - during manufacturing; or

   - during distribution.

   Data will be needed to show the relative proportion of moisture loss in these different locations since moisture loss is permitted only under good distribution practices. Geographical and seasonal variations may apply.

7. A description of the processing and packaging methods in use in the industry will be of great value, as will a description of the distribution system and time for manufacturing and distribution. A description of the existing net quantity control programs in place should be given, together with information on how compliance with NIST Handbook 133 is obtained. A description of maintenance and inspection procedures for the scales should be provided, together with information on suitability of equipment and other measurements under Handbook 44.

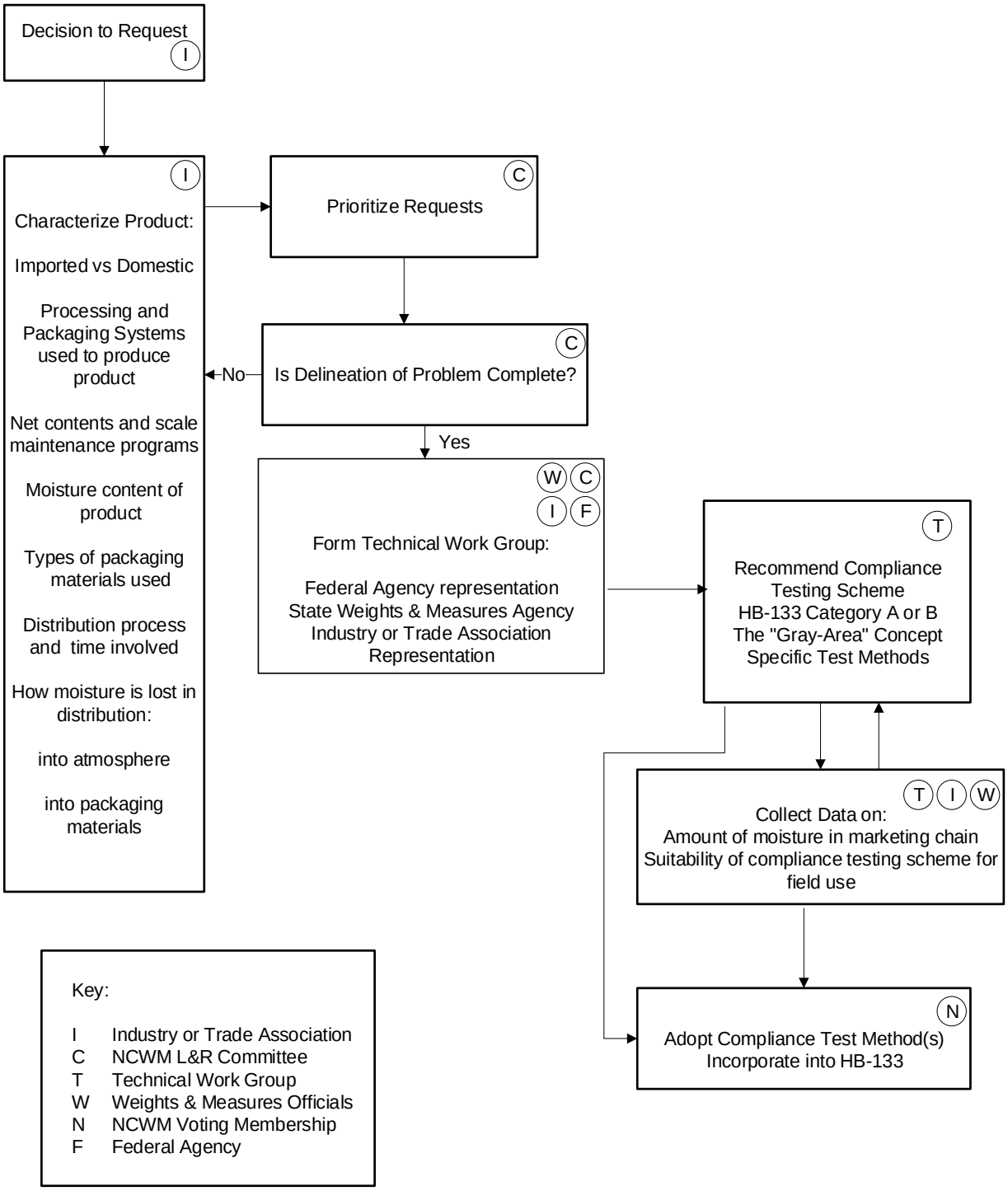
8. A description of federal and local agency jurisdiction and test should be given, as well as any regulatory history with respect to moisture loss and short weight. Has weights and measures enforcement generated the request? What efforts have addressed the moisture loss issue prior to approaching the NCWM? Are the appropriate federal agencies aware of the industry's request to the NCWM?

9. The industry should propose the type of compliance system and/or moisture determination methodology to be used. The compliance scheme, if it contains industry data components, should be susceptible to verification (examples: USDA net weight tests for meat; exchange of samples with millers for flour) and should state what the companies will do to provide data to field inspection agencies in an ongoing fashion (as the gray-area approach requires). If in-plant testing is to be combined with field testing, who is to do such testing, and how is this to be accomplished? It should be possible to incorporate the proposed testing scheme into Handbook 133 to be used with Category A or B sampling plans.

When all the preliminary information recommended above has been collected, a field test of the proposed compliance scheme should be conducted by weights and measures enforcement officials to prove its viability.

See the plan diagrammed on the next page.

Plan for NCWM Resolution of Individual Request for Recognition of Moisture Loss



2.6.1. Retail Gas Sales and Metric Price Computations in General.

(S&T, 1980, p. 227)

Guideline

The National Institute of Standards and Technology published equivalent rounded values for metric equivalents of U.S. customary units should be used. They are:

3.785 411 784 liters = 1 gallon

0.264 172 052 4 gallon = 1 liter

A "Rule of Reason" should apply to the corrected value so that the value used is consistent with the quantity of the transaction. The converted value should never have fewer than four significant digits and should have at least the same number of significant digits as the number of significant digits in the quantity of product being converted. For example, if a 1000 gal delivery were to be converted to liters the value would be 3785 L; for 10 000 gal, 37 854 L; for 100 gal, 378.5 L.

In the case of expressing a unit price equivalent for consumer value comparisons in retail gasoline sales, the following formula should be used: (advertised, posted, or computing device unit price per liter) × 3.785 = (equivalent unit price per gallon, rounded to the nearest 1/10 cent.)

Examples:
26.9 cents per liter × 3.785 = $1.018 per gallon
26.8 cents per liter × 3.785 = $1.014 per gallon
26.7 cents per liter × 3.785 = $1.011 per gallon
26.5 cents per liter × 3.785 = $1.003 per gallon
26.4 cents per liter × 3.785 = $0.999 per gallon

This method is preferable to the alternative method of dividing the price per gallon by 3.785, which results in the same price per liter for three or more different prices per gallon when rounded to the 1/10 cent.

2.6.2. Price Posting.

(L&R, 1981, p. 101)

Guideline

1. Street Signs.

    a. Until such time as the sale of gasoline and other Engine fuels is predominately by metric measurement (liter), price per gallon information should be made readily available to all prospective customers.

    b. All street, roadside, and similar advertising signs displaying product price should provide price per gallon information.

    c. Signs showing the equivalent price per liter may also be used, but their use is optional and should not employ numerals larger than the equivalent gallon price display.

    d. Signs should show complete dollar and cents numerals, and they should be clearly legible and of full size. An exception should be granted to street signs that were designed to display only three numerals (e.g., $.899) and not four numerals as required for prices over $1.00 per gallon (e.g., $1.259). Until such signs can be replaced or modified, it would be acceptable:

(1) to attach an appropriate sign extension with the decimal fraction of a cent representation in alignment with the posted price;

(2) to include a smaller fraction of a cent representation with the last numeral of the posted price; or

(3) to add the whole number "one" before the cents values.

e. The changeover to advertising prices by the liter as a single mode of pricing should be established when 75 % of all retail outlets in a jurisdiction have converted their dispensers to metric measurement.

2. Posting of Prices at the Dispenser.

Each retail outlet should use exclusively only one measurement method of sale (gallon or liter). A change from one method to another should be carried out for all devices dispensing motor fuels in the retail outlet.

In the case of liter sales, suitable posting of per gallon and per liter prices at the device, service island, premises of the retail outlet, or any other locations must be in accordance with state and local laws, regulations, and ordinances, and in a manner that facilitates consumer comparisons between the per gallon price and the per liter price. Additional requirements may be necessary to avoid uncertainty as to nomenclature, location, and size of information on signs.

It is recommended that:

a. Current and accurate price comparisons between gallon and liter values be posted at the dispenser within easy view of the customer and visible from either side of the island.

b. The sign should show equivalent quantity and price information.

Examples:
27.1¢ per liter = $1.026 per gallon
3.785 liters = 1 gallon

c. Letters and numerals should be at least 3/4 in (19 mm) in height and 1/8 in (3 mm) in width of stroke.

3. Quantity and Price Display on Dispensers

It is required that dispensers be designed to clearly show all required quantity and price information on the face(s) of a motor fuel dispenser in accordance with NIST Handbook 44.

4. Dispenser Modification Kits

As an interim alternative to "half pricing," a number of computer modification kits have been installed to modify existing retail motor fuel dispensers that were not designed to compute and indicate prices over 99.9¢ per gallon.

Some of the modification kits that have been referred to state weights and measures officials for approval have been rejected as failing to conform to NIST Handbook 44 requirements. It is recommended that all modification kits and future modifications of dispensers be so designed and made as to be in full compliance with all applicable requirements of NIST Handbook 44.

2.6.3. Octane Posting Regulations.

(Liaison, 1979, p. 240)

Guideline

Weights and Measures officials should report to the FTC any instances of failure to post octane ratings by service stations. These would most likely occur during routine inspections of service station gasoline dispensers. Reports should be made to the appropriate FTC regional offices as listed below.

Background

As of June 1, 1979, the FTC requires the determination of octane ratings by refiners, the certification of octane ratings by refiners and distributors, and the posting of octane ratings by retailers on all gasoline pumps. The requirements are set forth in Public Law 95 297, the Petroleum Marketing Practices Act (PMPA), passed in June 1978 and the FTC's Octane Rule, Automotive Fuel Ratings, Certification and Posting, **16 C.F.R. § 306**. Although the octane posting rule has no effect on most FTC programs administered by state weights and measures officials with respect to checking gasoline dispensing devices for accuracy, the Liaison Committee feels that the NCWM should be generally informed about the law and the FTC rule, if only to be prepared to answer inquiries about it or for some probable future enforcement demands. Keeping apprised of developments associated with the rule may be advisable. In addition, it will affect states which have octane certification and posting programs.

Information on the FTC Regional Offices can be obtained at **www.ftc.gov/about-ftc/bureaus-offices/regional-offices** or by mail Consumer Response Center, Federal Trade Commission, 600 Pennsylvania Avenue, NW, Washington, DC 20580. Telephone: (202) 326-2222.

The preemption section of PMPA (204) reads as follows:

Section 204. To the extent that any provision of this title applies to any act or omission, no state or any political subdivision thereof may adopt, enforce, or continue in effect any provision of any law or regulation (including any remedy or penalty applicable to any violation thereof) with respect to such act or omission, unless such provision of such law or regulation is the same as the applicable provision of this title.

Section 204 prohibits states and other political subdivisions from enforcing requirements that are not the same as the applicable provisions of this law. Jurisdictions having octane requirements should carefully review with their legal advisors the effect of this law.

The FTC's Octane rule was published in final form on March 30, 1979, in the Federal Register (Vol. 44, No. 63, Part V, pp. 19160 19172). The rule became effective June 1, 1979.

The law requires that refiners determine octane ratings of their products, and certify them to their distributors. The distributors must pass along the certification to the retailer, unless he blends the gas, in which case he may have to certify his blend.

A similar procedure relating to the posting of octane ratings is set forth for the retailer. The FTC is responsible for enforcement with respect to the accuracy of the certified ratings. The FTC is also empowered to check records, which must be retained for one year by each link in the distribution chain.

The FTC is in need of help from the state and local jurisdictions in the area of surveillance and testing. Such assistance could occur at a number of levels. Notice of octane mislabeling and failure to post octane ratings is requested.

Other levels of assistance would concern jurisdictions that have octane testing programs and would be interested in cooperating with FTC in testing or in reporting discrepancies in octane rating.

2.6.4. Multi-Tier Pricing: Motor Fuel Deliveries (Computing Pumps or Dispensers).

(L&R, 1982, p. 150; L&R, 1985, p. 100) (L&R, 1988, p. 162)

Policy

Charging different prices for the same product depending upon the manner of payment, other purchases, amount of service, etc., is a management decision of the merchandiser. Those merchants who elect to offer multiple prices for motor fuel must comply with the state and local weights and measure laws and regulations, including Handbook 44. They must also make marketing decisions that comply with state truth in lending, cash discount, price advertising, and usury laws. All such laws are intended to prohibit deceptive, misleading, or misrepresentative information being given to the consumer. The following guidelines are intended to apply to price advertising or posting at the street side or highway as well as at the pump or dispenser, and to the price computed at the device. These guidelines are applicable to other discount or combination offers (such as combination purchases of car wash and gas, for example).

1. If a price is posted or advertised, it must be available to all qualified customers. If any condition or qualification is required to obtain the posted price, that condition must also be posted clearly and understandably, in conjunction with the price wherever it is posted.

2. The lowest price may be posted or advertised by itself as long as any restrictions for receiving that price (for example, "cash only") are also clearly posted or advertised in conjunction with the price and as long as other state requirements do not prohibit it. For example, certain states require that all prices available from a given retail location must be posted on street side signs if any prices are posted.

3. If the merchandiser elects to establish separate devices or islands for sale of the same product at different prices, the devices or islands shall be clearly identified as "cash," "credit," "self-serve," or other appropriate wording to avoid customer confusion.

4. The use of a single-price-computing dispenser for sale of motor fuel at multiple unit prices is inappropriate, facilitates fraud, and should be eliminated. The NCWM should adopt a plan and timetable for changeover to devices that can compute and display final money values for multiple prices.

2.6.5. Cereal Grains and Oil Seeds.

(L&R, 1981, p. 95; L&R, 1996, p. 135)

Interpretation

The addition of water to grain for the purpose of adding weight prior to selling grain by weight is an illegal practice under federal laws.

NOTE: *Effective February 11, 1995, the Federal Grain Inspection Service adopted a regulation in Prohibited grain handlings practices,* ***7 C.F.R. § 800.61*** *prohibiting the application of water to grain except for milling, malting, or similar processing operations. See Volume 59, No. 198 for Friday, October 14, 1994, or page 52 071, for additional information.*

Background

A letter from the Oklahoma Grain and Feed Association was forwarded to the Committee asking whether the addition of water to grain is legal. The request was prompted by an article reporting on methods of adding water to grain to bring the moisture content up to market standards. For example, when soybeans are sold at 8 % moisture content, there is less weight sold (and less revenue for the soybeans to the seller) than if water were added to the same soybeans to bring them to 10 % moisture content.

However, the Committee is greatly concerned about the ramifications of such practices. Many grain experts do not believe that over-dried grain should be valued as highly as grain at moisture contents close to market standards. Overly dry grain is more susceptible to breakage, for example.

Water added after harvest will not be taken up chemically the way that naturally moist grain binds water. Errors in adding water or the particular biochemical nature of the grain after addition of water can lead to spoiled grain. Studies on the long term keeping qualities of grain with water added have not been carried out. The calibration of moisture meters is based on naturally moist grain, and there is a known difference between the electrical properties of naturally moist grain and grain with moisture added.

Of a more basic nature, however, the Committee recognizes the fact that a grain buyer purchases grain expecting such grain to be naturally moist or dried, not to be with water added. The seller who adds water to grain solely to add weight, therefore, misrepresents his product.

Both the FDA and USDA have sent letters to the Committee indicating that the addition of water to grain solely for the purpose of adding weight is an illegal practice. Because existing federal laws already prohibit this practice, the Committee recommends no further action on the part of the NCWM at this time.

2.6.6. Basic Engine Fuels, Petroleum Products, and Lubricants Laboratory.

(L&R, 1994, p. 129-135; L&R, 2006, p. L&R-8) (Developed by the Petroleum Subcommittee.)

The petroleum fuels and lubricants laboratory is an integral element of an inspection program and is generally developed to satisfy the testing requirements as described in the laws and rules of the regulating agency. Guidelines have been developed to assist states in evaluating their options of employing a private lab or building or expanding their own lab. (Refer to NIST SP 1053 Report of the 91st NCWM Annual Meeting (2006) - refer to Appendix C., Item 250-1: Basic Engine Fuels, Petroleum Products, and Lubricants Laboratory Guidelines on L&R C-1. (**www.nist.gov/pml/owm/national-council-weights-and-measures-ncwm-related-reports**).

2.6.7. Product Conformance Statements.

(L&R, 1992, p. 148)

Interpretation

References to a product's conformance with product standards (for example, "manufactured to standard EN235" or similar product conformance statements) on labels for wallcovering or other products, are not considered qualifying terms and do not violate Section 6.12.1. Supplementary Quantity Declarations of the Uniform Packaging and Labeling Regulation, provided the requirements of Section 8.1.4. Free Area is met.

Background

The Wallcovering Manufacturers Association (WMA) requested the NCWM position on the use of conformance statements on the labels of wallcovering and border material. This issue relates to wallcovering products that originate from manufacturers in Europe where a declaration of conformance to a specific government standard is required on consumer packages. Thousands of product "standards" or "Euronorms" are being established for the European Community. Conformance declarations are required to provide consumers and customs officials with information on the product. The issue relates to the use of such statements as "manufactured to standard EN235" on labels of wallcovering that are imported from Europe. The WMA requested the Committee's opinion on the use of this type of statement if a package is labeled in conformance with sections Section 6.12.1. Supplementary Quantity Declarations and Section 8.1.4. Free Area. One question is whether the display of the conformance statement would be permitted provided that it did not include an unacceptable quantity declaration. Another question concerns the need to comply with the requirement for adequate free area around the quantity declaration when the conformance declaration is placed on the label. It was the Committee's opinion that conformance statements on package labels would not violate any provisions of the UPLR if the requirements of Sections 6.12.1. Supplementary Quantity Declarations and 8.1.4. Free Area are met.

The Committee recommended this interpretation for inclusion in Handbook 130 because it is likely that this type of notice will become common as more and more free market trading areas are opened to expand international trade.

This interpretation does not indicate acceptance or endorsement of any requirements contained in product conformance statements.

2.6.8. Commodities Under FTC Jurisdiction under the Fair Packaging and Labeling Act (FPLA) and Exclusions.
(L&R, 1993, p. 279; L&R, 1994, p. 294)

The following lists indicate the commodities and commodity groups that are and are not within the scope of the Fair Packaging and Labeling Act administered by the FTC. The following codes appear with each excluded commodity and designate the reason that the particular commodity has been excluded.

CI (Commission Interpretation) – designates those categories that have been excluded by the Commission in the light of legislative history of the definition of "consumer commodity." By applying this definition to individual commodities, the Commission has more narrowly applied the latter term and set forth a list of items that do not meet the criteria of consumer commodities. On occasion the Commission is requested in both a formal and informal manner to consider individual products and to determine their status relative to the definition of "consumer commodity" as it is used in the Act.

EPA – designates commodities subject to the Federal Environmental Pest Control Act of 1972 administered by the Environmental Protection Agency.

FDA – designates those commodities which are subject to regulation by the FDA either under the portion of the FPLA administered by that agency or the Federal Food, Drug, and Cosmetic Act (Section 10(a)(3) and Section 7 of the FPLA). Following the code FDA will be a letter further designating the commodity as either a food (F), drug (D), cosmetic (C), or device (DV).

TTB (formerly known as BATF) – designates commodities subject to laws administered by the Alcohol, and Tobacco Tax, and Trade Bureau.

USDA – designates those commodities excluded from jurisdiction by Section 10(a) of the FPLA and represents a commodity within one of the following categories: meat or meat products, poultry or poultry products, or tobacco or tobacco products.

It may be of some help in ascertaining whether a particular product is or is not included within the FPLA definition of "consumer commodity" and thus subject to FTC jurisdiction under that Act, to refer to the following definition:

". . . Any article, product, or commodity of any kind or class which is customarily produced or distributed for sale through retail sales agencies or instrumentalities for consumption by individuals, or use by individuals for purposes of personal care or in the performance of services ordinarily rendered within the household, and which is usually consumed or expended in the course of such use."

By applying these criteria to the particular product in question and then reviewing the list of excluded commodities, the observer will be able, in most instances, to determine the status of the item. In the event, however, that the observer is unable to ascertain whether a particular commodity is covered or excluded from FTC jurisdiction, contact FTC for an opinion.

Commodities Included Under FTC Jurisdiction	
Soaps and Detergents	Powder, flakes, chips, etc. Liquid Paste, cake, or tablet
Cleaning Compounds	Liquid Powder Paste or cake Solvent and cleaning fluids for home use
Laundry Supplies	Conditioners and softeners, ironing aids, distilled water Sizings and starches Bluings and bleaches Pre-soaks, enzymes, etc.
Cleaning Devices	Sponges and chamois Steel wool, scouring and soap pads
Food Wraps	Plastic and cellophane Wax paper and paper Foil (aluminum wrap)
Paper Products	Toweling Napkins, table cloths, and place mats Facial tissues Bathroom tissues Disposable diapers Crepe paper Other (e.g., shelf paper, wrapping paper, eye glass tissues)
Waxes and Polishes	Powder Liquid Paste and cake Other (e.g., polish impregnated cloths, scratch removers)
Household Supplies	Matches Candles Toothpicks Cordage (string, twine, rope, clothes line, etc.) Drinking straws Lighter and propane torch fuel, flints, pipe cleaners, etc. Lubricants Picnic supplies Sandpaper and emery paper
	Charcoal briquets, chips, logs, etc. Dyes and tints
	Camera film, photo supplies and chemicals

Commodities Included Under FTC Jurisdiction	
	Protective foil cooking utensils Aluminum foil cooking utensils Christmas decorations Solder LPG for other than home heating or cooking Waxes for home use Light bulbs Dry cell batteries Pressure sensitive tapes, excluding gift tapes
Containers	Paper (plain, waxed, or plastic coated) Foil Plastic or Styrofoam
Air Fresheners and Deodorizers	Potpourri
Adhesives and Sealants	
Cordage	

Commodities Excluded from FTC Jurisdiction		
Term	**Description**	**FTC Jurisdiction**
Adhesive Tape		FDA-D
Alcoholic Beverages		TTB
Aluminum Clothesline	Plastic clothesline with a steel core	CI
Antifreeze		CI
Artificial Flowers and Parts		CI
Automotive Accessories	Floor mats, seat covers, spare parts, etc.	CI
Automotive Chemical Products	Auto polish, wax, and finish conditioner, rubbing compound, tire paint, chrome polish, gasoline additives, etc.	CI
Bath Oil and Bubble Bath		FDA-C
Bicycle Tires and Tubes		CI
Books		CI
Bottled Gas	Cooking or heating	CI
Brushes	Bristle, nylon, etc., including hair-brushes, toothbrushes, hand and nail brushes, paint brushes, etc.	CI
Brooms and Mops	Glass, floor, and dish mops, etc.	CI
“Bug Proof” Shelf Paper		EPA
Candle Holders	Without candles	CI
Cameras		CI

Commodities Excluded from FTC Jurisdiction		
Term	**Description**	**FTC Jurisdiction**
Chinaware		CI
Christmas Light Sets	Replacement or other bulbs sold separately are not excluded	CI
Cigarette Lighters		CI
Clothespins		CI
Clothing and Wearing Apparel	Socks, gloves, shoelaces, underwear, etc.	CI
Compacts and Mirrors		CI
Cosmetics	Defined by Section 201(i) of the Food, Drug, and Cosmetic Act as "(l) articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance, and (2) articles intended for use as a component of any such articles; except that such term shall not include soap."	FDA-C
Cotton Puffs	Sterilized	FDA-D
Crystalware		CI
Detergent Bar with Any Drug or Cosmetic Claim	If the observer experiences difficulty in ascertaining whether or not a given product is a soap or a detergent, contact the manufacturer or FDA.	FDA-D or C
Decorative Magnets		CI
Devices	Defined by Section 201(h) of the Food, Drug, and Cosmetic Act as "instruments, apparatus, and contrivances, including their components, parts, and accessories, intended (1) for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; or (2) to affect the structure or any function of the body of man or other animals." This category includes trusses, syringes, arch supports, etc.	FDA-DV
Diaries and Calendars		CI
Disinfectants		EPA
Drugs	Defined by Section 201(g)(1) of the Food, Drug, and Cosmetic Act as "(a) articles recognized in the official United States Pharmacopeia, official Homeopathic Pharmacopeia, or official National Formulary, or any supplement to any of them; and (b) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; and (c) articles (other than food) intended to affect the structure or any function of the body of man or other animals; and (d) articles intended for use as a component of any articles specified in clause (a), (b) or (c); but does not include devices or their components, parts, or accessories."	FDA-D
Durable Articles or Commodities		CI

Commodities Excluded from FTC Jurisdiction		
Term	**Description**	**FTC Jurisdiction**
EPA Covered Products	Products subject to regulation under the Federal Environmental Pesticide Control Act that is administered by the Environmental Protection Agency.	EPA
Fingernail Files		CI
Flowers, Flower Seeds, Fertilizer, and Fertilizer Materials, Plants or Shrubs, Garden and Lawn Supplies		CI
Food	Defined by Section 201(f) of the Food, Drug, and Cosmetic Act as "(1) articles used for food and drink for man or other animals, (2) chewing gum, and (3) articles used for components of any such article."	FDA-F
Fountain Pens, Mechanical Pencils, and Kindred Products	Ball point pens, lead pencils, and lead refills, etc.	CI
Garden Tools	Hoses, trowels, grass clippers, etc.	CI
Germ Killing or Germ Proofing Products		EPA
Gift Tape and Ties	Ribbon, tape, etc.	CI
Gift Wrapping Material	Decorative wrapping foil, paper, cellophane, etc.	CI
Glasses and Glassware	Disposable plastic glasses are not excluded	CI
Gloves (of Any Type)		CI
Greeting Cards		CI
Hair Combs, Nets, and Pins		FDA-DV
Hand Tools		CI
Handicraft and Sewing Thread	Yarn, etc.	CI
Hardware	Extension cords, thumb-tacks, hose clamps, nails, screws, picture hangers, etc.	CI
Household Appliances, Equipment, or Furnishings, Including Feather and Down-Filled Products, Synthetic-Filled Bed Pillows, Mattress Pads and Patchwork Quilts, Comforters, and Decorative Curtains		CI
Ink		CI
Insecticides	Insect repellents in any form, mothballs, etc.	EPA

Commodities Excluded from FTC Jurisdiction		
Term	**Description**	**FTC Jurisdiction**
Ironing Board Covers		CI
Jewelry		CI
Lambs Wool Dusters		CI
Luggage		CI
Magnetic Recording Tape	Reels, cassettes, and cartridges.	CI
Meat and Meat Products		USDA
Metal Pails		CI
Motor Oil	Including additives. Household multi-purpose oil is not excluded.	CI
Mouse and Rat Traps		CI
Mouthwash		FDA-D
Musical Instruments		CI
Paints and Kindred Products	Wallpaper, turpentine, putty, paint removers, caulking and glazing compounds, wood fillers, etc. Note, however, that bathroom caulking materials, patching plaster, spackling compound, and plastic wood are not excluded. In the event of uncertainty, contact FTC.	CI'
Paintings and Wall Plaques		CI
Pet Care Supplies		CI
Pewterware		CI
Photo Albums		CI
Pictures		CI
Plastic Buckets and Garbage Cans		CI
Plastic Tablecloths, Plastic Place Mats		CI
Plastic Shelf Lining		CI
Pre-Moistened Towelettes		FDA-C
Polishing Cloths	Polishing cloths that are impregnated with polish or chemicals (silicone, etc.) are not excluded.	CI
Poultry and Poultry Products		USDA
Rubber Gloves		CI
Rubbing Alcohol		FDA-D
Safety Flares		CI
Safety Pins		CI
Sanitary Napkins		FDA-D or C

Commodities Excluded from FTC Jurisdiction		
Term	**Description**	**FTC Jurisdiction**
School Supplies	Rulers, crayons, paper, pencils, etc.	CI
Self-Stick Protective Felt Tabs		CI
Seeds of All Kinds		USDA
Sewing Accessories	Needles of any type, thimbles, kindred articles, etc.	CI
Shampoo		FDA-C or D
Shoelaces		CI
Small Arms Ammunition		CI
Silverware, Stainless Steelware, and Pewterware		CI
Smoking Pipes		CI
Soap Bars with a Drug Claim	Including any claim for removing facial blemishes, etc. Refer to Detergent Bars for further discussion in this area.	FDA-D
Soap Dishes		CI
Souvenirs		CI
Sporting Goods		CI
Stationery and Writing Supplies	Loose-leaf binders, paper tablets, etc.	CI
Textiles and Items of Wearing Apparel	Cloth laundry bags, towels, cheese cloth, shoe shine cloths, etc.	CI
Tobacco and Tobacco Products	Pipes, cigarettes, etc.	TTB - USDA
Toothpaste		FDA-D
Toys		CI
Typewriter Ribbon		CI
Wire of Any Type		CI
Woodenware		CI

2.6.9. Size Descriptors for Raw, Shell-On Shrimp Products.

(L&R, 1995, p. 97)

Guideline

If size descriptor terms for shrimp (e.g., small, medium, large, or colossal) are used on packages, advertisements, or on signs when offering shrimp for sale from bulk, a statement of count-per-kilogram, if sold by kilogram, or count-per-pound, if sold by pound, should be included adjacent to the size descriptor (e.g., medium-large, 31 to 40 shrimp per pound).

2.6.10. Model Guidelines for the Administrative Review Process.

Purpose

These guidelines are provided to assist weights and measures programs in establishing an administrative review process. They are not intended to be the only process an agency may use nor are they intended to supersede any agency's existing process. Before implementing ANY process, it should be approved by legal counsel.

These guidelines ensure that persons affected by "inspection findings" (e.g., price misrepresentations or shortweight packages), or who are deprived of the use of their property (devices or packages placed under "stop" or "off-sale" order), are provided a timely-independent review of the action. The process enables affected persons to provide evidence which could be relevant in determining whether the enforcement action was proper. The purpose of the process is to ensure that a person's ability to conduct business is not hindered by improper enforcement actions. This process is independent of any other action (e.g., administrative penalties, prosecutions, etc.) that may be taken by the enforcement agency.

Background

In the course of their work, weights and measures officials take enforcement actions that may prohibit the use of devices or the sale of packaged goods (e.g., "stop-sale" or "off-sale" orders for packages and "stop-use" or "condemnation" tags issued on devices). Improper actions (e.g., not following prescribed test procedures, enforcing labeling requirements on exempted packages, or incorrectly citing someone for a "violation") place the official and the jurisdiction in the position of being liable for the action if it is found that the action was "illegal." In some cases, weights and measures jurisdictions could be ordered to pay monetary damages to compensate the affected party for the improper action.

This process is one way to provide affected persons an opportunity to present evidence which may be relevant in determining whether the order or finding has been properly made to an independent party. The procedure enables business operators to obtain an independent review of orders or findings so that actions affecting their business can be evaluated administratively instead of through litigation. This ensures timely review, which is essential because of the impact that such actions may have on the ability of a business to operate and in cases where perishable products may be lost.

Review Provisions

Parties affected by enforcement actions must be given the opportunity to appeal enforcement actions.

Inspectors are the primary contacts with regulated firms and thus are in the best position to ensure that the enforcement actions they take are "proper." "Proper" means that inspections are conducted (1) within the scope of the authority granted by law, (2) according to recognized investigative or testing procedures and standards, and (3) that enforcement actions are lawful. The "burden" for proving that actions are "proper" falls on the weights and measures program, not on regulated firms.

Weights and measures officials are law enforcement officers. Therefore, they have the responsibility to exercise their authority within the "due process" provisions of the U.S. Constitution. As weights and measure programs carry-out their enforcement responsibilities in the future, more and more challenges to their actions and authority will occur. It is in the best interest of any program to establish strict operational procedures and standards of conduct to prevent the occurrence of improper actions which may place the jurisdiction in an untenable position in a court challenge of an enforcement action. The foundation for ensuring "proper" actions is training, clear and concise requirements, and adoption of, and adherence to uniform test procedures and legal procedures.

Prior to taking enforcement actions the inspector should recheck test results and determine that the information on which the action will be taken is accurate.

Inspections shall be conducted with the understanding that the findings will be clearly and plainly documented and reviewed with the store's representative.

During the review of the findings, the firm's representative may provide information which must be used by the inspector to resolve the problems and concerns before enforcement actions are taken. In some cases, the provided information may not persuade the inspector to forego the action. In some cases, the inspector and business representative may not understand the circumstances surrounding the violations, or there may be a conflict between the parties that they cannot resolve. In other cases, the owner or manufacturer may not learn that an enforcement action has occurred until long after the inspector leaves the establishment.

Steps:

1. Provide a framework that will help in resolving most of these situations where "due process" is of concern. Make sure that the responsible party (e.g., as declared on the package label) is notified of violations and receives copies of inspection reports. Establish standard operating procedures to assure the affected party of timely access to a representative of the weights and measures program so that the firm can provide the relevant information or obtain clarification of legal requirements.

2. Make the process as simple and convenient as possible. Especially in distant or rural areas where there are no local offices, the review should be conducted by a supervisor of the official taking the action if agreed to by the person filing the request for review.

3. The process should include notice that the firm can seek review at a higher level in the weights and measures program or an independent review by a third party. The following procedures are recommended:

   (a) Any owner, distributor, packager, or retailer of a device ordered out of service, or item or commodity ordered "off-sale," or inspection finding (e.g., a price misrepresentation or a shortweight lot of packages) shall be entitled to a timely review of such order, to a prompt, impartial, administrative review of such off-sale order or finding.

   A notice of the right to administrative review should be included on all orders or reports of findings or violations and should be communicated to the responsible firm (e.g., person or firm identified on the product label):

   > Sample Notice
   >
   > You have the right to an Administrative Review of this order finding. To obtain a review, contact the Director of Weights and Measures by telephone or send a written request (either postmarked, faxed, or hand delivered) to:
   >
   > (Name, Address, or Fax Number of the Director or other Designated Official)
   >
   > Your request should reference any information that you believe supports the withdrawal or modification of the order or finding.

   (b) The administrative review shall be conducted by an independent party designated by the Director or before an independent hearing officer appointed by the Department. The officer shall not be a person responsible for weights and measures administration or enforcement.

   (c) No fees should be imposed for the administrative review process.

   (d) The firm responsible for the product or the retailer may introduce any record or other relevant evidence.

For example:

i. Commodities subject to the off-sale action or other findings were produced, processed, packaged, priced, or labeled in accordance with applicable laws, regulations or requirements.

ii. Devices subject to the "stop-use" order or "condemnation" were maintained in accordance with applicable laws, regulations or requirements.

iii. Prescribed test procedures or sampling plans were not followed by the inspector.

iv. Mitigating circumstances existed which should be considered.

(e) The reviewer must consider the inspector's report, findings, and actions as well as any evidence introduced by the owner, distributor, packager, or retailer as part of the review process.

(f) The reviewer must provide a timely written recommendation following review unless additional time is agreed to by the department and the petitioner.

(g) The reviewer may recommend to the Department that an order be upheld, withdrawn or modified. If justified the reviewer may recommend other action including a reinspection of the device or commodity based upon information presented during the review.

(h) All actions should be documented and all parties advised in writing of the results of the review. The report of action should be detailed in that it provides the reasons for the decision.

2.6.11. Good Quantity Control Practices.

Good Quantity Control Practices means that the plant managers should take all reasonable precautions to ensure the following quantity control standards or their equivalent are met:

1. A formal quantity control function is in place with authority to review production processes and records, investigate possible errors, and approve, control, or reject lots.

2. Adequate facilities (e.g., equipment, standards, and work areas) for conducting quantity control functions are provided and maintained.

3. A quantity control program (e.g., a system of statistical process control) is in place and maintained.

4. Sampling is conducted at a frequency appropriate to the product process to ensure that the data obtained is representative of the production lot.

5. Production records are maintained to provide a history of the filling and net content labeling of the product.

6. Each "production lot" contains on the average the labeled quantity and the number of packages exceeding the specified maximum allowable variation (MAV) value in the inspection sample shall be no more than permitted in Table 2-1. Sampling Plans for Category A and Table 2-2. Sampling Plans for Category B found in NIST Handbook 133, Appendix A.

7. Packaging practices are appropriate for specific products and measurement procedures (e.g., quantity sampling, density and tare determinations) and guidelines for recording and maintaining test results are documented.

8. Personnel responsible for quantity control follow written work instructions and are competent to perform their duties (e.g., background, education, experience and training). Training is conducted at sufficient intervals to ensure good practices.

9. Recognized procedures are used for the selection, maintenance, adjustment, and testing of filling equipment to insure proper fill control.

10. Weighing and measuring devices are suitable for their intended purpose. Recognized policies and procedures are established and followed to maintain metrological traceability to the International System of Units (SI) through the NIST. This includes a system of equipment maintenance and calibration to include recordkeeping procedures.
    (Amended 2019)

11. Controls over automated data systems and software used in quantity control ensure that information is accessible, but changeable only by authorized personnel.

12. Tare materials are monitored for variation. Label changes are controlled to ensure net quantity matches labeled declaration.

2.6.12. Point-of-Pack Inspection Guidelines.

A. Weights and Measures Officials' Responsibilities.

1. Conduct inspections during hours when the plant is normally open for business. Open the inspection by making contact with the plant manager or authorized representative (e.g., the quality assurance manager or the production manager).

2. Present the proper credentials and explain the reason for the visit (e.g., routine or follow-up inspection or consumer complaint).

3. Request access to quantity measurement equipment in the packing room, moisture testing equipment in the laboratory or in the packing room, and product packed on premise or stored in warehouse areas.

4. Obtain permission from a plant representative prior to using a tape recorder or a camera.

5. Conduct inspection related activities in a professional and appropriate manner and, if possible, work in an area that will not interfere with normal activities of the establishment.

6. Abide by all the safety and sanitary requirements of the establishment and clean the work area upon completion of the inspection/test. Return borrowed equipment and materials.

7. To close the inspection, recheck inspection reports in detail and ascertain that all information is complete and correct.

8. Sample questions and tasks for Inspectors:

   (a) Inside Buildings and Equipment.

      i. Is all filling and associated equipment in good repair?

      ii. Are net content measurement devices suitable for the purpose being used?

      iii. Are standards used by the firm to verify device accuracy traceable to NIST?

   (b) Packing Room Inspection.

      i. Observe if the program for net quantity of content control in the packing room is actually being carried out.

ii. Ensure that the weighing systems are suitable and tare determination procedures are adequate. If there are questions regarding tare determination, weigh a representative number of tare and/or filled packages.

iii. For products labeled and filled by volume and then checked by weight, ensure that proper density is used.

(c) Warehouse Inspection.

If an inspection is conducted:

i. Select lot(s) to be evaluated.

ii. Determine the number of samples to be inspected. Use the appropriate sampling plan as described in NIST Handbook 133, "Checking the Net Content of Packaged Goods."

iii. Randomly select the number of samples or use a mutually agreed on plan for selecting the samples.

iv. Determine the average net quantity of the sample and use the standard deviation factor to compute the Sample Error Limit (SEL) to evaluate the lot.

v. Look for individual values that exceed the applicable Maximum Allowable Variation as found in NIST Handbook 133.

vi. Apply moisture allowances, if applicable.

vii. Review the general condition of the warehouse relevant to package integrity, good quantity control, and distribution practices.

viii. Prepare an inspection report to detail findings and actions.

9. Close the inspection - Review findings with Plant Representative.

After the inspection, meet with the management representative to discuss inspection findings and observations. Provide additional information as needed (e.g., information on laws and regulations or explanations of test procedures used in the inspection). Be informative, courteous and responsive. If problems/violations are found during the inspection/test, bring them to the attention of the appropriate person.

B. Plant Management Responsibilities.

1. Recognize that inspectors are enforcing a federal, state or local law.

2. Assist the official in conducting inspection activities in a timely and efficient manner.

3. During the initial conference with the inspector, find out whether the inspection is routine, a follow-up, or the result of a consumer complaint. If a complaint, obtain as much information as possible concerning the nature of the complaint, allowing for an appropriate response.

4. The plant manager, quality assurance manager, or any designated representative should accompany the inspector.

5. Plant personnel should take note of the inspector's comments during the inspection and prepare a detailed write-up as soon as the inspection is completed.

6. When an official presents an inspection report, discuss the observations and, if possible, provide explanations for any changes deemed necessary as a result of the inspection/test.

Plant Management: information that must be shared with the inspector.

1. Establishment name and address.
2. Type of firm and information on related firms or applicable information (e.g., sub-contractor, servant, or agent).
3. General description and location of shipping and storage areas where packaged goods intended for distribution are stored.
4. Commodities manufactured by or stored at the facility.
5. Names of responsible plant officials.

Plant Management: information that may be shared with the inspector.

1. Simple flow sheet of the filling process with appropriate net content control checkpoints.
2. Weighing or measuring device maintenance and calibration test records.
3. Type of quantity control tests and methods used.
4. Net content control charts for any lot, shipment, or delivery in question or lots which have previously been cited.
5. Method of date coding the product to include code interpretation.
6. Laboratory reports showing the moisture analysis of the products which are in question or have been previously cited.
7. Product volume of lot sizes or related information.
8. Distribution records related to a problem lots including names of customers.

2.6.13. Guideline for Verifying the Labeled Basis Weight of Communication and Other Paper.
(L&R, 1998, p. 27)

2.6.13.1. Equipment. – Linear measure recommended in Section 5.3.1. Equipment in the third edition of NIST Handbook 133 "Checking the Net Contents of Packaged Goods."

- Scale with a minimum division of 0.5 g (0.001 lb) or less.
- Scientific calculator with a sample standard deviation function.

2.6.13.2. Scope and Recommended Enforcement Approach. – Paper is manufactured in various "basis weights" for use in different applications (e.g., copy paper can have a basis weight of 18 lb or 20 lb). Basis weight is part of the product identity and not a declaration of net contents. This procedure is used to audit the basis weight declared on package labels. If the tested packages in a sample do not have an average basis weight equal to or greater than the labeled basis weight, the inspection lot may be in violation. A potentially violative lot should be placed "off-sale" until the owner provides documentation to confirm that the labeled basis weight

corresponds to the basis weight declared by the original manufacturer. If documentation is not provided, the inspection lot should remain "off-sale" until the basis weight declaration is corrected.

2.6.13.3. Determine Target Net Weight for Common Types of Paper. – The basis weight of paper is the designated weight (measured in grams or pounds per specified area) of one ream in basic sheet size for the type of paper being tested. This procedure permits the confirmation of basis weight by linear measurement and gravimetric testing. This procedure is designed to test the various types, size, count, and basis weights of packaged paper currently in the marketplace. Table 1 lists the "area of basic sheet size" for common types of paper. A "ream" equals 500 sheets of basic sheet size for all types of paper other than tissue paper. A "ream" of tissue paper equals 480 sheets. Each of the standard categories of paper products shown in Table 1 has a different standard basic sheet size. Although there are basic sheet sizes, paper is packaged and marketed in various sizes and counts. The net weight of packaged paper can be determined from the label information using the General Formula for Sheet Paper. For roll paper, use one (1) for the sheet count

General Formula for Sheet Paper

$$\frac{PA \times BW}{BSS} \times \frac{SC}{500} = TNW$$

Where:

PA = measured area of one sheet of paper
BW = labeled basis weight
BSS = area of basic sheet size from Table 1
SC = labeled package sheet count
TNW = target net weight of paper

2.6.13.4. Test Procedure. – The following gravimetric, measuring, and counting procedures shall be used to determine if packages are accurately labeled. Procedures are also provided for verifying net quantity of content declarations for count and dimensions (e.g., length and width.)

2.6.13.4.1. Sample Selection. – Select a sample from an inspection lot using Table 2-1 Sampling Plans of Category A (page A-2) in the fourth edition of NIST Handbook 133, "Checking the Net Contents of Packaged Goods." Determine an average tare weight in accordance with Section 2 of the fourth edition of NIST Handbook 133.

2.6.13.4.2. Determine Target Net Weight of Common Types of Paper Packaged in Various Sizes or Counts.

Verify the basis weight declared on a package using the following gravimetric procedure:

a. Record the following information from the package label on a worksheet. (see Figure 1 for a sample label.)

    1. Type of Paper (TP)
    2. Length (L)
    3. Width (W)
    4. Package Sheet Count (PSC)
    5. Basis Weight (BW)
    6. Basic Size Sheet (BSS)

b. Compute the Target Net Weight (TNW) for the sample packages using the General Formula for Sheet Paper. TNW is what the paper should weigh if the labeled properties of the packaged paper are accurate.)

c. Determine the average net weight of the sample packages. (Do not use sample error limit calculations.) If the average net weight is not equal to or more than the Target Net Weight, go to

Section 2.6.14.3. to determine if the labeled basis weight (BW) is correct. If the average net weight is equal to or more than the labeled basis weight, the sample passes.

Basis Weight Worksheet (see Figure 1. Sample Label)

Type of Paper (TP):	Copy Paper
Length (L):	11 in
Width (W):	$8^1/_2$ in
Area (PA) of Sheet (L×W):	93.5 in^2
Package Sheet Count (PSC):	500
Basis Weight (BW):	20 lb
Basic Sheet Size (BSS):	17 in × 22 in
Area of BSS from Table 1 or by calculation:	374 in^2

Example
White Copy Paper
75 g/m^2 (20 lb) Bond

Size: 216 mm × 279 mm ($8^1/_2$ in × 11 in)

Count: 500 Sheets

Fig. 1 Sample label

Use the General Formula to compute Target Net Weight (TNW):

Target Net Weight (TNW) = 5 lb

NOTE: Three factors will cause actual sample weights to differ from the TNW:

Actual sheet count in package
Actual basis weight of paper being tested
Actual dimensions of the paper being tested

$$(93.5\ \ 〚in〛\ \hat{}(2\ )\times\ 20\ lb\ )/(374\ \ 〚in〛\ \hat{}(2\ )\ )\times\ \ 500/500 = 5\ lb$$

2.6.13.4.3. Determine Basis Weight.

This procedure is used to identify potentially violative packages. If the Average Basis Weight (ABW) for the sample determined by this procedure is not equal to or greater than the labeled basis weight, other steps must be taken. Moisture affects the weight of paper, but the moisture content of paper can only be determined in a measurement laboratory according to the Technical Association of the Pulp and Paper Industry (TAPPI) (**www.tappi.org/**) TAPPI – T410 om-08, "Grammage of Paper and Paperboard (Weight per Unit Area)."

a. Verify the basis weight for each package according to the following steps:

i. Identify the paper type from Column 1 in Table 1 and record the area for the paper type from Column 2.

ii. Select a sample of paper from each of the tare sample packages. Use a sample of exact count to eliminate the possibility that the packages are short count.

- For packages with more than 100 sheets, use 100 sheets; or

- For packages with 100 sheets or less, verify the sheet count and use all of the sheets.

iii. Use a basis weight work sheet and determine the number of basic size sheets the paper sample represents with the following formula:

$$PA/A\times\ EC = ENBSS$$

Where:
A = area of basic sheet size from Table 1
PA = area (l × w) of one sheet of paper
EC = exact sheet count of sample
ENBSS = equivalent number of basic size sheets

iv. Determine the average basis weight,

Where:
BW = basis weight for each package
ABW = average basis weight
ENBSS = equivalent number of basic size sheets from step iii
NW = net weight of sample
RC = Ream Count (500; for tissue paper, use 480)

v. Repeat this step for each paper package from the tare sample and average the basis weights to obtain an Average Basis Weight (ABW). If the ABW is less than the labeled basis weight, or if the difference between the basis weight of the sample packages is more than 1 scale division, measure and compute the basis weight for each of the remaining packages.

vi. Weigh each sample. If the basis weight from step iv is less than the labeled basis weight, re-calculate the target net weight by using the general formula for sheet paper.

Table 1. Common Types of Paper and Area of Basic Sheet Size

Paper Type	Area
Bond, Ledger, Thin, Writing, and Track Feed Printer Paper	2412 cm^2 (374 in^2)
Manuscript Cover	3599 cm^2 (558 in^2)
Blotting	2941 cm^2 (456 in^2)
Cover	3354 cm^2 (520 in^2)
Blanks	3974 cm^2 (616 in^2)
Printing Bristols	4135 cm^2 (641 in^2)
Wrapping, Tissue, Waxed, Newsprint and Tag Stock	5574 cm^2 (864 in^2)
Book, Offset, and Text	6129 cm^2 (950 in^2)
Index Bristol	5019 cm^2 (778 in^2)

vii. Use the target net weight computed in step vi and re-weigh the inspection lot samples using the Section 2. of the fourth edition of NIST Handbook 133. If inspection sample weights differ from the target net weight computed using the average basis weight determined in step vi, the label sheet count is probably inaccurate.

b. Verify the label sheet count by counting the number of sheets in each package.

c. Verify sheet dimensions (length × width) for each package of the sample.

$$(NW \times RC)/ENBSS = BW$$

2.6.13.4.3.1. Other Types of Packaged Paper.

1. Roll Paper. – When testing rolled paper, cut a length of paper from the roll equal to 9350 divided by the width of the paper in inches. Make sure the ends of this length of paper are square. Proceed to Section 2.6.14.3. step a. Disregard the exact sheet count in step iii.

2. Continuous Track Feed Printer Paper:

   i. Count out a sample of 100 sheets from each tare sample package of the inspection lot.

   ii. Weigh each 100-sheet sample and record the weights.

   iii. Calculate an average weight.

   iv. Remove printer track feed strips from each sample.

   v. Re-weigh each sample after the tractor feed has been removed and record the weights.

   vi. Calculate an average weight from step v.

   vii. Calculate percentage (%) difference in the average weights in steps iii and vi.

   viii. After the track feed strips have been removed, use the samples to verify the basis weight for the packages of the inspection lot using the formula in 2.6.14.2. Declaration of Net Quantity of Contents. If the basis weight is less than the labeled basis weight, refer to 2.6.13.2. Scope and Recommended Enforcement Approach.

   ix. If the basis weight established in step viii is the same as the labeled basis weight, weigh the remaining packages from the sample and compare the actual net weights with the TNW. (Remember to adjust the TNW up by the percentage established in step vii.)

   x. If the adjusted weights of the remaining samples is less than the TNW, the deficiency may have been caused by:

      a. the sheet count in the package.

      b. the basis weight of the paper.

      c. the dimensions of the paper.

      d. combinations of the above.

      This procedure is for use in verifying that the basis weight included in a statement of identity is not misleading or deceptive. It is not intended to be used as the final criterion on which enforcement action is taken. Instead, the test procedure is only used to identify potentially volatile lots. There are two alternative actions that can be taken if the test results indicate that a lot is potentially volatile. The first is to review the documentation supplied by the original manufacturer to the converter to determine if any misrepresentation has occurred. The second is to collect packages of the paper and test them according to the latest version of ASTM International Method D646 for "Grammage of Paper and Paperboard."

2.6.14. Labeling Guidelines for Chamois.
(L&R, 1999, p. L&R 25)

These requirements are based on the Uniform Packaging and Labeling Regulation in the 1999 edition of NIST Handbook 130, "Uniform Laws and Regulations" and regulations and guidelines of the Federal Trade Commission.

General

The following information must be declared on the principal display panel of the chamois package. The principal display panel is the tag, or label that consumers can examine under normal and customary conditions of display.

- Identity - what the package contains
- Net Quantity of Contents - how many items the package contains and the area of the item(s)

The following information may appear anywhere on the package.

- Responsibility – the party responsible for packaging or distributing the product.

2.6.14.1. Declaration of Identity. – Chamois is a natural product made of sheepskin which has been oil tanned. In 1964, the FTC issued an advisory opinion stating that using the word "chamois" on a product (e.g., "Artificial" Chamois, "Synthetic" Chamois, "Pig Chamois" or "Man Made" Chamois) that is not made from oil tanned sheepskin is unlawful and deceptive. Packages are required to declare identity in terms of:

i. the name specified in or required by any applicable federal or state law or regulation or, in the absence of this,

ii. the common or usual name or, in the absence of this,

iii. the generic name or other appropriate description, including a statement of function.

Example:
Chamois, Natural Chamois Leather

2.6.14.2. Declaration of Net Quantity of Contents. – The following information is to appear on the lower 30 % of the principal display panel of all packages:

Count

- The package must include a count declaration (e.g., 1 Chamois) unless the statement of identity clearly expresses the fact that only one unit is contained in the package. A package containing two or more units shall bear a statement in terms of count (e.g., 2 Chamois).

Area

- Chamois packages must have area declarations in both U.S. customary and metric units.

Metric

- For areas that measure less than 1 m^2, the area should be stated in square decimeters and decimal fractions of a square decimeter or in square centimeters and decimal fractions of a square centimeter;
- For areas that measure 1 m^2 or more, the area should be stated in square meters and decimal fractions to not more than three places.

To facilitate value comparison and simplify the measurement process, chamois should be measured in one quarter square foot (2.322 57 decimeter) increments. Dimensions should be rounded down to avoid overstating the area.

For example:
2 square feet (18.5 square decimeters) or 2 ft^2 (18.5 dm^2)

Conversion Factors:

1 ft^2 = 9.290 30 dm^2
1 in^2 = 6.451 6 cm^2
1 yd^2 = 83.612 7 dm^2

U.S. Customary Units

- For areas that are less than 1 ft^2 (929 cm^2), the area declaration shall be expressed in square inches and fractions of square inches;

- For areas of 1 ft^2 (929 cm^2), or more, but less than 4 ft^2 (37.1 dm^2), the area shall be expressed in square feet with any remainder expressed in square inches or in fractions of a square foot;

- For areas of 4 ft^2 (37.1 dm^2) or more, the area should be expressed in terms of the largest whole unit (e.g., square yards, square yards and square feet, or square feet) with any remainder expressed in square inches and fractions of a square inch or in fractions of the square foot or square yard.

Chamois labeled for retail sale is exempt from these requirements if (a) the area of a full skin is expressed in terms of square feet with any remainder in terms of the common or decimal fraction of the square foot (929 cm^2), or (b) the area for cut skins of any configuration is expressed in terms of square inches and fractions thereof. Where the area of a cut skin is at least one square foot (929 cm^2) or more, the statement of square inches shall be followed in parentheses by a declaration in square feet with any remainder in terms of square inches or common or decimal fractions of the square foot.

Prohibited Labeling Practices

- Do not use qualifying terms or phrases (e.g., "Approximate Size," "Size when Wet," "Up to 20 % Larger When Wet").

- Do not use unacceptable symbols (e.g., using (") as a symbol for inches is not acceptable).

2.6.14.3. Declaration of Responsibility. – The name and address of the manufacturer, packer, or distributor must be conspicuously specified on the label of any package that is kept, offered, exposed for sale, or sold anywhere other than the premises where packed. The name shall be the actual corporate name, or, when not incorporated, the name under which the company does business. This declaration does not have to appear on the principal display panel.

Example:
Chamois Tanning Company
8190 Main Road
Tarpon Springs, FL 34568

The address shall include street address, city, state (or country if outside the United States), and ZIP Code (or the postal code, if any, used in countries other than the United States); however, the street address may be omitted if it is shown in a current city directory or telephone directory.

Sample Labels

1. If one natural chamois is in a see-through package, the following label would be acceptable:

Natural Chamois Leather

Distributed by:

Chamois Leather Co.
8190 Main Road
Tarpon Springs, FL 34568

7 ft^2 (65 dm^2)

2. The next sample would apply if one chamois is in a package and the statement of identity does not clearly express the fact the package only contains one unit.

Chamois

Chamois Leather Company
8190 Main Road
Tarpon Springs, FL 34568
One Chamois

3 ft^2 (27.8 dm^2)

2.6.15. Labeling Guidelines for Natural and Synthetic Sponges.
(L&R, 1999, p. L&R 31)

These requirements are based on the Uniform Packaging and Labeling Regulation in NIST Handbook 130, "Uniform Laws and Regulations" and regulations and guidelines of the Federal Trade Commission. All indicated dimensions and conversions from metric to U.S. customary units are approximate only and are used for illustration purposes only.

General

The following information must be declared on the principal display panel (PDP) of a package of sponge(s). The PDP is the part of label (or package) most likely to be displayed, presented, shown to or examined by consumers. A tag or spot label may be used.

- Identity – what the package contains
- Net Quantity of Contents – how many items in the package and the dimensions of the item(s)

The following information may appear anywhere on the package.

- Responsibility – the name of the processor or distributor

2.6.15.1. Declaration of Identity.

a. A declaration of identity that clearly describes the origin and other relevant information about the sponge must appear on the label of each package. The identity of a sponge must include information about its origin (i.e., is it a natural or synthetic sponge). The identity shall be in terms of (i) the name specified in or required by applicable federal or state law or regulation, or (ii) the common or usual name, or (iii) the generic name or other appropriate description.

Example:
Sea Wool Sponge, Rock Island Sponge, Sea Grass Sponge, Sea Yellow Sponge, or Atlantic Silk Sponge

- Origin - Natural or Synthetic

- For natural sponges, the label must specify if they are "Cut" or "Form." "Cut" sponges are those that have been cut into halves, quarters, or fourths while "forms" are whole sponges.

- For natural sponges, indicate type of sponge (e.g., "silk," "seawool," or "yellow")

b. Identifiers

- Terms which indicate locations of origin on some natural sponges (e.g., "Atlantic Sea Sponge") are permitted to be used for identification if they accurately describe the source of the sponge.

- Use of terms that may be interpreted by consumers to imply quality, durability, or "expert" endorsement (e.g., "professional quality sponge") are permitted as identifiers if they are not misleading. However, terms that imply quality should be used with care if they are not based on a recognized grading system. Use of terms to describe sponge texture such as "fine," "medium," or "coarse" are acceptable.

2.6.15.2. Declaration of Net Quantity of Contents. – The following information must appear on the lower 30 % of the principal display panel of all packages:

- Count

  The package must include a count declaration (e.g., 1 sponge) unless the statement of identity clearly expresses the fact that only one unit is contained in the package. A package containing two or more units shall bear a statement in terms of count (e.g., 2 sponges).

- Dimensions

  The package must include the dimensions of the sponges in inches and centimeters.

To facilitate value comparison and simplify the measurement process, sponges should be measured in ½ in (1 cm) increments. Dimensions should be rounded down to avoid overstating the size of a sponge.

Example:

- 6 in, 6½ in, and 7 in for inch declarations;
- 15 cm, 16 cm, and 17 cm for metric declarations

- Synthetic sponges: the dimensions shall include length × width × height (thickness). Either unit of measure can be the primary declaration (e.g., the metric or U.S. customary units can be presented first).

  sponge 17 cm × 10 cm × 5 cm (7 in × 4 in × 2 in)

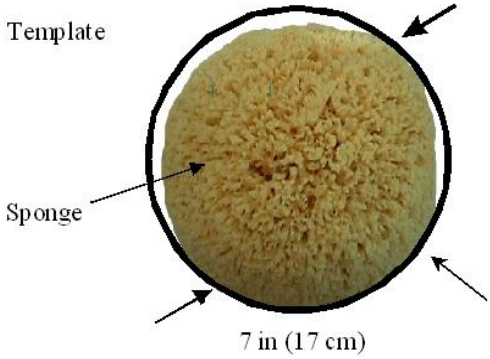
- Natural sponges: the declaration shall be a single measurement representing the maximum dimension of one axis of a sponge that is passed through a circular template. When measured, the sponge is "classified" as a specific size when at least three (including two opposing) points of the sponge touch the template (e.g., see graphic on the following page where the sample sponge is designated as a 7 in [17 cm] sponge).

As the following pictures show, natural sponges are irregular in size and shape and have traditionally been measured using this procedure. It is difficult to develop a meaningful or cost-effective measurement process that would provide a means of direct comparison between synthetic and natural sponges based on dimensions. Requiring declarations, such as average height, length, or width of natural sponge procedures would increase the costs for industry and consumers.

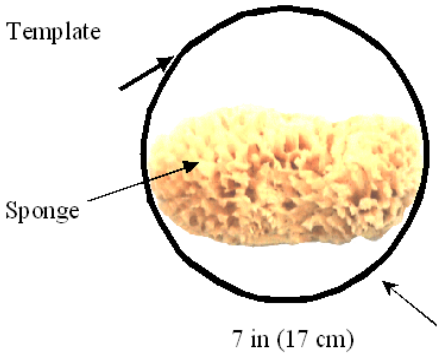
Sea Wool Sponges

Sea Grass Sponges

This graphic illustrates an irregular form of a natural sponge passing through a 17 cm (7 in) template and touching at least two opposite points. This sponge could be labeled 7 in.

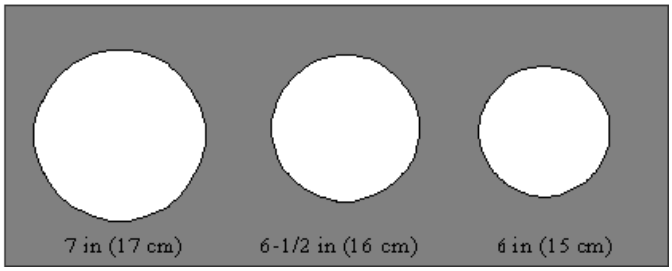


- For banana sponges the size will be determined as shown below. This sponge is 17 cm (7 in).



Good Measurement Practice

- Dimensions are determined with the sponge wet.
- Measuring templates (see photo below for the currently used type templates):



– should be constructed of rigid metal or plastic material.

– circular openings should graduate in increments of one-half inch (one centimeter).

– The error in the circular openings shall not be greater than ± 1/32 in (± 0.79 mm) as specified in Table 2. Tolerances in Section 5.52. Linear Measures of NIST Handbook 44 "Specifications, Tolerances, and Technical Requirements for Weighing and Measuring Devices."

Prohibited Labeling Practices

- Stating country of origin declarations that are not accurate.
- Declaring ranges of dimensions (e.g., 4″ - 5″ in) or using terms such as "half or semi form" instead of either "cut" or "form."
- Using qualifying terms. (e.g., "Wet Size," "Approximate" or "Jumbo")
- "Anti-bacterial" claims must meet EPA requirements.
- Using type size that does not meet minimum height requirements.
- Using unacceptable symbols (e.g., using (") as a symbol for inches is not acceptable).

2.6.15.3. Declaration of Responsibility. – The name and address of the processor or distributor must be specified on the label of any package that is kept, offered, or exposed for sale, or sold anywhere other than the premises where packed. The name shall be the actual corporate name or, when not incorporated, the name under which the business is conducted.

Example:
Processed by
Argonaut Sponge Company
8190 Main Road
Tarpon Springs, Florida 34568

The address shall include street address, city, state (or country if outside the United States), and ZIP Code (or the postal code, if any, used in countries other than the United States); however, the street address may be omitted if this is shown in a current city directory or telephone directory.

Sample Labels

Yellow Sponge Cut

Argonaut Sponge Company
8190 Main Road
Tarpon Springs, FL 34568

One - 17.5 cm (7 in)

If a natural sponge is in a box, carton, or package that does not permit consumers to see how many sponges are in the box, the package must include a count declaration (e.g., 1 sponge) unless the statement of identity clearly expresses the fact that only one unit is contained in the package. A package containing two or more units shall bear a statement in terms of count (e.g., 2 sponges). The following sample label would apply.

Synthetic Sponge

Made by:
Argonaut Sponge Company
8190 Main Road
Tarpon Springs, FL 34568

17.7 cm × 10 cm × 5 cm (7 in × 4 in × 2 in)

Synthetic Sponge

Made by:
Argonaut Sponge Company
8190 Main Road
Tarpon Springs, FL 34568

1 - Sponge 17.7 cm × 10 cm × 5 cm (7 in × 4 in × 2 in)

If a package does not permit the consumer to see how many sponges are the box, it must include a count declaration (e.g., 1 sponge) unless the statement of identity clearly expresses the fact that only one unit is contained in the package. A package containing two or more units shall bear a statement in terms of count (e.g., 2 sponges). A transparent bag of small pieces of sponge may be sold on the basis of count if the words "Irregular Dimensions" appear in conjunction with the declaration of count (e.g., 10 Sponges - Irregular Dimensions).

2.6.16. Minimum Fuel Flush for Octane Verification.
(L&R, 2000, p. L&R 13)

A minimum of 1.2 L (0.3 gal) of motor fuel shall be flushed from a dispenser before taking a sample for octane verification. The flush shall be returned to the storage tank containing the lowest octane.

To find the history on the following Sections, please refer to "Reports of the National Council on Weights and Measures" at www.nist.gov/pml/owm/national-council-weights-and-measures-ncwm-related-reports.

2.1.1. Weight(s) and/or Measure(s).
2.1.2. Section 19(a), Identity.
2.1.3. Definition of Net Weight.
2.2.1. Gift Packages.
2.2.2. Sand.
2.2.3. Sold by 4/5 Bushel.
2.2.5. Lot, Shipment, or Delivery.
2.2.6. Aerosols and Similar Pressurized Containers.
2.2.7. Aerosol Packaged Products.
2.2.8. Variety and Combination Packages.
2.2.9. Textile Products.
2.2.10. Yarn.
2.2.11. Tint Base Paint.
2.2.12. Reference Temperature for Refrigerated Products: When a Product is Required to be Maintained Under Refrigeration.
2.3.9. Fireplace Logs.
2.3.11. Packaged Foods or Cosmetics Sold from Vending Machines.
2.3.12. Movie Films, Tapes, Cassettes.

Uniform Laws and Regulations in the areas of Legal Metrology and Fuel Quality

NIST Handbook 130 2026