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Uniform Laws and Regulations

in the areas of legal metrology and motor fuel quality

Adopted by the 76th
National Conference on Weights and Measures
1991

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Foreword

This handbook compiles the latest Uniform Laws and Regulations and related interpretations and guidelines adopted by the National Conference on Weights and Measures (NCWM). At the 1983 annual meeting, the NCWM voted to change the title of Handbook 130 and the titles of the Laws and Regulations compiled in this handbook. The former title of the handbook was "Model State Laws and Regulations." "Model State" was changed to "Uniform" in the titles 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.

The compilation itself was approved by the NCWM in 1979. This edition includes amendments adopted at the annual meeting in 1991. The Conference recommends adoption and promulgation by weights and measures jurisdictions of these Uniform Laws and Regulations as updated in this handbook.

The National Institute of Standards and Technology has a statutory responsibility for "cooperation with the States in securing uniformity of weights and measures laws and methods of inspection." In partial fulfillment of this responsibility, the Institute is pleased to publish these recommendations of the National Conference.

John W. Lyons

Director
National Institute of Standards and Technology

In keeping with the move toward the primary use of metric measurements, as recommended in the Omnibus Trade and Competitiveness Act of 1988, the practice in this handbook is to cite metric before customary units wherever possible.

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Table of Contents

	Page
Foreword	iii
1991 Amendments and Editorial Changes	vi
Introduction	1
Uniformity of Laws and Regulations	3
Uniform Laws	9
A. Uniform Weights and Measures Law	11
B. Uniform Weighmaster Law	23
C. Uniform Motor Fuel Inspection Law	33
Uniform Regulations	39
A. Uniform Packaging and Labeling Regulation	41
B. Uniform Regulation for the Method of Sale of Commodities	75
C. Uniform Unit Pricing Regulation	99
D. Uniform Regulation for the Voluntary Registration of Servicepersons and Service Agencies for Commercial Weighing and Measuring Devices	105
E. Uniform Open Dating Regulation	113
F. Uniform Regulation for National Type Evaluation	121
G. Uniform Regulation for Motor Fuel	127
H. Interpretations and Guidelines	133
Index	177

In accord with NIST policy, the meter/liter spellings are used in this document. However, the metre/litre spellings are acceptable, and are preferred by the National Conference on Weights and Measures.

1991 Amendments

The following table lists those laws and regulations amended by the 76th National Conference on Weights and Measures. As appropriate, the text on the cited pages indicates the changes to the law or regulation, section, or paragraph as "Added 1991" or "Amended 1991."

Law or Regulation	Section	Action	Page
Uniform Weights and Measures Law	1.9.	Amended	15
	1.10.	Amended	15
	1.12.	Added	15
	12.(n)	Amended	18
	12.(p)	Added	19
	18.(c)	Amended	20
	18.(d)	Added	20
	18.(f)	Amended	20
	19.	Amended	20
Uniform Packaging and Labeling Regulation	2.1.	Amended	49
	2.2.	Amended	49
	2.3.	Amended	49
	2.12.	Amended	50
	2.14.	Added	51
	6.11.3.	Amended	57
Uniform Regulation for the Method of Sale of Commodities	1.1.	Amended	83
	1.2.	Amended	83
	1.5.2.3.	Amended	84
	1.9.	Amended	85
	2.4.	Amended	87
	2.20.	Amended	95
	2.24.	Added	96
	3.3.	Amended	96
Interpretations and Guidelines	2.2.14.	Added	151
	2.3.17.	Added	157

Editorial Changes

Law or Regulation	Section	Action	Page
Handbook 130	All Sections Applicable	Reversed the order of Inch-Pound/Metric references throughout the document to read Metric first, Inch-Pound second and renumbered sections where appropriate	Where applicable
Uniform Motor Fuel Inspection Law	Introduction 1.	Added "per liter"	33
	7.	Added "per liter" to Inspection Fee Section	38
Uniform Packaging and Labeling Regulation	8.2.	Added graphics to further clarify this section	59
	10.9.2.(j)	Added a metric example	63
Uniform Regulation for the Method of Sale of Commodities	Table 1.	Changed "3/4 x 3-1/2" to "3/4 x 5-1/2" as the minimum standard dressed size of dry lumber with a nominal size of 1x6 inches	91
Uniform Unit Pricing Regulation	2.	Alphabetized the list of items	103
Interpretations and Guidelines	2.3.9.	Changed the reference to Section 2.3.3. to Section 2.4.3.	153
	2.6.3.	Changed FTC Octane Certifier's phone number	166

I. Introduction

A. Source. - The Uniform Laws and Regulations¹ in this compiled form comprise all of those adopted by the National Conference on Weights and Measures (NCWM).²

The Conference Committee on Laws and Regulations (see Paragraph C), acting at the request of the Conference or upon its own initiative, prepares, with the technical assistance of the National Institute of Standards and Technology, proposed amendments or additions to the material previously adopted by the Conference. Such amendments or additions are then presented to the Conference as a whole, where they are discussed by weights and measures officials and representatives of interested manufacturers, industries, consumer groups, and others. Eventually the proposals of the Committee, which may have been amended on the floor, are voted upon by the weights and measures officials. Following the voting procedures adopted by the NCWM in 1978, a national consensus is required on all issues adopted by the Conference. No Uniform Law or Regulation is adopted without at least a majority of the States' representatives and at least a majority of other voting delegates favoring such adoption.

All of the Uniform Laws and Regulations given herein are recommended by the National Conference on Weights and Measures for use 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.

B. Purpose. - The purpose of these Uniform Laws and Regulations is to achieve, to the maximum extent possible, standardization 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. - The Committee on Laws and Regulations of the National Conference on Weights and Measures provides the mechanism for consideration of amendments or additions to the Uniform Laws and Regulations. Recommendations for changes should be directed to the Committee on Laws and Regulations, National Conference on Weights and Measures, P. O. Box 4025, Gaithersburg, Md., 20885 (with a copy to the Executive Secretary at the same address).

- o To be considered by the Committee for action during the upcoming Conference, proposals must be presented in writing to the Committee by November 1 prior to the Interim Meetings (usually the third week of January of each year).
- o Proposals should contain a concise statement of the problem and clearly outline the purpose and national need for its consideration.
- o Proposals should be accompanied by adequate background material, including test data, analysis of test data, or other appropriately researched and documented material from which the Committee will be able either to make a suitable judgment for a firm recommendation or to consider the need for further study. When possible, solutions to problems should be proposed and stated in specific language in amendment form to Conference documents.

¹When referring to the Uniform Laws and Regulations in Handbook 130, Laws and Regulations will be capitalized. When referring to general Federal or State laws and regulations, no capitalization will be used.

²The National Conference is sponsored by the National Institute of Standards and Technology (NIST), which organization provides its secretariat and publishes its documents. The NIST also develops technical publications for use by weights and measures agencies; these publications may subsequently be endorsed or adopted by the NCWM.

- o Weights and measures officials are encouraged to utilize their regional associations for initial exploration of issues and to use the resources of all member States within that regional association to assist in the development of well documented proposals where applicable.
- o If a proposal involves a new area of weights and measures activity, it is appropriate to make recommendations for both Uniform Regulations and test methods to provide for proper enforcement.

Additionally, when a proposal that would modify or add to Handbook 130 is presented to the Committee, the proposal should:

- o Identify the pertinent portion, section, and paragraph of the existing publication (e.g., Uniform Regulation for the Method of Sale of Commodities, Section 2.8.).
- o Where applicable, provide evidence of consistency with other portions of NCWM publications (such as with other Uniform Laws and Regulations).
- o Where applicable, provide evidence of consistency with Federal laws and regulations (such as with FDA or FTC regulations).

D. Revisions to the Handbook. - This Handbook will be reissued each year following the annual meeting of the National Conference on Weights and Measures and will reflect changes approved by the Conference at that meeting. Each Uniform Law and Regulation will be reprinted in full each year, even if it is not changed that year, to indicate the current version clearly. (Note: Section numbering may be changed from one edition of this Handbook to another to accommodate additions or deletions.)

E. Annotation. - From 1971 on, 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 for 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 the NCWM for that year) and subsequently adopt changes in their own laws and regulations, modeling them after the Uniform Laws and Regulations.

II. Uniformity of Laws and Regulations

1. National Conference Goal

The goal of the National Conference on Weights and Measures 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 Conference stands ready to assist any jurisdiction in any way possible in securing adoption.

2. Status of Promulgation

The following pages list, by State, information regarding the adoption of the Uniform Laws and Regulations. The tabulated data indicate 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 are intended to represent the current status of State adoption.

Unless a State adopts the recommended regulations and subsequent amendments and revision, there is need for judgment concerning the actual degree of adoption by any State unless a section-by-section comparison is made between each State law or regulation and the related Uniform Laws and Regulations. This detailed comparison has been made for three regulations:

- (1) Packaging and Labeling (see Report of the 69th NCWM, 1984),
- (2) Method of Sale (see Report of the 68th NCWM, 1983), and
- (3) Voluntary Registration (see Report of the 67th NCWM, 1982). Note that the Regulation was revised in 1984, hence the data in the 1982 inter-comparison is only partly valid.

Summary of State Laws and Regulations in Weights and Measures (as of July, 1991)

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 below has been improved by listing those States that adopt NCWM-recommended updates automatically ("YES"); see Sections 4 through 10 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. We have also incorporated the status of adoption of NIST Handbook 44.

State	Laws			Regulations							
	Weights and Measures Law	Weighmaster Law or Regulation	Motor Fuel Law	Packaging and Labeling	Method of Sale	Unit Pricing	Registration of Service Agencies	Open Dating	Type Evaluation	Motor Fuel Requirements	Handbook 44
Alabama	yes	yes	yes*	yes	yes	NO	yes	NO	yes	yes*	YES
Alaska	yes	NO	NO	yes	yes	NO	yes	NO	NO	NO	YES
Arizona	yes	yes	yes*	yes	yes	yes	yes	NO	yes	yes*	yes
Arkansas	yes	NO	yes	yes	yes	yes	yes	yes	yes	yes	YES
California	yes	yes	yes*	yes	yes	NO	yes	yes*	yes	yes	yes
Colorado	yes	yes	yes*	yes	yes	NO	yes	NO	NO	yes*	YES
Connecticut	yes	yes	yes*	yes	YES	yes*	yes*	yes*	yes	yes	YES
Delaware	yes	yes	yes*	yes	yes	NO	NO	NO	NO	yes*	YES
District of Columbia	yes	yes	NO	yes	yes	NO	NO	yes*	NO	NO	yes
Florida	yes	NO	yes*	yes	yes	yes*	yes	yes*	NO	yes*	yes
Georgia	yes	yes*	yes*	yes	yes	NO	yes	yes*	yes	yes*	YES
Hawaii	yes	yes	yes*	yes	yes	yes	yes	yes	yes	yes*	yes

Key: YES automatically 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.

State	Laws			Regulations							
	Weights and Measures Law	Weightmaster Law or Regulation	Motor Fuel Law	Packaging and Labeling	Method of Sale	Unit Pricing	Registration of Service Agencies	Open Dating	Type Evaluation	Motor Fuel Requirements	Handbook 44
Idaho	yes	yes	yes *	yes	yes	NO	yes	NO	NO	yes *	YES
Illinois	yes	NO	yes *	YES	YES	NO	yes	NO	yes	yes	YES
Indiana	yes	yes	yes *	yes	yes	NO	NO	NO	NO	yes *	YES
Iowa	yes	yes *	yes *	yes	yes *	NO	yes *	NO	yes	yes *	YES
Kansas	yes	NO	yes *	yes	yes	NO	yes	NO	yes	yes *	yes
Kentucky	yes	NO	NO	yes	yes	NO	yes	NO	NO	NO	YES
Louisiana	yes	yes	yes *	yes *	yes	NO	NO	NO	NO	yes *	YES
Maine	yes	yes	yes *	YES	YES	NO	yes	NO	NO	yes *	YES
Maryland	yes	NO	yes *	yes	yes	yes *	NO	yes *	NO	yes *	YES
Massachusetts	yes *	yes *	yes *	yes	yes	yes *	NO	NO	yes	yes *	yes
Michigan	yes *	yes *	yes	yes	NO	NO	NO	yes *	NO	yes	yes
Minnesota	yes	NO	yes *	yes	NO	NO	yes	yes	NO	yes *	yes
Mississippi	yes	yes	yes	yes	yes	yes	yes	NO	yes	yes	YES
Missouri	yes	NO	yes	YES	YES	NO	yes	yes *	yes	yes	YES
Montana	yes	NO	yes *	NO	NO	NO	yes	NO	NO	yes *	YES
Nebraska	yes	NO	NO	yes	yes	NO	yes	NO	yes	yes	yes
Nevada	yes	yes	yes	yes	yes *	NO	yes	NO	NO	NO	yes
New Hampshire	yes	yes	NO	YES	YES	YES	YES	YES	YES	YES	YES
New Jersey	yes	yes	yes *	yes	yes	yes *	yes *	NO	yes *	NO	YES

Key: YES automatically 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.

State	Laws			Regulations							
	Weights and Measures Law	Weighmaster Law or Regulation	Motor Fuel Law	Packaging and Labeling	Method of Sale	Unit Pricing	Registration of Service Agencies	Open Dating	Type Evaluation	Motor Fuel Requirements	Handbook 44
New Mexico	yes	yes	yes *	NO	yes	NO	yes	yes *	NO	yes *	YES
New York	yes	yes	NO	yes	yes	NO	yes	NO	yes	yes	YES
North Carolina	yes	yes *	yes	YES	YES	NO	yes	NO	yes	yes	YES
North Dakota	yes	yes	yes *	yes *	yes *	NO	yes	NO	NO	yes *	yes
Ohio	yes	NO	NO	yes	yes	NO	yes	NO	yes	yes	YES
Oklahoma	yes	yes *	yes *	yes	yes	yes	yes	yes *	yes	yes *	YES
Oregon	yes	NO	NO	yes	yes	yes *	NO	yes *	NO	yes	yes
Pennsylvania	yes	yes *	NO	yes	yes	NO	NO	NO	yes *	NO	YES
Puerto Rico	yes	yes	NO	yes	yes *	yes *	yes	NO	NO	yes *	yes
Rhode Island	yes *	NO	NO	yes *	yes	yes *	NO	yes *	NO	yes *	YES
South Carolina	yes	yes *	yes *	yes	yes	NO	yes	NO	NO	yes *	YES
South Dakota	yes	NO	yes *	yes	yes	NO	yes	NO	yes	yes	yes
Tennessee	yes	yes	yes	yes	yes	NO	yes	NO	NO	yes *	YES
Texas	yes	yes *	NO	yes *	yes	NO	yes	NO	NO	yes	YES
Utah	yes	NO	yes *	yes	yes	NO	yes	NO	yes	yes *	YES
Vermont	yes	yes	NO	YES	yes	yes *	yes	NO	NO	yes	YES
Virginia	yes	yes	yes *	yes	yes	NO	NO	yes *	NO	yes *	YES
<p>Key: YES automatically adopted and updated on an annual basis</p> <p>yes Law or regulation in force, NCWM standard used as basis of adoption, but from an earlier year.</p> <p>yes * Law or regulations in force, but not based on NCWM standard.</p> <p>NO No law or regulation.</p>											

State	Laws			Regulations							
	Weights and Measures Law	Weighmaster Law or Regulation	Motor Fuel Law	Packaging and Labeling	Method of Sale	Unit Pricing	Registration of Service Agencies	Open Dating	Type Evaluation	Motor Fuel Requirements	Handbook 44
Virgin Islands	yes	NO	yes *	yes *	yes *	NO	NO	NO	NO	NO	yes
Washington	yes	yes	yes	yes	NO	NO	NO	NO	NO	yes	YES
West Virginia	yes	NO	NO	yes	yes	NO	NO	NO	NO	yes	yes
Wisconsin	yes	NO	yes *	yes	yes	NO	NO	NO	NO	yes *	YES
Wyoming	yes *	NO	yes *	yes *	yes *	NO	yes	NO	NO	yes *	YES
Totals: YES				6	6	1	1	1	1	1	36
yes	49	24	8	39	37	5	34	3	20	17	17
yes *	4	9	31	6	6	9	3	13	2	28	
NO		20	14	2	4	38	15	36	30	7	
<p>Key: YES automatically adopted and updated on an annual basis</p> <p>yes Law or regulation in force, NCWM standard used as basis of adoption, but from an earlier year.</p> <p>yes * Law or regulations in force, but not based on NCWM standard.</p> <p>NO No law or regulation.</p>											

III. Uniform Laws

	Page
A. Uniform Weights and Measures Law	11
B. Uniform Weighmaster Law	23
C. Uniform Motor Fuel Inspection Law	33

Uniform Weights and Measures Law

as adopted by
The National Conference on Weights and Measures¹

1. Background

Recognition of the need for uniformity in weights and measures laws and regulations among the States was first noted at the second annual meeting of the National Conference on Weights and Measures in April 1906. In the following year, basic outlines of a "Model State Weights and Measures Law" were developed. The first "Model Law", as such, was formally adopted by the Conference in 1911.

Through the years, almost without exception, each State has relied upon the NCWM Weights and Measures Law at the time it first enacted comprehensive weights and measures legislation. This has led to a great degree of uniformity in the basic weights and measures requirements throughout the country.

The original Law was regularly amended to provide for new developments in commercial practices and technology. This resulted in a lengthy and cumbersome document and in the need for a simplification of the basic weights and measures provisions. The 1971 National Conference on Weights and Measures adopted a thoroughly revised, simplified, modernized version of the "Model State Weights and Measures Law." This Law now can serve as a framework for all the many concerns in weights and measures administration and enforcement.

The title of the Law was changed by the 1983 NCWM. Amendments or revisions to the Law since 1971 are noted at the end of each section.

¹The National Conference on Weights and Measures is sponsored by the National Institute of Standards and Technology in partial implementation of its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection."

Sections 4 through 10 of the Uniform Weights and Measures Law adopt NIST Handbook 44 and Uniform Regulations in NIST Handbook 130 by citation. In addition, these sections adopt supplements to and revisions of Handbook 44 and the Uniform Regulations "except insofar as modified or rejected by regulation." Some State laws may not permit enacting a statute that provides for automatic adoption of future supplements to or revisions of a Uniform Regulation covered by that statute. If this should be the case in a given State, two alternatives are available:

- (a) Sections 4 through 10 may be enacted without the phrase "... and supplements thereto or revisions thereof..."
- (b) Sections 4 through 10 may be enacted by replacing "... except insofar as modified or rejected by regulation..." with the phrase "...as adopted, or amended and adopted, by rule of the director."

Either alternative requires action on the part of the director to adopt a current version of Handbook 44 and each Uniform Regulation each time a supplement or revision is made by the National Conference on Weights and Measures.

2. Status of Promulgation

See the table on pages 4, 5, 6, and 7 at the front of this handbook for the status of adoption (as of July 1991) of the Uniform Weights and Measures Law.

Table of Contents

Section	Page
1. Definitions	15
1.1. Weight(s) and (or) Measure(s)	15
1.2. Weight	15
1.3. Correct	15
1.4. Primary Standards	15
1.5. Secondary Standards	15
1.6. Director	15
1.7. Person	15
1.8. Sale from Bulk	15
1.9. Package	15
1.10. Net Weight	15
1.11. Random Weight Package	15
1.12. Standard Package	15
2. Systems of Weights and Measures	15
3. Physical Standards	16
4. Technical Requirements for Weighing and Measuring Devices	16
5. Requirements for Packaging and Labeling	16
6. Requirements for the Method of Sale of Commodities	16
7. Requirements for Unit Pricing	16
8. Requirements for the Registration of Servicepersons and Service Agencies for Commercial Weighing and Measuring Devices	17
9. Requirements for Open Dating	17
10. Requirements for Type Evaluation	17
11. State Weights and Measures Division	17
12. Powers and Duties of the Director	18
13. Special Police Powers	19
14. Powers and Duties of Local Officials	19
15. Misrepresentation of Quantity	19
16. Misrepresentation of Pricing	19

Section	Page
17. Method of Sale	19
18. Sale from Bulk	20
19. Information Required on Packages	20
20. Declarations of Unit Price on Random Weight Packages	20
21. Advertising Packages for Sale	20
22. Prohibited Acts	20
23. Civil Penalties	21
23.1. Civil Action	21
23.2. Administration Hearing	21
24. Criminal Penalties	21
24.1. Misdemeanors	21
24.2. Felonies	21
25. Restraining Order and Injunction	22
26. Presumptive Evidence	22
27. Separability Provision	22
28. Repeal of Conflicting Laws	22
29. Regulations to be Unaffected by Repeal of Prior Enabling Statute	22
30. Effective Date	22

Uniform Weights and Measures Law

Section 1. Definitions. -- When used in this Act:

1.1. Weight(s) and (or) Measure(s). -- The term "weight(s) and (or) measure(s)" means all weights and measures of every kind, instruments and devices for weighing and measuring, and any appliance and accessories associated with any or all such instruments and devices.

1.2. Weight. -- The term "weight" as used in connection with any commodity or service means net weight. When a commodity is sold by drained weight, the term means net drained weight.
(Amended 1974, 1990)

1.3. Correct. -- The term "correct" as used in connection with weights and measures means conformance to all applicable requirements of this Act.

1.4. Primary Standards. -- The term "primary standards" means the physical standards of the State that serve as the legal reference from which all other standards and weights and measures are derived.

1.5. Secondary Standards. -- The term "secondary standards" means the physical standards that are traceable to the primary standards through comparisons, using acceptable laboratory procedures, and used in the enforcement of weights and measures laws and regulations.

1.6. Director. -- The term "director" means the _____ of the Department of _____.

1.7. Person. -- The term "person" means both plural and the singular, as the case demands, and includes individuals, partnerships, corporations, companies, societies, and associations.

1.8. Sale from Bulk. -- The term "sale from bulk" means the sale of commodities when the quantity is determined at the time of sale.

1.9. Package. -- Except as modified by Section 1. APPLICATION of the Uniform Packaging and Labeling

Regulation, the term "package," whether standard package or random package, means any commodity:

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

(b) whose weight or measure has been determined in advance of wholesale or retail sale.

An individual item or lot of any commodity on which there is marked a selling price based on an established price per unit of weight or of measure, shall be considered a package (or packages).
(Amended 1991)

1.10. Net Weight. -- The term "net weight" means the weight of a commodity excluding any materials, substances, or items not considered to be part of the commodity. Materials, substances, or items not considered to be part of the commodity include, but are not limited to, containers, conveyances, bags, wrappers, packaging materials, labels, individual piece coverings, decorative accompaniments, and coupons, except that, depending on the type of service rendered, packaging materials may be considered to be part of the service. For example, the service of shipping includes the weight of packing materials.
(Added 1988; Amended 1989, 1991)

1.11. Random Weight Package. -- A package that is one of a lot, shipment, or delivery of packages of the same commodity with no fixed pattern of weights.
(Added 1990)

1.12. Standard Package. -- A package that is one of a lot, shipment, or delivery of packages of the same commodity with identical net contents declarations; for example, 1-liter bottles of carbonated soda, 5-lb bags of sugar, or 9.4-oz packages of luncheon meat.
(Added 1991)

Section 2. Systems of Weights and Measures

The system of weights and measures in customary use in the United States and the metric system of weights and

of these systems shall be used for all commercial purposes in the State. The definitions of basic units of weight and measure, the tables of weight and measure, and weights and measures equivalents as published by the National Institute of Standards and Technology are recognized and shall govern weighing and measuring equipment and transactions in the State.

Section 3. Physical Standards

Weights and measures that are traceable to the U.S. prototype standards supplied by the Federal Government, or approved as being satisfactory by the National Institute of Standards and Technology, shall be the State primary standards of weights and measures, and shall be maintained in such calibration as prescribed by the National Institute of Standards and Technology. All secondary standards may be prescribed by the director and shall be verified upon their initial receipt, and as often thereafter as deemed necessary by the director.

Section 4. Technical Requirements for Weighing and Measuring Devices¹

The specifications, tolerances, and other technical requirements for commercial, law enforcement, data gathering, and other weighing and measuring devices as adopted by the National Conference on Weights and Measures and published in National Institute of Standards and Technology Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices," and supplements thereto or revisions thereof, shall apply to weighing and measuring devices in the State, except insofar as modified or rejected by regulation.
(Amended 1975)

Section 5. Requirements for Packaging and Labeling¹

The Uniform Packaging and Labeling Regulation as adopted by the National Conference on Weights and Measures and published in the National Institute of Standards and Technology Handbook 130, "Uniform Laws and Regulations," and supplements thereto or revisions thereof, shall apply to packaging and labeling in the State, except insofar as modified or rejected by regulation.

(Added 1983)

Section 6. Requirements for the Method of Sale of Commodities¹

The Uniform Regulation for the Method of Sale of Commodities as adopted by the National Conference on Weights and Measures and published in National Institute of Standards and Technology Handbook 130, "Uniform Laws and Regulations," and supplements thereto or revisions thereof, shall apply to the method of sale of commodities in the State, except insofar as modified or rejected by regulation.

(Added 1983)

Section 7. Requirements for Unit Pricing¹

The Uniform Unit Pricing Regulation as adopted by the National Conference on Weights and Measures and published in National Institute of Standards and Technology Handbook 130, "Uniform Laws and Regulations," and supplements thereto or revisions thereof, shall apply to unit pricing in the State, except insofar as modified or rejected by regulation.

(Added 1983)

¹Sections 4 through 10 of the Uniform Weights and Measures Law adopt NIST Handbook 44 and Uniform Regulations in NIST Handbook 130 by citation. In addition, these sections adopt supplements to and revisions of Handbook 44 and the Uniform Regulations "except insofar as modified or rejected by regulation." Some State laws may not permit enacting a statute that provides for automatic adoption of future supplements to or revisions of a regulation covered by that statute. If this should be the case in a given State, two alternatives are available:

- (a) Sections 4 through 10 may be enacted without the phrase "...and supplements thereto or revisions thereof..."
- (b) Sections 4 through 10 may be enacted by replacing "...except insofar as modified or rejected by regulation ..." with the phrase "...as adopted, or amended and adopted, by rule of the director."

Either alternative requires action on the part of the director to adopt a current version of Handbook 44 and each Uniform Regulation each time a supplement is added or revision is made by the National Conference on Weights and Measures.

Section 8. Requirements for the Registration of Servicepersons and Service Agencies for Commercial Weighing and Measuring Devices¹

The Uniform Regulation for the Voluntary Registration of Servicepersons and Service Agencies for Commercial Weighing and Measuring Devices as adopted by the National Conference on Weights and Measures and published in National Institute of Standards and Technology Handbook 130, "Uniform Laws and Regulations," and supplements thereto or revisions thereof, shall apply to the registration of servicepersons and service agencies in the State, except insofar as modified or rejected by regulation.
(Added 1983)

Section 9. Requirements for Open Dating¹

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

Section 10. Requirements for Type Evaluation¹

The Uniform Regulation for National Type Evaluation as adopted by the National Conference on Weights and Measures and published in National Institute of Standards and Technology Handbook 130, "Uniform Laws and Regulations," and supplements thereto or revisions

thereof, shall apply to type evaluation in the State, except insofar as modified or rejected by regulation.
(Added 1985)

Section 11. State Weights and Measures Division

There shall be a State Division of Weights and Measures located for administrative purposes within the Department of (agency, etc.). The Division is charged with, but not limited to, performing the following functions on behalf of the citizens of the State:

- (a) Assuring that weights and measures in commercial service within the State are suitable for their intended use, properly installed, and accurate, and are so maintained by their owner or user.
- (b) Preventing unfair or deceptive dealing by weight or measure in any commodity or service advertised, packaged, sold, or purchased within this State.
- (c) Making available to all users of physical standards or weighing and measuring equipment the precision calibration and related metrological certification capabilities of the weights and measures facilities of the Division.
- (d) Promoting uniformity, to the extent practicable and desirable, between weights and measures requirements of this State and those of other States and Federal agencies.

¹Sections 4 through 10 of the Uniform Weights and Measures Law adopt NIST Handbook 44 and Uniform Regulations in NIST Handbook 130 by citation. In addition, these sections adopt supplements to and revisions of Handbook 44 and the Uniform Regulations "except insofar as modified or rejected by regulation." Some State laws may not permit enacting a statute that provides for automatic adoption of future supplements to or revisions of a regulation covered by that statute. If this should be the case in a given State, two alternatives are available:

- (a) Sections 4 through 10 may be enacted without the phrase "...and supplements thereto or revisions thereof..."
- (b) Sections 4 through 10 may be enacted by replacing "...except insofar as modified or rejected by regulation ..." with the phrase "...as adopted, or amended and adopted, by rule of the director."

Either alternative requires action on the part of the director to adopt a current version of Handbook 44 and each Uniform Regulation each time a supplement is added or revision is made by the National Conference on Weights and Measures.

- (e) Encouraging desirable economic growth while protecting the consumer through the adoption by rule of weights and measures requirements as necessary to assure equity among buyers and sellers.
(Added 1976)

Section 12. Powers and Duties of the Director

The director shall:

- (a) Maintain traceability of the State standards to the national standards in the possession of the National Institute of Standards and Technology.
- (b) Enforce the provisions of this Act.
- (c) Issue reasonable regulations for the enforcement of this Act, which regulations shall have the force and effect of law.
- (d) Establish labeling requirements, establish requirements for the presentation of cost-per-unit information, establish standards of weight, measure, or count, and reasonable standards of fill for any packaged commodity; and may establish requirements for open dating information.
(Added 1973)
- (e) Grant any exemptions from the provisions of this Act or any regulations promulgated pursuant thereto when appropriate to the maintenance of good commercial practices within the State.
- (f) Conduct investigations to ensure compliance with this Act.
- (g) Delegate to appropriate personnel any of these responsibilities for the proper administration of this office.
- (h) Test annually the standards of weight and measure used by any city or county within the State, and approve the same when found to be correct.
- (i) Inspect and test weights and measures kept, offered, or exposed for sale.

- (j) Inspect and test, to ascertain if they are correct, weights and measures commercially used:

- (1) in determining the weight, measure, or count of commodities or things sold, or offered or exposed for sale, on the basis of weight, measure, or count, or,

- (2) in computing the basic charge or payment for services rendered on the basis of weight, measure, or count.

- (k) Test all weights and measures used in checking the receipt or disbursement of supplies in every institution, for the maintenance of which funds are appropriated by the legislature of the State.

- (l) Approve for use, and may mark, such weights and measures as are found to be correct, and shall reject and mark as rejected such weights and measures as are found to be incorrect. Weights and measures that have been rejected may be seized if not corrected within the time specified or if used or disposed of in a manner not specifically authorized. The director shall condemn and may seize the weights and measures found to be incorrect that are not capable of being made correct.

- (m) Weigh, measure, or inspect packaged commodities kept, offered, or exposed for sale, sold, or in the process of delivery, to determine whether they contain the amounts represented and whether they are kept, offered, or exposed for sale in accordance with this Act or regulations promulgated pursuant thereto. In carrying out the provisions of this section, the director shall employ recognized sampling procedures, such as are designated in National Institute of Standards and Technology Handbook 133, "Checking the Net Contents of Packaged Goods."
(Amended 1984, 1988)

- (n) Prescribe, by regulation, the appropriate term or unit of weight or measure to be used, whenever the director determines that an existing practice of declaring the quantity of a commodity or setting charges for a service by weight, measure, numerical count, time, or combination thereof, does not facilitate value comparisons by consumers, or offers an opportunity for consumer confusion.
(Amended 1991)

(o) Allow reasonable variations from the stated quantity of contents, which shall include those caused by loss or gain of moisture during the course of good distribution practice or by unavoidable deviations in good manufacturing practice only after the commodity has entered intrastate commerce.

(p) Provide for the training of weights and measures personnel, and may also establish minimum training and performance requirements which shall then be met by all weights and measures personnel, whether county, municipal, or State. The director may adopt the training standards of the National Conference on Weights and Measures National Training Program. (Added 1991)

Section 13. Special Police Powers

When necessary for the enforcement of this Act or regulations promulgated pursuant thereto, the director is:

(a) Authorized to enter any commercial premises during normal business hours, except that in the event such premises are not open to the public, he/she shall first present his/her credentials and obtain consent before making entry thereto, unless a search warrant has previously been obtained.

(b) Empowered to issue stop-use, hold, and removal orders with respect to any weights and measures commercially used, and stop-sale, hold, and removal orders with respect to any packaged commodities or bulk commodities kept, offered, or exposed for sale.

(c) Empowered to seize, for use as evidence, without formal warrant, any incorrect or unapproved weight, measure, package, or commodity found to be used, retained, offered, or exposed for sale or sold in violation of the provisions of this Act or regulations promulgated pursuant thereto.

(d) Empowered to stop any commercial vehicle and, after presentation of his credentials, inspect the contents, require that the person in charge of that vehicle produce any documents in his possession concerning the contents, and require him to proceed with the vehicle to some specified place for inspection.

(e) With respect to the enforcement of this Act, the director is hereby vested with special police powers, and

is authorized to arrest, without formal warrant, any violator of this Act.

Section 14. Powers and Duties of Local Officials

Any weights and measures official appointed for a county or city shall have the duties and powers enumerated in this Act, excepting those duties reserved to the State by law or regulation. These powers and duties shall extend to their respective jurisdictions, except that the jurisdiction of a county official shall not extend to any city for which a weights and measures official has been appointed. No requirement set forth by local agencies may be less stringent than or conflict with the requirements of the State.

(Amended 1984)

Section 15. Misrepresentation of Quantity

No person shall:

(a) sell, offer, or expose for sale less than the quantity represented, nor

(b) take more than the represented quantity when, as buyer, he/she furnishes the weight or measure by means of which the quantity is determined, nor

(c) represent the quantity in any manner calculated or tending to mislead or in any way deceive another person.

(Amended 1975, 1990)

Section 16. Misrepresentation of Pricing

No person shall misrepresent the price of any commodity or service sold, offered, exposed, or advertised for sale by weight, measure, or count, nor represent the price in any manner calculated or tending to mislead or in any way deceive a person.

Section 17. Method of Sale

Except as otherwise provided by the director, or by firmly established trade custom and practice:

(a) commodities in liquid form shall be sold by liquid measure or by weight, and

(b) commodities not in liquid form shall be sold by weight, by measure, or by count.

The method of sale shall provide accurate and adequate quantity information that permits the buyer to make price and quantity comparisons.
(Amended 1989)

Section 18. Sale from Bulk

All bulk sales in which the buyer and seller are not both present to witness the measurement, all bulk deliveries of heating fuel, and all other bulk sales specified by rule or regulation of the director, shall be accompanied by a delivery ticket containing the following information:

- (a) the name and address of the buyer and seller;
- (b) the date delivered;
- (c) the quantity delivered and the quantity upon which the price is based, if this differs from the delivered quantity, for example, when temperature compensated sales are made;
(Amended 1991)
- (d) the unit price, unless otherwise agreed upon by both buyer and seller;
(Added 1991)
- (e) the identity in the most descriptive terms commercially practicable, including any quality representation made in connection with the sale; and
- (f) the count of individually wrapped packages, if more than one, in the instance of commodities bought from bulk but delivered in packages.
(Amended 1983, 1991)

Section 19. Information Required on Packages

Except as otherwise provided in this Act or by regulations promulgated pursuant thereto, any package, whether a random package or a standard package, kept for the purpose of sale, or offered or exposed for sale

shall bear on the outside of the package a definite, plain, and conspicuous declaration of:

- (a) the identity of the commodity in the package, unless the same can easily be identified through the wrapper or container;
- (b) the quantity of contents in terms of weight, measure, or count; and
- (c) the name and place of business of the manufacturer, packer, or distributor, in the case of any package kept, offered, or exposed for sale, or sold in any place other than on the premises where packed.

(Amended 1991)

Section 20. Declarations of Unit Price on Random Weight Packages

In addition to the declarations required by Section 19 of this Act, any package being one of a lot containing random weights of the same commodity, at the time it is offered or exposed for sale at retail, shall bear on the outside of the package a plain and conspicuous declaration of the price per kilogram¹ or pound and the total selling price of the package.
(Amended 1986)

Section 21. Advertising Packages for Sale

Whenever a packaged commodity is advertised in any manner with the retail price stated, there shall be closely and conspicuously associated with the retail price a declaration of quantity as is required by law or regulation to appear on the package. Where a dual declaration is required, only the declaration that sets forth the quantity in terms of the smaller unit of weight or measure need appear in the advertisement.

Section 22. Prohibited Acts

No person shall:

- (a) use or have in possession for use in commerce any incorrect weight or measure;

¹Packages subject to the Federal Fair Packaging and Labeling Act (except for camera film) must be labeled in inch-pound units of measure. Metric units may also be declared on the principal display panel and may even appear first. (Amended 1990)

(b) sell or offer for sale for use in commerce any incorrect weight or measure;

(c) remove any tag, seal, or mark from any weight or measure without specific written authorization from the proper authority;

(d) hinder or obstruct any weights and measures official in the performance of his or her duties; or

(e) violate any provisions of this Act or regulations promulgated under it.

Section 23. Civil Penalties

Any person who by himself or herself, by his or her servant or agent, or as the servant or agent of another person commits any of the acts enumerated in Section 22 may be subject to a civil penalty.

23.1. Civil Action. A civil action may be brought by the director in any court of competent jurisdiction to recover a civil penalty of:

(a) not less than \$___ nor more than \$___ for a first violation,

(b) not less than \$___ nor more than \$___ for a second violation within two years from the date of the first violation, and

(c) not less than \$___ nor more than \$___ for a third violation within two years from the date of the first violation.

23.2. Administrative Hearing. The director or his/her designee shall be authorized to conduct an administrative hearing and, upon notice and an opportunity to be heard, may assess a civil penalty of:

(a) not less than \$___ nor more than \$___ for a first violation,

(b) not less than \$___ nor more than \$___ for a second violation within two years from the date of the first violation, and

(c) not less than \$___ nor more than \$___ for a third violation within two years from the date of the first violation

upon the finding of a violation of any provision of this Act.

The decision of the director shall be subject to appropriate judicial review.

Any civil penalty collected under this Act shall be transmitted to the state treasurer, who shall credit the same to the _____ fund.

(Added 1989)

Section 24. Criminal Penalties

24.1. Misdemeanors. Any person who commits any of the acts enumerated in Section 22 shall be guilty of a class _____ misdemeanor, and upon a first conviction thereof shall be punished by a fine of not less than \$___ nor more than \$___ or by imprisonment for not more than _____ months, or both. Upon a subsequent conviction thereof, he or she shall be punished by a fine of not less than \$___ nor more than \$___ or by imprisonment for up to _____, or both.

24.2. Felonies. Any person who:

(a) intentionally violates any provisions of this Act or regulations under it;

(b) is convicted under the misdemeanor provisions of Section 24(a) more than three times in a 2-year period;

(c) removes or counterfeits the departmental seal; or

(d) uses or has in his or her possession a device which has been altered to facilitate fraud,

shall be guilty of a class _____ felony, and upon a first offense, shall be punished by a fine of not less than \$___, or by imprisonment for not more than _____, or both.

(Added 1989)

Section 25. Restraining Order and Injunction

The director is authorized to apply to any court of competent jurisdiction for a restraining order, or a temporary or permanent injunction, restraining any person from violating any provision of this Act.

(Retitled 1989)

Section 26. Presumptive Evidence

Whenever there shall exist a weight or measure or weighing or measuring device in or about any place in which or from which buying or selling is commonly carried on, there shall be a rebuttable presumption that such weight or measure or weighing or measuring device is regularly used for the business purposes of that place.

Section 27. Separability Provision

If any provision of this Act is declared unconstitutional, or the applicability thereof to any person or circumstance is held invalid, the constitutionality of the remainder of the Act and the applicability thereof to other persons and circumstances shall not be affected thereby.

Section 28. Repeal of Conflicting Laws

All laws and parts of laws contrary to or inconsistent with the provisions of this Act are repealed except as to offenses committed, liabilities incurred, and claims made thereunder prior to the effective date of this Act.

Section 29. Regulations to Be Unaffected by Repeal of Prior Enabling Statute

The adoption of this Act or any of its provisions shall not affect any regulations promulgated pursuant to the authority of any earlier enabling statute unless inconsistent with this Act or modified or revoked by the director.

Section 30. Effective Date

This Act shall become effective on_____.

Uniform Weighmaster Law

as adopted by
The National Conference on Weights and Measures¹

1. Background

The "Model State Weighmaster Law" was first proposed by the 35th National Conference on Weights and Measures in 1950. It was formally adopted by the National Conference and recommended to the States in 1951.

Over the years, very little change had been made to the Weighmaster Law until 1965. In that year, the format of the Weighmaster Law was revised to be in full accord with the Weights and Measures Law. The name was changed to "Uniform Weighmaster Law" in 1983. The law was again completely revised and updated in 1989. It was editorially revised in 1990.

It provides a registration, licensing and enforcement program for "public weighmasters," or third-party measurers in commercial transactions.

2. Status of Promulgation

See the table on pages 4, 5, 6, and 7 in the front of this handbook for the status of adoption (as of July 1991) of the 1990 Uniform Weighmaster Law.

¹ *The National Conference on Weights and Measures is sponsored by the National Institute of Standards and Technology in partial implementation of its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection."*

Table of Contents

Section	Page
1. Purpose	27
2. Scope	27
3. Definitions	27
3.1. Public Weighing	27
3.2. Public Weighmaster	27
3.3. Vehicle	27
3.4. Director	27
4. Enforcing Officer: Rules and Regulations	27
5. Qualifications for Weighmaster	27
6. License Application	28
7. Evaluation of Qualifications of Applicants	28
8. Issuance and Records of Licenses	28
9. License Fees	28
10. Certificate: Required Entries	28
11. Certificate: Execution, Requirements	29
12. Measurement Practices and Equipment Used	29
13. Scale Used: Capacity, Platform Size, One-Draft Weighing	29
14. Copies of Certificates	29
15. Reciprocal Acceptance of Certificates	29
16. Optional Licensing	29
17. Prohibited Acts	30
18. Suspension and Revocation of License	30
19. Civil Penalties	30
19.1. Civil Action	30
19.2. Administrative Hearing	31

Table of Contents (Continued)

Section	Page
19.3. Judicial Review	31
19.4. Transmittal of Monies	31
20. Criminal Penalties	31
20.1. Misdemeanor	31
20.2. Felony	31
21. Restraining Order and Injunction	31
22. Validity of Prosecutions	31
23. Separability Provision	31
24. Repeal of Conflicting Laws	31
25. Citation	31
26. Effective Date	31

Uniform Weighmaster Law

Section 1. Purpose

The purpose of this Act is to ensure accurate measurements by public weighmasters.

Section 2. Scope

This Act:

- (a) establishes a registration, licensing, and enforcement program;
- (b) provides authority for license fee collection;
- (c) empowers the state to promulgate regulations as needed to carry out the provisions of the Act;
- (d) provides for optional or voluntary licensing when the employing organization or other organizations require it as part of the condition for employment;
- (e) provides for civil and criminal penalties.

Section 3. Definitions

As used in this Act:

3.1. Public Weighing means the weighing, measuring, or counting, upon request, of vehicles, property, produce, commodities, or articles other than those that the weigher or his/her employer, if any, is either buying or selling.

3.2. Public Weighmaster means any person who performs public weighing as defined in 3.1.

3.3. Vehicle means any device (except railroad freight cars) in, upon, or by which any property, produce, commodity, or article is or may be transported or drawn.

3.4. Director means the _____ of the Department of _____.

Section 4. Enforcing Officer: Rules and Regulations

The Director is authorized to:

- (a) enforce the provisions of this Act;
- (b) issue reasonable regulations for the enforcement of this Act that shall have the force and effect of law; and
- (c) adopt rules that include, but are not limited to, determining:
 - (1) the qualifications of the applicant for a license as a public weighmaster;
 - (2) renewal or refusal of a license;
 - (3) the period of license validity;
 - (4) measurement practices that must be followed, including the measurement or recording of tare;
 - (5) the required information to be submitted with or as part of a certificate;
 - (6) the period of recordkeeping.

Section 5. Qualifications for Weighmaster

To receive authorization to act as a public weighmaster, a person must receive a license from the Director. In order to qualify for a license, a person must:

- (a) be able to weigh or measure accurately;
- (b) be able to make correct certificates; and
- (c) possess other qualifications required by regulations promulgated under the Act.

Section 6. License Application

Using a form provided by the Director, the applicant for a license as a public weighmaster shall furnish evidence that he/she has the qualifications required by Section 5 of this Act and regulations promulgated under the Act.

Section 7. Evaluation of Qualifications of Applicants

The Director will determine the qualifications of the applicant based on:

- (a) the information provided on the application; and
- (b) supplementary information as determined by the Director.

The Director may also determine the qualifications of the applicant based on the results of an examination of the applicant's knowledge.

Section 8. Issuance and Records of Licenses

The Director will:

- (a) grant licenses as public weighmasters to qualified applicants;
- (b) keep a record of all applications submitted and of all licenses issued.
- (c) establish the period of validity of licenses issued.

Section 9. License Fees

The Director shall have the authority to set fees for the administration and effective enforcement of the provisions of this Act. Before the issuance of a new license or renewal of a license as a public weighmaster, the applicant must pay a fee of \$_____ to the Director.

Section 10. Certificate: Required Entries

- (a) The certificate, when properly filled out and signed shall be prima facie evidence of the accuracy of the measurements shown.

(b) The design of and the information to be furnished on a weight certificate shall be prescribed by the Director and will include, but not be limited to, the following.

- (1) The name and license number of the public weighmaster.
- (2) The kind of commodity weighed, measured, or counted.
- (3) The name of the owner, agent, or consignee of the commodity.
- (4) The name of the recipient of the commodity, if applicable.
- (5) The date the certificate is issued.
- (6) The consecutive number of the certificate.
- (7) The identification, including the identification number, if any, of the carrier transporting the commodity, and the identification number or license number of the vehicle.
- (8) Other information needed to distinguish or identify the commodity from a like kind.
- (9) The number of units of the commodity, if applicable.
- (10) The measure of the commodity, if applicable.
- (11) The weight of the commodity and the vehicle or container (if applicable) broken down as follows:
 - (i) the gross weight of the commodity and the associated vehicle or container;
 - (ii) the tare weight of the unladen vehicle or container; or
 - (iii) both the gross and tare weight and the resultant net weight of the commodity.
- (12) Signature of the public weighmaster who determined the weight, measure, or count.

Section 11. Certificate: Execution, Requirements

(a) When filling out a certificate, a public weighmaster shall:

- (1) enter the measurement values to clearly show that the measurements were actually determined;
- (2) enter only the measurement values personally determined;
- (3) not enter measurement values determined by other persons.

(b) If the certificate provides for entries of gross, tare, or net, the public weighmaster shall:

- (1) strike out or otherwise cancel the printed entries for the values not determined; or
- (2) enter the scale and date on which the values were determined on the certificate if the values were not determined on the same scale or on the same date shown on the certificate.

Section 12. Measurement Practices and Equipment Used

A public weighmaster shall use measurement practices and equipment:

- (a) in accordance with the requirements of the latest edition of NIST Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices;"
- (b) examined, tested, and approved for use by a weights and measures officer of this State.

Section 13. Scale Used: Capacity, Platform Size, One-Draft Weighing

(a) A public weighmaster shall not weigh a vehicle, or combination of vehicles, when part of the vehicle or connected combination, is not resting fully, completely, and as one entire unit on the scale.

(b) When weighing a combination of vehicles that will not rest fully, completely, and as one complete unit on the scale platform,

- (1) the combination shall be disconnected and weighed in single drafts; and
- (2) the weights of the single drafts may be combined in order to issue a single certificate for the combination, provided that the certificate indicates that the total represents a combination of single draft weighings.

Section 14. Copies of Certificates

A public weighmaster shall keep and preserve for the period specified in the regulations a legible copy of each certificate issued by him or her. The certificates shall be available for inspection by any weights and measures officer of this State during normal office hours.

Section 15. Reciprocal Acceptance of Certificates

The Director is authorized to recognize and accept certificates issued by licensed public weighmasters of other States that recognize and accept certificates issued by licensed weighmasters of this State.

Section 16. Optional Licensing

The following persons shall be authorized, but are not required, to obtain licenses as public weighmasters:

- (a) a law enforcement or weights and measures officer, or other qualified employee of a State, city, or county agency or institution when acting within the scope of his/her official duties;
- (b) a person weighing property, produce, commodities, or articles:
 - (1) that he/she or his/her employer is either buying or selling; or
 - (2) in conformity with the requirements of Federal statutes or the statutes of this State relative to warehousemen or processors.

Section 17. Prohibited Acts

It is a prohibited act for any person

- (a) without a valid license to:
 - (1) assume the title of public weighmaster, or any title of similar import;
 - (2) perform the duties or acts to be performed by a public weighmaster;
 - (3) hold himself or herself out as a public weighmaster;
 - (4) issue any certificate, ticket, memorandum, or statement for which a fee is charged;
 - (5) engage in full-time or part-time business of measuring for hire.
- (b) to use or operate any device for certification purposes that does not meet, nor in a manner not in accordance with, the requirements of the latest edition of NIST Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices;"
- (c) to falsify a certificate or to falsely certify any gross, tare, or net weight or measure required by the Act to be on the certificate;
- (d) to refuse without cause to weigh or measure any article or thing which it is his/her duty to weigh or measure, or refuse to state in any certificate anything required to be therein;
- (e) to hinder or obstruct in any way the Director or his/her authorized agent in the performance of the Director's official duties under this Act;
- (f) to violate any provision of this Act or any regulation promulgated under this Act,
- (g) to delegate his/her authority to any person not licensed as a public weighmaster,
- (h) to request a false certificate or to request a public weighmaster to weigh, measure, or count any vehicle,

property, produce, commodity, or article falsely or incorrectly;

- (i) to issue a certificate simulating the certificate in the Act;
- (j) to use or have in his/her possession a device which has been altered to facilitate fraud.

Section 18. Suspension and Revocation of License

The Director is authorized to suspend or revoke the license of any public weighmaster:

- (a) when, after a hearing held following 10 days notice to the licensee, he/she is satisfied that the licensee has violated any provision of this Act or of any regulation under this Act;
- (b) when the licensee has been convicted in any court of competent jurisdiction of violating any provision of this Act or of any regulation under this Act; or
- (c) when the licensee is convicted of any felony.

Section 19. Civil Penalties

Any person who by him/herself, by his/her servant or agent, or as the servant or agent of another person commits any of the acts enumerated in Section 17 may be subject to a civil penalty.

19.1. Civil Action. A civil action may be brought by the Director in any court of competent jurisdiction to recover a civil penalty of:

- (a) not less than \$____ nor more than \$____ for a first violation,
- (b) not less than \$____ nor more than \$____ for a second violation within 2 years from the date of the first violation, and
- (c) not less than \$____ nor more than \$____ for a third violation within 2 years from the date of the first violation.

19.2. Administrative Hearing. Upon a finding of a violation of any provision of this Act, the Director or his/her designee shall be authorized to conduct an administrative hearing and, upon notice and an opportunity to be heard, may assess a civil penalty of:

(a) not less than \$___ nor more than \$___ for a first violation,

(b) not less than \$___ nor more than \$___ for a second violation within 2 years from the date of the first violation, and

(c) not less than \$___ nor more than \$___ for a third violation within 2 years from the date of the first violation.

19.3. Judicial Review. The final decision of the Director shall be subject to appropriate judicial review.

19.4. Transmittal of Monies. Any civil penalty collected under this Act shall be transmitted to the state treasurer, who shall credit the same to the ___ fund.

Section 20. Criminal Penalties

20.1. Misdemeanor. Any person who, by him/herself by his/her servant or agent, or as the servant or agent of another person commits any of the acts enumerated in Section 17 or violates any other provision of this Act shall be guilty of a Class___ misdemeanor and upon conviction shall be punished by a fine not less than \$___ nor more than \$___, or by imprisonment for not less than ___ nor more than ___, or both fine and imprisonment.

20.2. Felony. Any person who by him/herself by his/her servant or agent, or as the servant or agent of another person intentionally commits any of the acts enumerated in Section 17 or repeatedly violates any other provision of this Act shall be guilty of a Class___ felony and upon conviction shall be punished by a fine not less than \$___ and/or by imprisonment for not less than ___ nor more than ___ or more than ___.

Section 21. Restraining Order and Injunction

The Director is authorized to apply to any court of competent jurisdiction for a restraining order, or a

temporary or permanent injunction, restraining any person from violating any provision of this Act.

Section 22. Validity of Prosecutions

Prosecutions for violation of any provision of this Act are declared to be valid and proper notwithstanding the existence of any other valid general or specific Act of this State dealing with matters that may be the same as or similar to those covered by this Act.

Section 23. Separability Provision

If any provision of this Act is declared unconstitutional, or the applicability thereof to any person or circumstance is held invalid, the constitutionality of the remainder of the Act and the applicability thereof to other persons and circumstances shall not be affected.

Section 24. Repeal of Conflicting Laws

All laws and parts of laws contrary to or inconsistent with the provisions of this Act, and specifically _____, are repealed insofar as they might operate in the future; but as to offenses committed, liabilities incurred, and claims now existing thereunder, the existing law shall remain in full force and effect.

Section 25. Citation

This Act may be cited as the "Public Weighmaster Act of _____."

Section 26. Effective Date

This Act shall become effective on _____.

Uniform Motor Fuel Inspection Law

as adopted by
The National Conference on Weights and Measures¹

1. Background

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

A Motor Fuels Task Force was appointed in 1984 and the Nation's governors were contacted, both with the expressed purpose of achieving uniformity in the evaluation and regulation of motor fuels.

The Task Force developed the Uniform Motor Fuel Inspection Law and the Uniform Motor Fuel Regulation to accompany the Law. The Law appears on the following pages, and the Regulation on page 127.

The recommended Law requires registration and certification of the motor fuel as meeting ASTM standards. It establishes a motor fuel quality testing capability by the State. Funding for the installation and support of the testing facility is established by a fee per liter or per gallon on all fuel marketed within the State.

2. Status of Promulgation

The Uniform Motor Fuel Inspection Law was recommended for adoption by the Conference in 1987. The table on pages 4, 5, 6, and 7 in the front of this handbook shows the States that have motor fuel laws as of July 1991.

¹*The National Conference on Weights and Measures is sponsored by the National Institute of Standards and Technology in partial implementation of its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection."*



Table of Contents

Section	Page
1. Purpose	37
2. Scope	37
3. Definitions	37
3.1. Motor Fuel	37
3.2. Director	37
3.3. Person	37
4. Administration, Adoption of Standards, and Rules	37
5. General Duties and Powers	37
6. Registration and Certification of Motor Fuels	37
7. Inspection Fee	38
8. Prohibited Acts	38
9. Penalties	38
10. Injunction	38
11. Separability Provision	38
12. Repeal of Conflicting Laws	38
13. Citation	38
14. Effective Date	38

Uniform Motor Fuel Inspection Law

Section 1. Purpose

There should be uniformity among the requirements for motor fuels of the several States. This Act provides for the establishment of quality specifications for all liquid motor fuels, except aviation fuel and liquefied petroleum gases.

Section 2. Scope

The Act establishes a sampling, testing, and enforcement program, provides authority for fee collection, requires registration of motor fuels, and empowers the State to promulgate regulations as needed to carry out the provisions of the Act. It also provides for penalties.

Section 3. Definitions

As used in this Act:

3.1. Motor Fuel. -- The term "motor fuel" means any liquid product used for the generation of power in an internal combustion engine, except aviation fuel and liquefied petroleum gases.

3.2. Director. -- The term "Director" means the____ of the department of_____.

3.3. Person. -- The term "person" means both plural and singular, as the case demands, and includes individuals, partnerships, corporations, companies, societies, and associations.

Section 4. Administration, Adoption of Standards, and Rules

The provisions of the Act shall be administered by the Director or his authorized agent. For the purpose of administering and giving effect to the provisions of this Act, the standards set forth in the Annual Book of ASTM Standards and supplements thereto, and revisions thereof, are adopted except as amended or modified by the Director. The Director is empowered to write rules and regulations on the advertising, posting of prices, labeling, standards for, and identity of motor fuels and is authorized to establish a testing laboratory.

Section 5. General Duties and Powers

The Director shall have the authority to:

(a) Enforce and administer all the provisions of this Act by inspections, analyses, and other appropriate actions.

(b) Have access during normal business hours to all places where motor fuels are marketed for the purpose of examination, inspection, taking of samples, and investigation. If such access shall be refused by the owner or agent or other persons leasing the same, the Director or his agent may obtain an administrative search warrant from a court of competent jurisdiction.

(c) Collect, or cause to be collected, samples of motor fuels marketed in this State, and cause such samples to be tested or analyzed for compliance with the provisions of this Act.

(d) Issue a stop-sale order for any motor fuel found not to be in compliance and remand said stop-sale order if the motor fuel is brought into full compliance with this Act.

(e) Refuse, revoke, or suspend the registration of a motor fuel.

(f) Delegate to authorized agents any of the responsibilities for the proper administration of this Act.

Section 6. Registration and Certification of Motor Fuels

All motor fuel must be registered by the name, brand, or trademark under which it will be sold. Such registration shall include:

(a) Name and address of person registering the motor fuel.

(b) Antiknock index or Cetane number, as appropriate, at which the motor fuel is to be marketed.

(c) Certification, declaration, or affidavit that each individual grade or type of motor fuel shall conform to the provisions of this Act.

Section 7. Inspection Fee

There shall be paid a fee of \$___ per liter or per gallon on all motor fuels marketed within this State for the purposes of administering and effectively enforcing the provisions of this Act.

Section 8. Prohibited Acts

It shall be unlawful to:

- (a) Market motor fuels in any manner that may deceive or tend to deceive the purchaser as to the nature, price, quantity and/or quality of a motor fuel.
- (b) Fail to register a motor fuel.
- (c) Submit incorrect, misleading, or false information regarding the registration of a motor fuel.
- (d) Hinder or obstruct the Director, or his authorized agent, in the performance of his duties.
- (e) Market a motor fuel that is contrary to the provisions of this Act.

Section 9. Penalties

Any person who violates any provision of this Act or regulations promulgated pursuant thereto shall be guilty of a misdemeanor, and upon conviction, shall be punished by a fine of not more than \$___, or imprisonment for not more than ___ years, or both.

Section 10. Injunction

The Director is authorized to apply to any court of competent jurisdiction for a temporary or permanent injunction restraining any person from violating any provision of this Act.

Section 11. Separability Provision

If any word, phrase, provision, or portion of this Act shall be held in a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall apply only to such word, phrase, provision, or portion, and for this purpose the provisions of this Act are declared to be severable.

Section 12. Repeal of Conflicting Laws

All laws and parts of laws contrary to or inconsistent with the provisions of this Act are repealed except as to offense committed, liabilities incurred, and claims made thereunder prior to the effective date of this Act.

Section 13. Citation

This Act may be cited as the "Motor Fuel Inspection Act of___."

Section 14. Effective Date

This Act shall become effective on_____.

IV. Uniform Regulations

	Page
A. Uniform Packaging and Labeling Regulation	41
B. Uniform Regulation for the Method of Sale of Commodities	75
C. Uniform Unit Pricing Regulation	99
D. Uniform Regulation for the Voluntary Registration of Servicepersons and Service Agencies for Commercial Weighing and Measuring Devices	105
E. Uniform Open Dating Regulation	113
F. Uniform Regulation for National Type Evaluation	121
G. Uniform Regulation for Motor Fuel	127

Uniform Packaging and Labeling Regulation

as adopted by
The National Conference on Weights and Measures¹

1. Background

The Uniform Packaging and Labeling Regulation was first adopted during the 37th National Conference on Weights and Measures in 1952. Reporting to the Conference, the Committee on Legislation stated:

The National Conference should adopt a model package regulation for the guidance of those States authorized to adopt such a regulation under provisions of their weights and measures laws. Since so much of the work of weights and measures officials in the package field concerns food products, the importance of uniformity between the Federal Food and Drug Administration's regulations and any model regulations to be adopted by this Conference cannot be overemphasized.

Since its inception, the Uniform Packaging and Labeling Regulation has been continually revised to meet the complexities of an enormous expansion in the packaging industry--an expansion that, in late 1966, brought about the passage of the Fair Packaging and Labeling Act (FPLA). Recognizing the need for compatibility with

the Federal Act, the Committee on Laws and Regulations of the 53rd National Conference in 1968 amended the "Model Packaging and Labeling Regulation" (renamed in 1983) to parallel regulations adopted by Federal agencies under FPLA. The process of amending and revising this Regulation is a continuing one, in order to keep it current with practices in the packaging field and make it compatible with appropriate Federal regulations. Amendments and additions since 1971 are noted at the end of each section.

The revision of 1978 provided for the use of metric units on labels as well as allowing metric-only labels for those commodities not covered by Federal laws or regulations.

Nothing contained in this regulation should be construed to supersede any labeling requirement specified in Federal law or to require the use of metric.

2. Status of Promulgation

The table on pages 4, 5, 6, and 7 in the front of this handbook shows the status of adoption (as of July 1991) of the Uniform Packaging and Labeling Regulation.

¹The National Conference on Weights and Measures is sponsored by the National Institute of Standards and Technology in partial implementation of its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection."



Table of Contents

Section	Page
Preamble	49
1. Application	49
2. Definitions	49
2.1. Package	49
2.2. Consumer Package: Package of Consumer Commodity	49
2.3. Nonconsumer Package: Package of Nonconsumer Commodity	49
2.4. Random Package.	49
2.5. Label	49
2.6. Person	50
2.7. Principal Display Panel or Panels	50
2.8. Multi-Unit Package	50
2.9. Combination Package	50
2.10. Variety Package	50
2.11. Petroleum Products	50
2.12. Spot Label	50
2.13. Header Strip	50
2.14. Standard Package	51
Section 3. Declaration of Identity: Consumer Package	51
3.1. Declaration of Identity: Consumer Package	51
3.1.1. Parallel Identity Declaration: Consumer Package	51
4. Declaration of Identity: Nonconsumer Package	51
5. Declaration of Responsibility: Consumer and Nonconsumer Packages	51
6. Declaration of Quantity: Consumer Packages	52
6.1. General	52
6.2. Largest Whole Unit	52
6.3. Net Quantity	52
6.3.1. Use of "Net Weight"	52
6.3.2. Lines of Print or Type	52
6.4. Terms: Weight, Liquid Measure, Dry Measure, or Count	52
6.4.1. Combination Declaration	52
6.5. Metric Units: Weight, Measure	53
6.5.1. Symbols	53

Table of Contents

Section	Page
6.6. Inch-Pound Units: Weight, Measure	53
6.6.1. Symbols and Abbreviations	54
6.6.2. Units of Two or More Meanings	54
6.7. Prescribed Units, Metric System	54
6.7.1. Less than 1 Meter, 1 Square Meter, 1 Kilogram, or 1 Liter	54
6.7.2. One Meter, 1 Square Meter, 1 Kilogram, 1 Liter, or More	54
6.7.3. Bidimensional Commodities	55
6.8. Prescribed Units, Inch-Pound System	55
6.8.1. Less than 1 Foot, 1 Square Foot, 1 Pound, or 1 Pint	55
6.8.2. Weight: Dual Quantity Declaration	55
6.8.3. Liquid Measure: Dual Quantity Declaration	55
6.8.4. Length Measure: Dual Quantity Declaration	55
6.8.5. Area Measure: Dual Quantity Declaration	55
6.8.6. Four Feet, 4 Square Feet, 4 Pounds, 1 Gallon, or More	55
6.8.7. Bidimensional Commodities	56
6.9. Count: Ply	56
6.10. Fractions	56
6.11. Supplementary Declarations	57
6.11.1. Supplementary Quantity Declarations	57
6.11.2. Combined Metric and Inch-Pound Declarations	57
6.11.3. Rounding	57
6.12. Qualification of Declaration Prohibited	57
6.13. Character of Declaration: Average	57
7. Declaration of Quantity: Nonconsumer Packages	57
7.1. General	57
7.2. Location	57
7.3. Terms: Weight, Liquid Measure, Dry Measure, or Count	57
7.4. Metric Units: Weight, Measure	58
7.4.1. Symbols	58
7.5. Inch-Pound Units: Weight, Measure	58
7.5.1. Symbols and Abbreviations	58
7.6. Character of Declaration: Average	58

Table of Contents

Section	Page
8. Prominence and Placement: Consumer Packages	58
8.1. General	58
8.1.1. Location	59
8.1.2. Style of Type or Lettering	59
8.1.3. Color Contrast	59
8.1.4. Free Area	59
8.1.5. Parallel Quantity Declaration	59
8.2. Calculation of Area of Principal Display Panel for Purposes of Type Size	59
8.2.1. Minimum Height of Numbers and Letters	60
8.2.2. Numbers and Letters: Proportion	60
9. Prominence and Placement: Nonconsumer Packages	61
9.1. General	61
10. Requirements: Specific Consumer Commodities, Nonconsumer Commodities, Packages, Containers	61
10.1. Display Card Package	61
10.2. Eggs	61
10.3. Aerosols and Similar Pressurized Containers	61
10.4. Multi-Unit Packages	61
10.5. Combination Packages	62
10.6. Variety Packages	62
10.7. Cylindrical Containers	62
10.8. Measurement of Container-Type Commodities, How Expressed	62
10.8.1. General	62
10.8.2. Capacity	62
10.8.3. Terms	63
10.9. Textile Products, Threads, and Yarns	63
10.9.1. Wearing Apparel	63
10.9.2. Textiles	63
10.9.3. Textiles: Variations from Declared Dimensions	64
10.9.4. Sewing Threads, Handicraft Threads, and Yarns	64
10.10. Packaged Seed	64
10.11. Mulch: Variations from Declared Volume	65
10.12. Polyethylene Products: Variations from Declared Thickness	65
10.13. Polyethylene Products: Variations from Declared Weight	65

Table of Contents

Section	Page
11. Exemptions	65
11.1. General	65
11.2. Random Packages	65
11.3. Small Confections	65
11.4. Small Packages of Meat or Meat Products	66
11.5. Individual Servings	66
11.6. Cuts, Plugs, and Twists of Tobacco and Cigars	66
11.7. Reusable (Returnable) Glass Containers	66
11.8. Cigarettes and Small Cigars	66
11.9. Packaged Commodities with Labeling Requirements Specified in Federal Law	66
11.10. Fluid Dairy Products, Ice Cream, and Similar Frozen Desserts	66
11.11. Single Strength and Less than Single Strength Fruit Juice Beverages, Imitations Thereof, and Drinking Water	67
11.12. Soft-Drink Bottles	67
11.13. Multi-Unit Soft-Drink Packages	67
11.14. Butter	67
11.15. Eggs	67
11.16. Flour	67
11.17. Small Packages	67
11.18. Decorative Containers	67
11.19. Combination and Variety Packages	68
11.20. Margarine	68
11.21. Corn Flour and Corn Meal	68
11.22. Prescription and Insulin-Containing Drugs	68
11.23. Camera Film	68
11.24. Paints and Kindred Products	68
11.25. Automotive Cooling System Antifreeze	69
11.26. Motor Oils	69
11.27. Pillows, Cushions, Comforters, Mattress Pads, Sleeping Bags, and Similar Products	69
11.28. Commodities' Variable Weights and Sizes	69
11.29. Packaged Commodities Sold by Count	69
11.30. Fishing Lines and Reels	69
11.31. Textile Packages	69
11.32. Spot Label	70
11.33. Header Strip	70
12. Variations to Be Allowed	70
12.1. Packaging Variations	70
12.1.1. Variations from Declared Net Quantity	70
12.1.2. Variations Resulting from Exposure	70
12.2. Magnitude of Permitted Variations	70
13. Retail Sale Price Representations	70

Section	Page
13.1. "Cents-off" Representations	70
13.2. Introductory Offers	71
13.3. Economy Size	72
14. Revocation of Conflicting Regulations	72
15. Effective Date	72
Appendix: Metric/Inch-Pound Conversion Factors	73

Uniform Packaging and Labeling Regulation

Preamble

The purpose of this regulation is to provide accurate and adequate information on packages as to the identity and quantity of contents so that purchasers can make price and quantity comparisons.

(Added 1989)

Section 1. Application

This regulation shall apply to packages and to commodities in package form, but shall not apply to:

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

(b) shipping containers or wrapping used solely for the transportation of any commodities in bulk or in quantity to manufacturers, packers, or processors, or to wholesale or retail distributors, but in no event shall this exclusion apply to packages of consumer or nonconsumer commodities, as defined herein,
(Added 1971)

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

(d) containers used for retail tray pack displays when the container itself is not intended to be sold (e.g., the tray that is used to display individual envelopes of seasonings, gravies, etc., and the tray itself is not intended to be sold), or

(e) open carriers and transparent wrappers or carriers for containers when the wrappers or carriers do not bear any written, printed, or graphic matter obscuring the label information required by this regulation.

Section 2. Definitions

2.1. Package. -- Except as modified by Section 1. APPLICATION, the term "package," whether standard package or random package, means any commodity:

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

(b) whose weight or measure has been determined in advance of wholesale or retail sale.

An individual item or lot of any commodity on which there is marked a selling price based on an established price per unit of weight or of measure shall be considered a package or packages.

(Amended 1988, 1991)

2.2. Consumer Package: Package of Consumer Commodity. -- A package that is customarily produced or distributed for sale through retail sales agencies or instrumentalities for consumption or use by individuals for the purposes of personal care or in the performance of services ordinarily rendered in or about the household or in connection with personal possessions.

(Amended 1988, 1991)

2.3. Nonconsumer Package: Package of Nonconsumer Commodity. -- Any package other than a consumer package, and particularly a package intended solely for industrial or institutional use or for wholesale distribution.

(Amended 1988, 1991)

2.4. Random Package. -- A package that is one of a lot, shipment, or delivery of packages of the same consumer commodity with no fixed pattern of weights.

(Amended 1988, 1990)

2.5. Label. -- Any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon or adjacent to a consumer commodity or a package containing any consumer commodity, for purposes of branding, identifying, or giving any information with respect to the commodity or to the contents of the package, except that an inspector's tag or other nonpromotional matter affixed to or appearing upon a consumer commodity shall not be considered a label requiring the repetition of label information required by this regulation.

(Amended 1988)

2.6. Person. -- The term "person" means either singular or plural, and shall include any individual, partnership, company, corporation, association, and society.

(Amended 1988)

2.7. Principal Display Panel or Panels. -- That part, or those parts, of a label that is, or are, so designed as to most likely be displayed, presented, shown, or examined under normal and customary conditions of display and purchase. Wherever a principal display panel appears more than once on a package, all requirements pertaining to the "principal display panel" shall pertain to all such "principal display panels."

(Amended 1988)

2.8. Multi-Unit Package. -- A package containing two or more individual packages of the same commodity, in the same quantity, intended to be sold as a multi-unit package, but where the component packages are labeled individually in full compliance with all requirements of this regulation.

(Amended 1988)

2.9. Combination Package. -- A package intended for retail sale, containing two or more individual packages or units of dissimilar commodities. (Examples: an antiquing or housecleaning kit; sponge and cleaner; seasonal gift package of wine and cheese; lighter fluid and flints.)

(Added 1989)

2.10. Variety Package. -- A package intended for retail sale, containing two or more individual packages or units of similar, but not identical, commodities. Commodities that are generically the same, but that differ in weight, measure, volume, appearance, or quality, are considered similar but not identical. (Examples: 2 sponges of different sizes; plastic tableware, consisting of 4 spoons, 4 knives, and 4 forks; seasonal gift packages of different varieties of cheese; and packages of mixed types of cold cereal.)

(Added 1989)

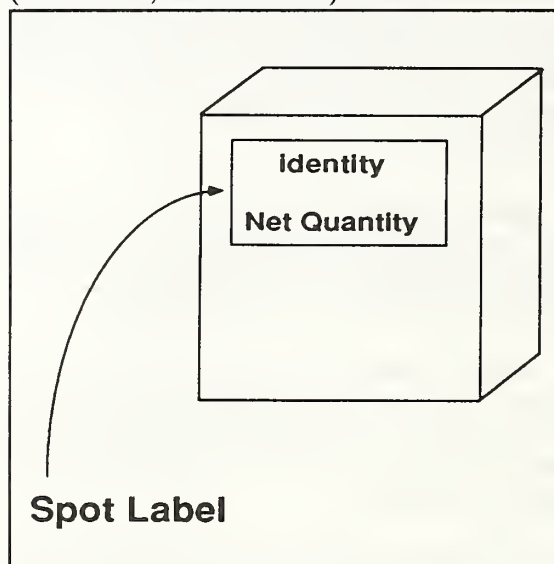
2.11. Petroleum Products. - Gasoline, diesel fuel, kerosene, or any product (whether or not such a

product is actually derived from naturally occurring hydrocarbon mixtures known as "petroleum") commonly used in powering, lubricating, or idling engines or other devices, or is labeled as fuel to power camping stoves or lights. Therefore, sewing machine lubricant, camping fuels, and synthetic motor oil are "petroleum products" for the purposes of this regulation. Brake fluid, copier machine dispersant, antifreeze, cleaning solvents, and alcohol are not "petroleum products."

(Added 1987; Amended 1988)

2.12. Spot Label. -- A spot label is a label, clearly defined by means of a border, indentation, or other means, that covers only a small portion of the surface of a principal display panel of a package; the entire portion of the principal display panel outside the area of the label contains no printed or graphic matter of any kind. A spot label may contain all required labeling information (identity, responsibility, and net contents), but it must at least indicate the identity and net contents. See Section 11.32. for net contents placement exemption for a spot label. Also see figure below.

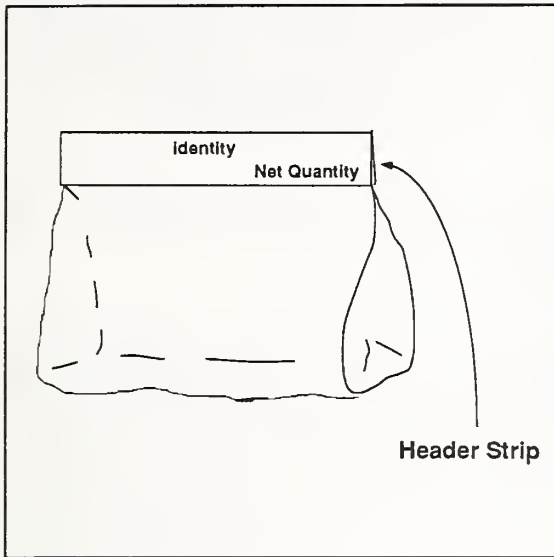
(Added 1990; Amended 1991)



2.13. Header Strip. -- A header label or header strip is a label that is attached across the top of a transparent or opaque bag or other container that bears no other printed or graphic material. See Section 11.33. for net contents placement exemptions. Also see figure below.

(Added 1990)

¹Section 19.(a) of the Uniform Weights and Measures Law (and 21 CFR 101.100 (b) (3) for non-meat and non-poultry foods) specifically exempts packages from identity statements if the identity of the commodity "can easily be identified through the wrapper or container." (Added 1986)



2.14. Standard Package. -- A package that is one of a lot, shipment, or delivery of packages of the same commodity with identical net contents declarations; for example, 1-liter bottles of carbonated soda, 5-lb bags of sugar, or 9.4-oz packages of luncheon meat. (Added 1991)

Section 3. Declaration of Identity: Consumer Package

3.1. Declaration of Identity: Consumer Package. -- A separate declaration of identity¹ on a consumer package shall appear on the principal display panel and shall not be misleading or deceptive. The identity shall be in terms of:

- (a) the name specified in or required by any applicable Federal or State law or regulation or, in the absence of this,
- (b) the common or usual name or, in the absence of this,
- (c) the generic name or other appropriate description, including a statement of function (such as "cleaning powder"). (Amended 1990; Footnote added 1986)

3.1.1. Parallel Identity Declaration: Consumer Package. -- A declaration of the identity on a consumer package shall appear generally parallel to the base on which the package rests as it is designed to be displayed.

Section 4. Declaration of Identity: Nonconsumer Package

A declaration of identity¹ on a nonconsumer package shall appear on the outside of a package and shall not be misleading or deceptive. The identity shall be in terms of:

- (a) the name specified in or required by any applicable Federal or State law or regulation or, in the absence of this,
- (b) the common or usual name or, in the absence of this,
- (c) the generic name or other appropriate description, including a statement of function (such as "cleaning powder"). (Amended 1990, Footnote added 1986)

Section 5. Declaration of Responsibility: Consumer and Nonconsumer Packages

Any package kept, offered, or exposed for sale, or sold, at any place other than on the premises where packed shall specify conspicuously on the label of the package the name and address of the manufacturer, packer, or distributor. The name shall be the actual corporate name, or, when not incorporated, the name under which the business is conducted. The address shall include street address, city, State, and ZIP Code; however, the street address may be omitted if this is shown in a current city directory or telephone directory.

If a person manufactures, packs, or distributes a commodity at a place other than his principal place of business, the label may state the principal place of business in lieu of the actual place where the commodity was manufactured or packed or is to be distributed, unless such statement would be misleading. Where the commodity is not manufactured by the person whose

¹Packages subject to the Federal Fair Packaging and Labeling Act must be labeled in inch-pound units of measure (except for camera film). Metric units may also be declared on the principal display panel and may even appear first. (Added 1982, amended 1990)

name appears on the label, the name shall be qualified by a phrase that reveals the connection such person has with such commodity, such as "Manufactured for and packed by _____," "Distributed by _____" or any other wording of similar import that expresses the facts.

Section 6. Declaration of Quantity: Consumer Packages

6.1. General.¹ -- The metric and inch-pound systems of weights and measures are recognized as proper systems to be used in the declaration of quantity. Units of both systems may be presented in a declaration of quantity.
(Amended 1985, 1990)

6.2. Largest Whole Unit. -- Where this regulation requires that the quantity declaration be in terms of the largest whole unit, the declaration shall, with respect to a particular package, be in terms of the largest whole unit of weight or measure, with any remainder expressed (following the requirements of Section 6.10. Fractions):

(a) Metric Units, in decimal fractions of such largest whole unit.

(b) Inch-Pound Units

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

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

6.3. Net Quantity. -- A declaration of net quantity of the commodity in the package, exclusive of wrappers and any other material packed with such commodity (except as noted in Section 10.3.), shall appear on the principal display panel of a consumer package and, unless otherwise specified in this regulation (see subsections 6.7. through 6.8.3.), shall be in terms of the largest whole unit.

6.3.1. Use of "Net Weight." -- The term "net weight" shall be used in conjunction with the declaration of quantity in units of weight. The term may either precede or follow the declaration of weight.

6.3.2. Lines of Print or Type. -- A declaration of quantity may appear on one or more lines of print or type.
(Amended 1982)

6.4. Terms: Weight, Liquid Measure, Dry Measure, or Count. -- The declaration of the quantity of a particular commodity shall be expressed in terms of liquid measure if the commodity is liquid, or dry measure if the commodity is dry, or in terms of weight if the commodity is solid, semisolid, viscous, or a mixture of solid and liquid, or in terms of numerical count. However, if there exists a firmly established general consumer usage and trade custom with respect to the terms used in expressing a declaration of quantity of a particular commodity, such a declaration of quantity may be expressed in its traditional terms, provided that such traditional declaration gives accurate and adequate information as to the quantity of the commodity. Any net contents statement that does not permit price and quantity comparisons is forbidden.
(Amended 1989)

6.4.1. Combination Declaration. --

(a) A declaration of quantity in terms of weight shall be combined with appropriate declarations of the measure, count, and size of the individual units unless a declaration of weight alone is fully informative.

(b) A declaration of quantity in terms of measure shall be combined with appropriate declarations of the weight, count, and size of the individual units unless a declaration of measure alone is fully informative.

(c) A declaration of quantity in terms of count shall be combined with appropriate declarations of the weight, measure, and size of the individual units unless a declaration of count alone is fully informative.
(Added 1971)

¹*Packages subject to the Federal Fair Packaging and Labeling Act (except for camera film) must be labeled in inch-pound units of measure. Metric units may also be declared on the principal display panel and may even appear first.*
(Added 1982, amended 1990)

6.5. Metric Units: Weight, Measure¹. -- A declaration of quantity:

(a) in units of weight shall be in terms of the kilogram, gram, or milligram;

(b) in units of liquid measure shall be in terms of the liter or milliliter, and shall express the volume at 20 °C, except in the case of petroleum products or distilled spirits, for which the declaration shall express the volume at 15 °C, and except also in the case of a commodity that is normally sold and consumed while frozen, for which the declaration shall express the volume at the frozen temperature, and except also in the case of malt beverages or a commodity that must be maintained in the refrigerated state, for which the declaration shall express the volume at 4 °C;
(Amended 1985, 1990)

(c) in units of linear measure shall be in terms of the meter, centimeter, or millimeter;

(d) in units of area measure, shall be in terms of the square meter or square centimeter;

(e) in units of volume other than liquid measure, shall be in terms of the liter and milliliter, except that the terms cubic meter and cubic centimeter will be used only when specifically designated as a method of sale.

6.5.1. Symbols. -- Any of the following symbols for metric units, and none other, may be employed in the quantity statement on a package of commodity:

kilogram	kg	meter	m
gram	g	centimeter	cm
milligram	mg	millimeter	mm
liter	L or l	square meter	m ²
milliliter	mL or ml	square centimeter	cm ²
cubic meter	m ³		
cubic centimeter	cm ³		

(a) Symbols, except for liter, are not capitalized unless the unit is derived from a proper name. Periods should not be used after the symbol. Symbols are always written in the singular form--do not add "s" to express the plural when the symbol is used.

(b) The "l" symbol for liter and "ml" symbol for milliliter are permitted; however, the "L" symbol and the "mL" symbol are preferred.
(Amended 1980)

6.6. Inch-Pound Units: Weight, Measure. -- A declaration of quantity:

(a) in units of weight, shall be in terms of the avoirdupois pound or ounce;

(b) in units of liquid measure, shall be in terms of the United States gallon of 231 cubic inches or liquid-quart, liquid-pint, or fluid-ounce subdivisions of the gallon, and shall express the volume at 68 °F except in the case of petroleum products and distilled spirits, for which the declaration shall express the volume at 60 °F, and except also in the case of a commodity that is normally sold and consumed while frozen, for which the declaration shall express the volume at the frozen temperature, and except also in the case of a commodity that must be maintained in the refrigerated state, for which the declaration shall express the volume at 40 °F, and except also in the case of malt beverages, for which the declaration shall express the volume at 39.1 °F;
(Amended 1985, 1990)

(c) in units of linear measure, shall be in terms of the yard, foot, or inch;

(d) in units of area measure, shall be in terms of the square yard, square foot, or square inch;

(e) in units of volume measure, shall be in terms of the cubic yard, cubic foot, or cubic inch;

¹Packages subject to the Federal Fair Packaging and Labeling Act (except for camera film) must be labeled in inch-pound units of measure. Metric units may also be declared on the principal display panel and may even appear first.
(Added 1982, amended 1990)

²Packages entering interstate commerce are restricted by Federal regulations to two decimal place quantity declarations. For example, see 21 CFR 101.105(j)(2) for non-meat and non-poultry foods, and 16 CFR 500.9(b) for certain non-food consumer commodities.
(Added 1984; Amended 1990)

(f) in units of dry measure, shall be in terms of the United States bushel of 2150.42 cubic inches, or peck, dry-quart, and dry-pint subdivisions of the bushel.

6.6.1. Symbols and Abbreviations. -- Any of the following symbols and abbreviations, and none other, shall be employed in the quantity statement on a package of commodity:

avoirdupois	avdp	ounce	oz
each	ea	piece	pc
count	ct	pint	pt
cubic	cu	pound	lb
feet or foot	ft	quart	qt
fluid	fl	square	sq
gallon	gal	weight	wt
inch	in	yard	yd
liquid	liq		

(There normally are no periods following, nor plural forms of, symbols. For example, "oz" is the symbol for both "ounce" and "ounces." Both upper and lower case letters are acceptable.)

(Added 1974; Amended 1980, 1990)

6.6.2. Units of Two or More Meanings. -- When the term "ounce" is employed in a declaration of liquid quantity, the declaration shall identify the particular meaning of the term by the use of the term "fluid"; however, such distinction may be omitted when, by association of terms (for example, as in "20 fluid ounces, 1 pint 4 ounces"), the proper meaning is obvious. Whenever the declaration of quantity is in terms of the dry pint or dry quart, the declaration shall include the word "dry."

(Amended 1982)

6.7. Prescribed Units, Metric System¹. --

6.7.1. Less than 1 Meter, 1 Square Meter, 1 Kilogram, or 1 Liter. - The declaration of quantity shall be expressed in terms of:

(a) in the case of length measure of less than 1 meter, centimeters or millimeters;
(Amended 1979)

(b) in the case of area measure of less than 1 square meter, square centimeters and decimal fractions of square centimeters;

(c) in the case of weight of less than 1 kilogram, grams and decimal fractions of a gram, but if less than 1 gram, then in milligrams;

(d) in the case of liquid or dry measure of less than one liter, milliliters;

Provided, that the quantity declaration appearing on a random weight package may be expressed in terms of decimal fractions of the largest appropriate unit, the fraction being carried out to not more than three² decimal places.

(Amended 1980)

6.7.2. One Meter, 1 Square Meter, 1 Kilogram, 1 Liter, or More. --In the case of:

(a) length measure of 1 meter or more; in meters and decimal fractions to not more than two places.

(b) area measure of 1 square meter or more; in square meters and decimal fractions to not more than two places.

(c) weight of 1 kilogram or more; in kilograms and decimal fractions to not more than two places.

(d) liquid or dry measure of 1 liter or more; in liters and decimal fractions to not more than two places.

Provided, that the quantity declaration appearing on a random weight package may be expressed in terms of kilograms and decimal fractions carried out to not more than three² decimal places.

(Added 1986)

¹Packages entering interstate commerce are restricted by Federal regulations to two decimal place quantity declarations. For example, see 21 CFR 101.105(j)(2) for non-meat and non-poultry foods, and 16 CFR 500.9(b) for certain non-food consumer commodities.

(Added 1984; Amended 1990)

6.7.3. Bidimensional Commodities. -- For bidimensional commodities (including roll-type commodities) the quantity declaration shall be expressed:

(a) if less than 1 square meter in terms of length and width.

(b) if 1 square meter or more, in terms of square measure followed in parentheses by a declaration of length and width; Provided, that

(1) quantity declarations on bidimensional commodities with a width of 100 millimeters or less may be expressed in terms of width and length, only.

(2) commodities consisting of usable individual units (except roll-type commodities with individual usable units created by perforations, for which see subsection 6.9. Count: Ply.) require a declaration of unit area but not a declaration of total area of all such units.

(3) no declaration in square units is required for commodities for which the length and width measurements are critical in terms of end use (such as tablecloths or bedsheets) if such commodities clearly present the length and width measurements on the label.

6.8. Prescribed Units, Inch-Pound System.

6.8.1. Less than 1 Foot, 1 Square Foot, 1 Pound, or 1 Pint. -- The declaration of quantity shall be expressed in terms of:

(a) in the case of length measure of less than 1 foot, inches and fractions of inches;

(b) in the case of area measure of less than 1 square foot, square inches and fractions of square inches;

(c) in the case of weight of less than 1 pound, ounces and fractions of ounces;

(d) in the case of liquid measure of less than 1 pint, fluid ounces and fractions of fluid ounces;

Provided, that the quantity declaration appearing on a random package may be expressed in terms of decimal fractions of the largest appropriate unit, the fraction

being carried out to not more than three¹ decimal places.

(Amended 1984)

6.8.2. Weight: Dual Quantity Declaration.

-- On packages containing 1 pound or more but less than 4 pounds, the declaration shall be expressed in ounces and, in addition, shall be followed by a declaration in parentheses, expressed in terms of the largest whole unit; Provided, that the quantity declaration appearing on a random package may be expressed in terms of pounds and decimal fractions of the pound carried out to not more than three¹ decimal places.

(Amended 1984)

6.8.3. Liquid Measure: Dual Quantity Declaration.

-- On packages containing 1 pint or more, but less than 1 gallon, the declaration shall be expressed in fluid ounces and, in addition, shall be followed by a declaration in parentheses, expressed in terms of the largest whole unit.

6.8.4. Length Measure: Dual Quantity Declaration.

-- On packages containing 1 foot or more, but less than 4 feet, the declaration shall be expressed in inches and, in addition, shall be followed by a declaration in parentheses, expressed in terms of the largest whole unit.

6.8.5. Area Measure: Dual Quantity Declaration.

-- On packages containing 1 square foot or more but less than 4 square feet, the declaration shall be expressed in square inches and, in addition, shall be followed by a declaration in parentheses, expressed in terms of the largest whole unit.

6.8.6. Four Feet, 4 Square Feet, 4 Pounds, 1 Gallon, or More.

-- In the case of:

(a) length measure of 4 feet or more

the declaration of quantity shall be expressed in terms of feet, followed in parentheses by a declaration of yards and common or decimal fractions of the yard, or in terms of feet followed in parentheses by a declaration of yards with any remainder in terms of feet and inches. In the case of:

(b) area measure of 4 square feet or more;

(c) weight of 4 pounds or more;

- (d) liquid measure of 1 gallon or more

the declaration of quantity shall be expressed in terms of the largest whole unit.

6.8.7. Bidimensional Commodities. -- For bidimensional commodities (including roll-type commodities) the quantity declaration shall be expressed,

- (a) if less than 1 square foot, in terms of length and width in linear inches and fractions of linear inches;

- (b) if at least 1 square foot but less than 4 square feet, in terms of square inches followed in parentheses by a declaration of both the length and width, each being in terms of the largest whole unit; Provided, that:

- (1) no square inch declaration is required for a bidimensional commodity of 4 inches width or less,

- (2) a dimension of less than 2 feet may be stated in inches within the parenthetical declaration, and

- (3) commodities consisting of usable individual units (except roll-type commodities with individual usable units created by perforations, for which see subsection 6.9. Count: Ply.) require a declaration of unit area but not a declaration of total area of all such units;

- (c) if 4 square feet or more, in terms of square feet followed in parentheses by a declaration of the length and width in terms of the largest whole unit; Provided, that:

- (1) no declaration in square feet is required for a bidimensional commodity with a width of 4 inches or less,

- (2) bidimensional commodities, with a width of 4 inches or less, shall have the width first followed by the length expressed in inches followed by a statement in parentheses of the length in the largest

whole unit. [Example: 2 inches by 360 inches (10 yards)],
(Added 1972)

- (3) a dimension of less than 2 feet may be stated in inches within the parenthetical declaration, and

- (d) no declaration in square units is required for commodities for which the length and width measurements are critical in terms of end use (such as tablecloths or bedsheets) if such commodities clearly present the length and width measurements on the label.

6.9. Count: Ply. -- If the commodity is in individually usable units of one or more components or plies, the quantity declaration shall, in addition to complying with other applicable quantity declaration requirements of this regulation, include the number of plies and total number of usable units.

Roll-type commodities, when perforated so as to identify individual usable units, shall not be deemed to be made up of usable units; however, such roll-type commodities shall be labeled in terms of:

- (a) total area measurement,
(b) number of plies,
(c) count of usable units, and
(d) dimensions of a single usable unit.
(Amended 1988)

6.10. Fractions. --

- (a) **Metric:** A metric statement in a declaration of net quantity of contents of any consumer commodity may contain only decimal fractions.

- (b) **Inch-Pound:** An inch-pound statement of net quantity of contents of any consumer commodity may contain common or decimal fractions. A common

¹*Packages entering interstate commerce are restricted by Federal regulations to two decimal place quantity declarations. For example, see 21 CFR 101.105(j)(2) for non-meat and non-poultry foods, and 16 CFR 500.9(b) for certain non-food consumer commodities.*

(Added 1984; Amended 1990)

²*Although nonconsumer packages under this Regulation might bear metric declarations only, this Regulation should not be construed to supersede any labeling requirement specified in Federal law.*

fraction shall be in terms of halves, quarters, eighths, sixteenths, or thirty-seconds, except that:

(1) if there exists a firmly established general consumer usage and trade custom of employing different common fractions in the net quantity declaration of a particular commodity, they may be employed, and

(2) if linear measurements are required in terms of yards or feet common fractions may be in terms of thirds.

(c) **Common fractions:** A common fraction shall be reduced to its lowest term (Example: $2/4$ becomes $1/2$).

(d) **Decimal fractions:** A decimal fraction shall not be carried out to more than two places, except that the quantity declaration appearing on a random package may be carried out to not more than three¹ decimal places.

(Amended 1986)

6.11. Supplementary Declarations. --

6.11.1. Supplementary Quantity

Declarations. -- The required quantity declaration may be supplemented by one or more declarations of weight, measure, or count, such declaration appearing other than on a principal display panel. Such supplemental statement of quantity of contents shall not include any term qualifying a unit of weight, measure, or count that tends to exaggerate the amount of commodity contained in the package (e.g., "giant" quart, "larger" liter, "full" gallon, "when packed," "minimum," or words of similar import).

6.11.2. Combined Metric and Inch-Pound

Declarations. -- An equivalent statement of the net quantity of contents in terms of either the inch-pound or metric system is not regarded as a supplemental statement and such statement may also appear on the principal display panel; Provided, that it conforms to both Section 6.5. and Section 6.6.

6.11.3. Rounding. -- In all conversions for the purpose of showing an equivalent metric or inch-pound quantity to a rounded inch-pound or metric quantity, or in calculated values to be declared in the net quantity statement, the number of significant digits retained must be such that accuracy is neither sacrificed nor exaggerated.

(Amended 1991)

6.12. Qualification of Declaration Prohibited.

-- In no case shall any declaration of quantity be qualified by the addition of the words "when packed," "minimum," or "not less than," or any words of similar import, nor shall any unit of weight, measure, or count be qualified by any term (such as "jumbo," "giant," "full," or the like) that tends to exaggerate the amount of commodity.

6.13. Character of Declaration: Average. --

The average quantity of contents in the packages of a particular lot, shipment, or delivery shall at least equal the declared quantity, and no unreasonable shortage in any package shall be permitted, even though overages in other packages in the same shipment, delivery, or lot compensate for such shortage.

(Added 1981)

Section 7. Declaration of Quantity: Nonconsumer Packages

7.1. General. -- The metric and inch-pound systems of weights and measures are recognized as proper systems to be used in the declaration of quantity. Units of both systems might be combined in a dual declaration of quantity.²

7.2. Location. -- A nonconsumer package shall bear on the outside a declaration of the net quantity of contents. Such declaration shall be in terms of the largest whole unit (see subsection 6.2. Largest Whole Unit).

7.3. Terms: Weight, Liquid Measure, Dry Measure, or Count. --

The declaration of the quantity of a particular commodity shall be expressed in terms of liquid measure if the commodity is liquid, or in terms of dry measure if the commodity is dry, or in terms of weight if the commodity is solid, semisolid, viscous, or a mixture of solid and liquid, or in terms of numerical count. However, if there exists a firmly established general consumer usage and trade custom

with respect to the terms used in expressing a declaration of quantity of a particular commodity, such declaration of quantity may be expressed in its traditional terms, if such traditional declaration gives accurate and adequate information as to the quantity of the commodity.

7.4. Metric Units: Weight, Measure. -- A declaration of quantity:

(a) in units of weight, shall be in terms of the kilogram, gram, or milligram;

(b) in units of liquid measure, shall be in terms of the liter or milliliter, and shall express the volume at 20 °C, except in the case of petroleum products or distilled spirits, for which the declaration shall express the volume at 15 °C, and except also in the case of a commodity that is normally sold and consumed while frozen, for which the declaration shall express the volume at the frozen temperature, and except also in the case of malt beverages or a commodity that is normally sold in the refrigerated state, for which the declaration shall express the volume at 4 °C;
(Amended 1985)

(c) in units of linear measure, shall be in terms of the meter, centimeter, or millimeter;

(d) in units of area measure, shall be in terms of the square meter or square centimeter;

(e) in units of volume other than liquid measure, shall be in terms of the liter and milliliter, except that the terms cubic meter and cubic centimeter will be used only when specifically designated as a method of sale.

7.4.1. Symbols. -- Only those symbols as detailed in subsection 6.5.1. Symbols, and none other, may be employed in the quantity statement on a package of commodity.

7.5. Inch-Pound Units: Weight, Measure. -- A declaration of quantity:

(a) in units of weight, shall be in terms of the avoirdupois pound or ounce;

(b) in units of liquid measure, shall be in terms of the United States gallon of 231 cubic inches or liquid-quart, liquid-pint, or fluid-ounce subdivisions of the gallon, and shall express the volume at 68 °F except in the case of

petroleum products or distilled spirits, for which the declaration shall express the volume at 60 °F, and except also in the case of a commodity that is normally sold and consumed while frozen, for which the declaration shall express the volume at the frozen temperature, and except also in the case of a commodity that is normally sold in the refrigerated state, for which the declaration shall express the volume at 40 °F, and except also in the case of malt beverages, for which the declaration shall express the volume at 39.1 °F;
(Amended 1985)

(c) in units of linear measure, shall be in terms of the yard, foot, or inch;

(d) in units of area measure, shall be in terms of the square yard, square foot, or square inch;

(e) in units of volume measure, shall be in terms of the cubic yard, cubic foot, or cubic inch;

(f) in units of dry measure, shall be in terms of the United States bushel of 2150.42 cubic inches, or peck, dry-quart, and dry-pint subdivisions of the bushel.

7.5.1. Symbols and Abbreviations. -- Any generally accepted symbol and abbreviation of a unit name may be employed in the quantity statement on a package of commodity. (For commonly accepted symbols and abbreviations, see subsection 6.6.1. Symbols and Abbreviations.)

7.6. Character of Declaration: Average. -- The average quantity of contents in the packages of a particular lot, shipment, or delivery shall at least equal the declared quantity, and no unreasonable shortage in any package shall be permitted, even though overages in other packages in the same shipment, delivery, or lot compensate for such shortage.

**Section 8. Prominence and Placement:
Consumer Packages**

8.1. General. -- All information required to appear on a consumer package shall appear thereon in the English language and shall be prominent, definite, and plain, and shall be conspicuous as to size and style of letters and numbers and as to color of letters and numbers in contrast to color of background. Any required information that is either in hand lettering or

hand script shall be entirely clear and equal to printing in legibility.

8.1.1. Location. -- The declaration or declarations of quantity of the contents of a package shall appear in the bottom 30 percent of the principal display panel or panels. For cylindrical containers, see also subsection 10.7. for additional requirements.
(Amended 1975)

8.1.2. Style of Type or Lettering. -- The declaration or declarations of quantity shall be in such a style of type or lettering as to be boldly, clearly, and conspicuously presented with respect to other type, lettering, or graphic material on the package, except that a declaration of net quantity blown, formed, or molded on a glass or plastic surface is permissible when all label information is blown, formed, or molded on the surface.

8.1.3. Color Contrast. -- The declaration or declarations of quantity shall be in a color that contrasts conspicuously with its background, except that a declaration of net quantity blown, formed, or molded on a glass or plastic surface shall not be required to be presented in a contrasting color if no required label information is on the surface in a contrasting color.

8.1.4. Free Area. -- The area surrounding the quantity declaration shall be free of printed information:

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

(b) to the left and right, by a space equal to twice the width of the letter "N" of the style and size of type used in the declaration.

8.1.5. Parallel Quantity Declaration. -- The quantity declaration shall be presented in such a manner as to be generally parallel to the declaration of identity and to the base on which the package rests as it is designed to be displayed.

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

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

For Figure 1:

$$6 \text{ in} \times 8 \text{ in} = 48 \text{ sq in}$$

This is the area of the principal display panel

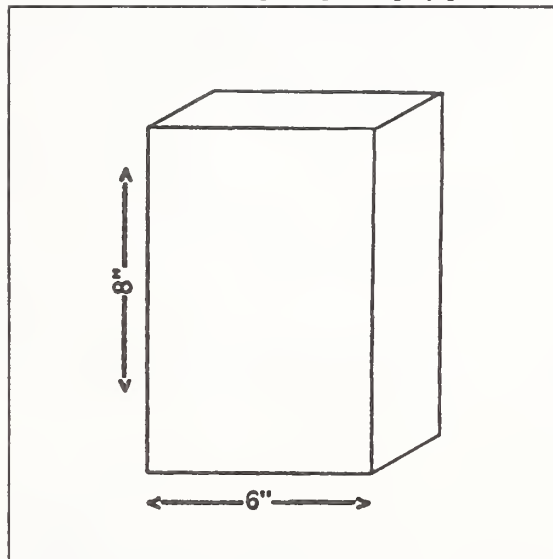


Figure 1.

(b) in the case of cylindrical or nearly cylindrical container, 40 percent of the product of the height of the container times the circumference;

For Figure 2:

$$10 \text{ in} \times 2 \text{ in} = 20 \text{ sq in}$$

$$20 \text{ sq in} \times 0.40 = 8 \text{ sq in}$$

area of principal display panel = 8 sq in

See also Section 10.7.

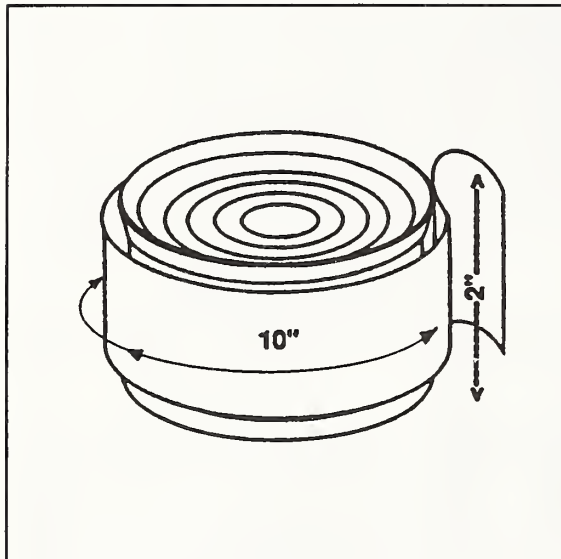


Figure 2.

For Figure 3:

The area of the principal display panel is the same in both examples. The declaration of net quantity of contents must be of the same height in both cases. It is not the size of the label that is used to determine the minimum type size of the quantity statement, but the size of the surface of the package exposed to view to the customer. The package on the right side of the figure has a spot label; see Sections 2.12. and 11.32.

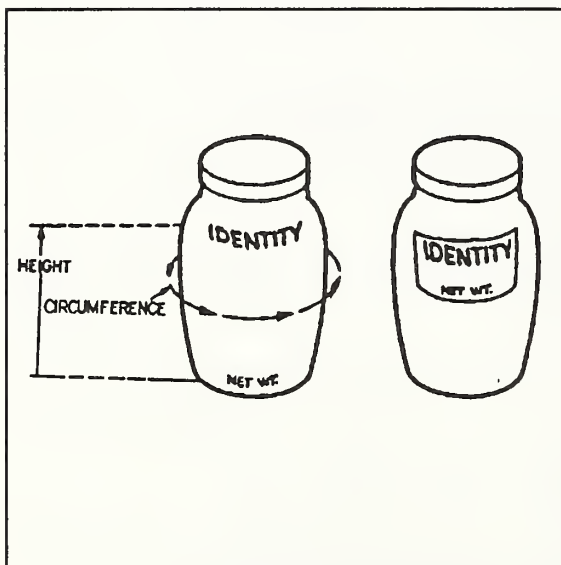


Figure 3.

(c) in the case of any other shaped container, 40 percent of the total surface of the container, unless such container presents an obvious principal display panel (e.g., the top of a triangular or circular package of cheese, or the top of a can of shoe polish), in which event the area shall consist of the entire such surface.

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

8.2.1. Minimum Height of Numbers and Letters. -- The height of any letter or number in the required quantity declaration shall be not less than that shown in Table 1 with respect to the area of the panel, and the height of each number of a common fraction shall meet one-half the minimum height standards. In the case of the symbol for milliliter, the "m" shall meet the minimum height standard.
(Amended 1982)

8.2.2. Numbers and Letters: Proportion. -- No number or letter shall be more than three times as high as it is wide.

Table 1. Minimum Height of Numbers and Letters

Area of principal display panel	Minimum height of numbers and letters	Minimum height: label information blown, formed, or molded on surface on container
5 square inches (in ²) and less	1/16 inch	1/8 inch
Greater than 5 in ² and not greater than 25 in ²	1/8 inch	3/16 inch
Greater than 25 in ² and not greater than 100 in ²	3/16 inch	1/4 inch
Greater than 100 in ² and not greater than 400 in ²	1/4 inch	5/16 inch
Greater than 400 in ²	1/2 inch	9/16 inch

Section 9. Prominence and Placement: Nonconsumer Packages

9.1. General. -- All information required to appear on a nonconsumer package shall be definitely and clearly stated thereon in the English language. Any required information that is either in hand lettering or hand script shall be entirely clear and equal to printing in legibility.

Section 10. Requirements: Specific Consumer Commodities, Nonconsumer Commodities, Packages, Containers

(Title amended 1979)

10.1. Display Card Package. -- For an individual package affixed to a display card, or for a commodity and display card together comprising a package, the type size of the quantity declaration is governed by the dimensions of the display card.

10.2. Eggs. -- When cartons containing 12 eggs have been designed so as to permit division in half by the

retail purchaser, the required quantity declaration shall be so positioned as to have its context destroyed when the carton is divided.

10.3. Aerosols and Similar Pressurized Containers. -- The declaration of quantity on an aerosol package, and on a similar pressurized package, shall disclose the net quantity of the commodity (including propellant), in terms of weight, that will be expelled when the instructions for use as shown on the container are followed.

10.4. Multi-Unit Packages.¹ -- Any package containing more than one individual "commodity in package form" (see subsection 2.1.) of the same commodity shall bear on the outside of the package a declaration of:

- (a) the number of individual units,
- (b) the quantity of each individual unit, and
- (c) the total quantity of the contents of the multi-unit package: Provided, that any such declaration of total quantity shall not be required to include the paren-

¹*Open multi-unit retail food packages under the authority of the Food and Drug Administration or the U.S. Department of Agriculture that do not obscure the number of units or prevent examination of the labeling on each of the individual units are not required to declare the number of individual units or the total quantity of contents of the multi-unit package, if the labeling of each individual unit complies with requirements so that it is capable of being sold individually. (see also Sections 11.12. and 11.13.)*

(Added 1984)

thetical quantity statement of a dual quantity representation. (Example: soap bars, "6 Bars, Net Weight 75 grams each; Total Net Weight 450 grams)

10.5. Combination Packages. -- Any package containing individual units of dissimilar commodities (such as an antiquing or a housecleaning kit, for example) shall bear on the label of the package a quantity declaration for each unit. (Example: sponges and cleaner: "2 sponges, each 10 centimeters x 15 centimeters x 2 centimeters; 1 box cleaner, net weight 150 grams")

10.6. Variety Packages. -- Any package containing individual units of reasonably similar commodities (such as, for example, seasonal gift packages, variety packages of cereal) shall bear on the label of the package a declaration of the total quantity of commodity in the package. (Example: plastic tableware: 4 spoons, 4 forks, 4 knives, 12 pieces total.)

10.7. Cylindrical Containers. -- In the case of cylindrical or nearly cylindrical containers, information required to appear on the principal display panel shall appear within that 40 percent of the circumference which is most likely to be displayed, presented, shown, or examined under customary conditions of display for retail sale.

10.8. Measurement of Container-Type Commodities, How Expressed. --

10.8.1. General. -- Commodities designated and sold at retail to be used as containers for other materials or objects, such as bags, cups, boxes, and pans, shall be labeled with the declaration of net quantity as follows:

(a) For bag-type commodities, in terms of count followed by linear dimensions of the bag (whether packaged in a perforated roll or otherwise).

When the unit bag is characterized by two dimensions because of the absence of a gusset, the width and length will be expressed:

(1) Metric units - in millimeters except a dimension of one meter or more will be expressed in meters with the remainder in terms of decimal fractions of the meter (Examples: "25 BAGS, 500 millimeters x 600 millimeters" or "50 BAGS, 750 millimeters x 1.2 meters")

(2) Inch-pound units - in inches, except that a dimension of 2 feet or more will be expressed in feet with any remainder in terms of inches or common or decimal fractions of the foot. (Example: "25 BAGS, 17 inches x 20 inches" or "100 BAGS, 20 inches x 2 feet 6 inches" or "50 BAGS, 20 inches x 2-1/2 feet")

When the unit bag is gusseted, the dimensions will be expressed as width, depth, and length.

(3) Metric units - in millimeters except a dimension of one meter or more will be expressed in meters with the remainder in terms of decimal fractions of the meter. (Examples: "25 BAGS, 430 millimeters x 100 millimeters x 500 millimeters" or "50 BAGS, 500 millimeters x 300 millimeters x 1.2 meters")

(4) Inch-pound units - in inches, except that a dimension of 2 feet or more will be expressed in feet with any remainder in terms of inches or the common or decimal fractions of the foot. (Examples: "25 BAGS, 17 inches x 4 inches x 20 inches" or "100 BAGS, 20 inches x 12 inches x 2-1/2 feet")

(b) For other square, oblong, rectangular, or similarly shaped containers, in terms of count followed by length, width, and depth, except depth need not be listed when less than 50 millimeters or 2 inches. (Examples: "2 PANS, 203 millimeters x 203 millimeters" or "2 PANS, 8 inches x 8 inches")

(c) For circular or other generally round-shaped containers, except cups, and the like, in terms of count followed by diameter and depth, except depth need not be listed when less than 50 millimeters or two inches. (Examples: "4 PANS, 200-millimeters diameter x 100 millimeters" or "4 PANS, 8-inches diameter x 4 inches")

(d) Cups - Notwithstanding the above requirements, the net quantity statement for containers such as cups will be listed in terms of count and liquid capacity per unit. (Examples: "24 CUPS, 250 milliliter capacity" or "24 CUPS, 6 fluid ounces capacity")

10.8.2. Capacity. -- When the functional use of the container is related by label references in standard terms of measure to the capability of holding a specific quantity of substance or class of substances such references shall be a part of the net quantity statement and shall specify capacity as follows:

(a) Metric units: Volume measure for all containers and liners. (Examples: "4 BOXES, 1 liter capacity, 150 millimeters x 120 millimeters x 90 millimeters"; "8 BAGS, 200 liter capacity, 85 millimeters x 1.5 meters" or "10 LINERS, 750 millimeters x 1 meter, FITS UP TO 120 LITER CANS")

(b) Inch-Pound Units:

(1) Liquid measure for containers that are intended to be used for liquids, semisolids, viscous materials, or mixtures of solids and liquids. The expressed capacity will be stated in terms of the largest whole unit (gallon, quart, pint, ounce, with any remainder in terms of the common or decimal fraction of that unit). (Examples: Freezer Box - "4 BOXES, 1 quart capacity, 5 inches x 4 inches x 3 inches")

(2) Dry measure for containers that are intended to be used for solids. The expressed capacity will be stated in terms of the largest whole unit (bushel, peck), with a remainder in terms of the common or decimal fraction of that unit. (Example: Leaf Bags - "8 BAGS, 6 bushel capacity, 3 feet x 5 feet")

(3) Where containers are used as liners for other more permanent containers, in the same terms as are normally used to express the capacity of the more permanent containers. (Example: Garbage Can Liners - "10 LINERS, 2 feet 6 inches x 3 feet 9 inches. FITS UP TO 30-GALLON CANS")

10.8.3. Terms. -- For purposes of this section, the use of the terms "CAPACITY," "DIAMETER," and "FLUID" is optional.

10.9. Textile Products, Threads, and Yarns.

10.9.1. Wearing Apparel. -- Wearing apparel (including nontextile apparel and accessories such as leather goods and footwear) sold as single-unit items, or if normally sold in pairs (such as hosiery, gloves, and shoes) sold as single-unit pairs, shall be exempt from the requirements for a net quantity statement by count, as required by subsection 6.4. of this regulation.

10.9.2. Textiles. -- Bedsheets, blankets, pillowcases, comforters, quilts, bedspreads, mattress covers and pads, afghans, throws, dresser and other furniture scarfs, tablecloths and napkins, flags, curtains, drapes, dish-towels, dish cloths, towels, face cloths, utility cloths, bath mats, carpets and rugs, pot holders, fixture and

appliance covers, non-rectangular diapers, slip covers, etc., shall be exempt from the requirements of subsections 6.7.3. and 6.8.7. of this regulation; Provided, that:

(a) The quantity statement for fitted sheets and mattress covers shall state, in centimeters or inches, the length and width of the mattress for which the item is designed, and the size designation of the mattress, if the item is intended to fit a mattress identified as "twin," "double," "queen," "king," "California king," etc. Example: "Double Sheet for 54 inch x 75 inch mattress." (Amended 1987)

(b) The quantity statement for flat sheets shall state, in centimeters or inches, the length and width of the mattress for which the sheet is designed, followed in parentheses by a statement, in centimeters or inches, of the length and width of the finished sheet. The quantity statement shall also state the size designation of the mattress for which the sheet is designed, such as "twin," "double," "queen," "king," "California king," if the item is intended to fit such a mattress. Example: "Twin Flat Sheet for 39 inch x 75 inch mattress (66 inch x 96 inch finished size)." (Amended 1987)

(c) The quantity statement for pillowcases shall state, in centimeters or inches, the length and width of the pillow for which the pillowcase is designed, followed in parentheses by a statement, in centimeters or inches of the length and width of the finished pillowcase. The quantity statement for pillowcases shall also state the size designation of the pillow for which the pillowcase is designed, e.g., "youth," "standard," "queen," etc., if the item is intended to fit such pillows. Example: "Standard Pillowcase for 20 inch x 26 inch pillow (20 inch x 30 inch finished size)." (Amended 1977, 1987)

(d) The quantity statement for blankets, comforters, quilts, bedspreads, mattress pads, afghans, and throws shall state, in centimeters or inches, the length and width of the finished item. The quantity statement shall also state the length of any ornamentation and the size designation of the mattress for which the item is designed, if it is intended to fit, for example, a "twin," "double," "queen," "king," or "California King," etc., mattress. (Amended 1988)

(e) The quantity statement for tablecloths and napkins shall state, in centimeters or inches, the length and

width of the finished item. The quantity statement also may state parenthetically, in centimeters or inches, the length and width of the item before hemming and properly identified as such.

(f) The quantity statement for curtains, drapes, flags, furniture scarfs, etc., shall state, in centimeters or inches, the length and width of the finished item. The quantity statement also may state parenthetically, in centimeters or inches, the length of any ornamentation.

(g) The quantity statement for carpets and rugs shall state, in meters or feet, with any remainder in decimal fractions of the meter for metric sizes or common or decimal fractions of the foot or in inches for inch-pound sizes, the length and width of the item. The quantity statement also may state parenthetically, in centimeters or inches, the length of any ornamentation.

(h) The quantity statement for woven dish towels, dish cloths, towels, face cloths, utility cloths, bath mats, etc., shall state, in centimeters or inches, the length and width of the item. The quantity statement for such items, when knitted, need not state the dimensions.

(i) The quantity statement for textile products such as pot holders, fixture and appliance covers, non-rectangular diapers, slip covers, etc., shall be stated in terms of count and may include size designations and dimensions.

(j) The quantity statement for other than rectangular textile products identified in subsections (a) through (h) shall state the geometric shape of the product and the dimensions that are customarily used in describing such geometric shape. (Examples: "Round scarf: 190 cm diameter; "Oval Tablecloth 70 inches x 100 inches" representing the maximum length and width in this case.)

(k) The quantity statement for packages of remnants of textile products of assorted sizes, when sold by count, shall be accompanied by the term "irregular dimensions" and the minimum size of such remnants.

(Added 1971)

10.9.3. Textiles: Variations from Declared Dimensions. --

(a) For an item with any declared dimension equal to or greater than 60 centimeters or 24 inches, a minus variation greater than 3% of the declared dimension and

a plus variation greater than 6% of the declared dimension should be considered unreasonable.

(b) For an item with any declared dimension less than 60 centimeters or 24 inches, a minus variation greater than 6% of that declared dimension and a plus variation greater than 12% of that declared dimension should be considered unreasonable.

(Added 1971)

10.9.4. Sewing Threads, Handicraft Threads, and Yarns. -- Sewing and handicraft threads shall be exempt from the requirements of subsection 6.7.2. and 6.8.6. of this regulation; Provided, that:

(a) The net quantity statement for inch-pound sizes of sewing and handicraft threads shall be expressed in terms of yards.

(b) The net quantity statement for yarns shall be expressed in terms of weight.

(c) Thread products may, in lieu of name and address, bear a trademark, symbol, brand, or other mark that positively identifies the manufacturer, packer, or distributor, provided that such marks, employed to identify the vendor, shall be filed with the director.

(d) Each unit of industrial thread shall be marked to show its net length in terms of meters or yards or its net weight in terms of kilograms or grams or avoirdupois pounds or ounces, except that ready-wound bobbins that are not sold separately shall not be required to be individually marked to show the number of bobbins contained therein and the net meters or yards of thread on each bobbin.

10.10. Packaged Seed. -- Packages of seeds intended for planting shall be labeled in full accord with this regulation except as follows:

(a) The quantity statement shall appear in the upper thirty percent of the principal display panel.

(b) The quantity statements shall be in terms of the largest whole unit of the metric system for all weights up to 7 grams, and in grams or in ounces for all other weights less than 225 grams or 8 ounces; packaged seeds weighing 225 grams or 8 ounces or more shall not be subject to Section 10.10.

(c) The quantity statement for coated seed, encapsulated seed, pelletized seed, preplanters, seed tapes, etc., shall be in terms of count.
(Added 1972; Amended 1975)

10.11. Mulch: Variations from Declared Volume.¹ -- An individual package minus variation greater than 5 percent of the declared volume shall be considered unreasonable.
(Added 1983)

10.12. Polyethylene Products: Variations from Declared Thickness¹

(a) Any single measurement of thickness:

(1) When the labeled thickness is less than 1 mil (0.001 in), any individual thickness measurement of a polyethylene product may be as much as 35 percent below the labeled thickness (i.e., at least 65% of the labeled thickness).²

(2) When the labeled thickness is 1 mil or larger, any individual thickness measurement of a polyethylene product may be as much as 20 percent below the labeled thickness (i.e., at least 80% of the labeled thickness).³

(b) Average thickness for a single package:

The average thickness of a single package of polyethylene sheeting, film, or bags may be as much as 4 percent below the labeled thickness (i.e., at least 96% of the labeled thickness).
(Added 1985; Amended 1988, 1989)

10.13. Polyethylene Products: Variations from Declared Weight¹ -- An individual package minus variation greater than 4 percent of the declared weight shall be considered unreasonable.
(Added 1989)

¹In addition, the average net contents of lots, shipments, or deliveries must equal or exceed the labeled net contents. See Section 12.1.

²ASTM Standard D2103-86, "Standard Specification of Polyethylene Film and Sheeting," 1986.

³ASTM Standard D-4397-84, "Specification for Polyethylene Sheeting for Construction, Industrial and Agricultural Applications", 1984.

⁴In addition, the average net contents of lots, shipments, or deliveries must equal or exceed the labeled net contents. See Section 12.1.

Section 11. Exemptions

11.1. General. -- Whenever any consumer commodity or package of consumer commodity is exempted from the requirements for dual quantity declaration, the net quantity required to appear on the package shall be in terms of the largest whole unit (except see subsection 10.4.(c)).

11.2. Random Packages. -- A random package bearing a label conspicuously declaring:

(a) the net weight,

(b) the price per kilogram or pound, and

(c) the total price

shall be exempt from the type size, dual declaration, location, and free area requirements of this regulation. In the case of a random package packed at one place for subsequent sale at another, neither the price per unit of weight nor the total selling price need appear on the package, provided the package label includes both such prices at the time it is offered or exposed for sale at retail.

This exemption shall also apply to uniform weight packages of cheese and cheese products labeled in the same manner and by the same type of equipment as random packages exempted by this section.

This exemption shall also apply to packages of fresh fruit or vegetables labeled by count in the same manner and by the same type of equipment as random packages exempted by this section.
(Amended 1989)

11.3. Small Confections. -- Individually wrapped pieces of "penny candy" and other confectionery of less

than 15 grams or 1/2 ounce net weight per individual piece shall be exempt from the labeling requirements of this regulation when the container in which such confectionery is shipped is in conformance with the labeling requirements of this regulation. Similarly, when such confectionery items are sold in bags or boxes, such items shall be exempt from the labeling requirements of this regulation, including the required declaration of net quantity of contents, when the declaration of the bag or box meets the requirements of this regulation.

11.4. Small Packages of Meat or Meat Products.

-- Individually wrapped and labeled packages of meat or meat products of less than 15 grams or 1/2-ounce net weight, which are in a shipping container, need not bear a statement of the net quantity of contents when the statement of the net quantity of contents on the shipping container is in conformance with the labeling requirements of this regulation.

(Added 1987)

11.5. Individual Servings.

-- Individual-serving-size packages of foods containing less than 15 grams or 1/2 ounce or less than 15 milliliters or 1/2 fluid ounce for use in restaurants, institutions, and passenger carriers, and not intended for sale at retail, shall be exempt from the required declaration of net quantity of contents specified in this regulation.

11.6. Cuts, Plugs, and Twists of Tobacco and Cigars.

-- When individual cuts, plugs, and twists of tobacco and individual cigars are shipped or delivered in containers that conform to the labeling requirements of this regulation, such individual cuts, plugs, and twists of tobacco and cigars shall be exempt from such labeling requirements.

11.7. Reusable (Returnable) Glass Containers.

-- Nothing in this Regulation shall be deemed to preclude the continued use of reusable (returnable) glass containers: Provided, that such glass containers ordered after the effective date of this regulation shall conform to all requirements of this regulation.

11.8. Cigarettes and Small Cigars.

-- Cartons of cigarettes and small cigars, containing ten individual packages of twenty, labeled in accordance with the requirements of this regulation, shall be exempt from the requirements set forth in subsection 8.1.1. Location, subsection 8.2.1. Minimum Height of Numbers and Letters, and subsection 10.4. Multi-Unit Packages;

Provided, that such cartons bear a declaration of the net quantity of commodity in the package.

11.9. Packaged Commodities with Labeling Requirements Specified in Federal Law.

-- Packages of meat and meat products, poultry products, tobacco and tobacco products, insecticides, fungicides, rodenticides, and alcoholic beverages shall be exempt from those portions of these regulations requiring dual declarations in customary units and specifying location and minimum type size of the net quantity declaration; Provided, that quantity labeling requirements for such products are specified in Federal Law, so as to follow reasonably sound principles of providing consumer information.

11.10. Fluid Dairy Products, Ice Cream, and Similar Frozen Desserts.

(a) When packaged in 1/2-liquid-pint and 1/2-gallon containers, are exempt from the requirements for stating net contents of 8 fluid ounces and 64 fluid ounces, which may be expressed as 1/2 pint and 1/2 gallon, respectively.

(b) When packaged in 1-liquid-pint, 1-liquid-quart, and 1/2-gallon containers, are exempt from the dual net contents declaration requirements of subsection 6.8.3.

(c) When measured by and packaged in measure containers as defined in "Measure Container Code of National Institute of Standards and Technology Handbook 44," are exempt from the requirements of subsection 8.1.1. that the declaration of net contents be located within the bottom 30 percent of the principal display panel.

(d) Milk and milk products when measured by and packaged in glass or plastic containers of 1/2-pint, 1-pint, 1-quart, 1/2-gallon, and 1-gallon capacities are exempt from the placement requirement of subsection 8.1.1. that the declaration of net contents be located within the bottom 30 percent of the principal display panel; Provided, that other required label information is conspicuously displayed on the cap or outside closure, and the required net quantity of contents declaration is conspicuously blown, formed, or molded on, or permanently applied to that part of the glass or plastic container that is at or above the shoulder of the container.

11.11. Single Strength and Less than Single Strength Fruit Juice Beverages, Imitations Thereof, and Drinking Water. --

(a) When packaged in glass, plastic, or fluid milk type paper containers of 8- and 64-fluid-ounce capacity, are exempt from the requirements of subsection 6.2., to the extent that net contents of 8 fluid ounces and 64 fluid ounces (or 2 quarts) may be expressed as 1/2 pint (or half pint) and 1/2 gallon (or half gallon), respectively.

(b) When packaged in glass, plastic, or fluid milk type paper containers of 1-pint, 1-quart, and 1/2-gallon capacities, are exempt from the dual net contents declaration requirements of subsection 6.8.3.

(c) When packaged in glass or plastic containers of 1/2-pint, 1-pint, 1-quart, 1/2-gallon, and 1-gallon capacities, are exempt from the placement requirements of subsection 8.1.1. that the declaration of net contents be located within the bottom 30 percent of the principal display panel; Provided, that other label information is conspicuously displayed on the cap or outside closure and the required net quantity of contents declaration is conspicuously blown, formed, or molded into or permanently applied to that part of the glass or plastic container that is at or above the shoulder of the container.

11.12. Soft-Drink Bottles. -- Bottles of soft drinks shall be exempt from the placement requirements for the declaration of:

(a) identity, when such declaration appears on the bottle closure, and

(b) quantity, when such declaration is blown, formed, or molded on or above the shoulder of the container and when all other information required by this regulation appears only on the bottle closure.

11.13. Multi-Unit Soft-Drink Packages. -- Multi-unit packages of soft drinks are exempt from the requirement for a declaration of:

(a) responsibility, when such declaration appears on the individual units and is not obscured by the multi-unit packaging, or when the outside container bears a statement to the effect that such declaration will be found on the individual units inside, and

(b) identity, when such declaration appears on the individual units and is not obscured by the multi-unit packaging.

11.14. Butter. -- When packaged in 4-ounce, 8-ounce, and 1-pound packages with continuous label copy wrapping, butter is exempt from the requirements that the statement of identity (subsection 3.1.1.) and the net quantity declaration (subsection 8.1.5.) be generally parallel to the base of the package. When packaged in 8-ounce and 1-pound units, butter is exempt from the requirement for location (subsection 8.1.1.) of net quantity declaration and, when packaged in 1-pound units, is exempt from the requirement for dual quantity declaration (subsection 6.8.2.).
(Amended 1980)

11.15. Eggs. -- Cartons containing 12 eggs shall be exempt from the requirement for location (subsection 8.1.1.) of net quantity declaration. When such cartons are designed to permit division in half, each half shall be exempt from the labeling requirements of this regulation if the undivided carton conforms to all such requirements.

11.16. Flour. -- Packages of wheat flour in conventional 2-, 5-, 10-, 25-, 50-, and 100-pound packages shall be exempt from the requirement in this regulation for location (subsection 8.1.1.) of the net quantity declaration and, when packaged in units of 2 pounds, shall be exempt also from the requirement for a dual quantity declaration (subsection 6.8.2.).
(Amended 1980)

11.17. Small Packages. -- On a principal display panel of 5 square inches or less, the declaration of quantity need not appear in the bottom 30% of the principal display panel if that declaration satisfies the other requirements of this regulation.
(Amended 1980)

11.18. Decorative Containers. -- The principal display panel of a cosmetic marketed in a "boudoir-type" container including decorative cosmetic containers of the "cartridge," "pill box," "compact," or "pencil" variety, and those with a capacity of 1/4 ounce or less, may be a tear-away tag or tape affixed to the decorative container and bearing the mandatory label information as required by this regulation.
(Amended 1980)

11.19. Combination and Variety Packages. --

Combination and variety packages are exempt from the requirements in this regulation for:

- (a) Location (see subsection 8.1.1.),
- (b) Free area (see subsection 8.1.4.), and
- (c) Minimum height of numbers and letters (see subsection 8.2.1.).
(Amended 1989)

11.20. Margarine. -- Margarine in 1-pound rectangular packages, except for packages containing whipped or soft margarine or packages containing more than four sticks, shall be exempt from the requirement in this regulation for location (see subsection 8.1.1.) of the net quantity declaration, and shall be exempt from the requirement for a dual quantity declaration (see subsection 6.8.2.).
(Amended 1980)

11.21. Corn Flour and Corn Meal. -- Corn flour and corn meal packaged in conventional 5-, 10-, 25-, 50-, and 100-pound bags shall be exempt from the requirement in this regulation for location (see subsection 8.1.1.) of the net quantity declaration.
(Amended 1978, 1980)

11.22. Prescription and Insulin-Containing Drugs. -- Prescription and insulin-containing drugs subject to the provisions of Section 503(b) (1) or 506 of the Federal Food, Drug, and Cosmetic Act shall be exempt from the provisions of this regulation.

11.23. Camera Film, Video Recording Tape, Audio Recording Tape and Other Image and Audio Recording Media Intended for Retail Sale and Consumer Use. -- Image and audio media packaged and labeled for retail sale are exempt from the net quantity statement requirements of this regulation that specify how measurement of commodities should be expressed, provided that:

(a) **Unexposed or Unrecorded Media. --** The net quantity of contents of unexposed or unrecorded image and audio media is expressed:

- (1) **For still film, tape, or other still image media,** in terms of the usable or guaranteed number of available still image exposures. The length and

width measurements of the individual exposures, expressed in millimeters or inches, are authorized as an optional statement. (Example, "36 exposures, 36 millimeters x 24 millimeters" or "12 exposures, 2-1/4 inches x 2-1/4 inches.")

(2) **For bulk or movie film,** in terms of length (in meters or feet) of film available for exposure.

(3) **For all other image and/or audio media,** in terms of length of time of electronic media available for recording, together with recording and/or playing speed or other machine settings as necessary. Supplemental information concerning the length of the media may be provided.

Supplemental information may be provided on other than the principal display panel.

Note: Size, length of media, and format details to ensure interchangeability and other characteristics of audio and imaging media are available in the applicable American National Standards.

(b) Exposed, Recorded, or Processed Media. -

- The net quantity of contents of exposed or processed film or prerecorded electronic media shall be expressed in terms of the length of time that is of entertainment value.

"Entertainment value" is defined as that portion of a film, tape, or other media, that commences with the first frame of sound or picture, whichever comes first after the countdown sequence (if any), and ends with either: (a) the last frame of credits; or (b) the last frame of the phrase "The End," or (c) the end of sound, whichever is last.

(Amended 1990)

11.24. Paints and Kindred Products. --

(a) Paints, varnishes, lacquers, thinners, removers, oils, resins, and solvents, when packed in 1-liquid-pint and 1-liquid-quart units shall be exempt from the dual quantity declaration requirements of subsection 6.8.3.

(b) Tint base paint may be labeled on the principal display panel, in terms of a quart or a gallon including the addition of colorant selected by the purchaser, provided that the system employed ensures that the purchaser always obtains a quart or a gallon; and further provided that in conjunction with the required

quantity statement on the principal display panel, a statement indicating that the tint base paint is not to be sold without the addition of colorant is presented; and further provided that the contents of the container, before the addition of colorant, is stated in fluid ounces elsewhere on the label.

Wherever the above conditions cannot be met, containers of tint base paint must be labeled with a statement of the actual net contents prior to the addition of colorant in full accord with all the requirements of this regulation.

(Added 1972; Amended 1980)

11.25. Automotive Cooling System

Antifreeze. -- Antifreeze, when packed in 1-liquid-quart units, in metal or plastic containers, shall be exempt from the dual quantity declaration requirements of subsection 6.8.3.

11.26. Motor Oils. -- Motor oils, when packed in 1-liquid-quart units, shall be exempt from the dual quantity declaration requirements of subsection 6.8.3. Additionally, motor oil in 1-liquid-quart, 1-gallon, 1-1/4-gallon, 2-gallon, and 2-1/2-gallon units, bearing the principal display panel on the body of the container, is exempt from the requirements of SECTION 3. **DECLARATION OF IDENTITY: CONSUMER PACKAGE,** to the extent that the Society of Automotive Engineers (SAE) viscosity number is required to appear on the principal display panel, provided the SAE viscosity number appears on the can lid and is expressed in letters and numerals in type size of at least 6 millimeters or 1/4 inch.

(Amended 1974, 1980)

11.27. Pillows, Cushions, Comforters, Mattress Pads, Sleeping Bags, and Similar Products.

-- Those products, including pillows, cushions, comforters, mattress pads, and sleeping bags, that bear a permanent label as designated by the Association of Bedding and Furniture Law Officials or by the California Bureau of Home Furnishings shall be exempt from the requirements for location (Section 8.1.1.), size of letters or numbers (Section 8.2.1. and 8.2.2.), free area (Section 8.1.4.), and the declarations of identity and responsibility (Sections 3.1. and 5.);

Provided, that declarations of identity, quantity, and responsibility are presented on a permanently attached label and satisfy the other requirements of this Regulation, and further provided that the information on such permanently attached label be fully observable to the purchaser.

(Added 1973)

11.28. Commodities' Variable Weights and Sizes.

-- Individual packaged commodities put up in variable weights and sizes for sale intact, and intended to be weighed and marked with the correct quantity statement prior to or at the point of retail sale, are exempt from the requirements of SECTION 6. **DECLARATION OF QUANTITY: CONSUMER PACKAGES,** while moving in commerce and while held for sale prior to weighing and marking; Provided, that the outside container bears a label declaration of the total net weight.

(Added 1973)

11.29. Packaged Commodities Sold by Count¹.

-- When a packaged consumer commodity is properly measured in terms of count only, or in terms of count and some other appropriate unit, and the individual units are fully visible to the purchaser, such packages shall be labeled in full accord with this Regulation except that those containing six or less items need not include a statement of count.

(Added 1973)

11.30. Fishing Lines and Reels. -- Packaged fishing lines and reels are exempt from the dual quantity declaration requirements of Section 6.8.6.(a); Provided, that length of line or capacity of reel as appropriate is presented in terms of meters or yards in full accord with all other requirements of this Regulation.

(Added 1973)

11.31. Textile Packages. -- Packages of textiles that are required by subsection 6.4.1. to provide a combination declaration stating the quantity of each individual unit and the count shall be exempt from the requirements in this regulation for:

- (a) Location (see subsection 8.1.1.),
- (b) Free area (see subsection 8.1.4.), and

¹When the net contents declaration of a package that may enter interstate commerce includes count, Federal regulations under the Federal Fair Packaging and Labeling Act provide no exemption from declaring the count unless the count is one (1).

(Added 1990)

(c) Minimum height of numbers and letters (see subsection 8.2.1.).

(Added 1971; Amended 1989)

11.32. Spot Label. -- The declaration of quantity of the contents of a package is exempt from Section 8.1.1. Location, requiring the quantity declaration to appear in the bottom 30 percent of the principal display panel, as long as the declaration of quantity appears in the lower 30 percent of the spot label. In no case may the size of the spot label be used to determine the minimum type size; see Section 8.2. for this determination.

(Added 1990)

11.33. Header Strip. -- The declaration of quantity of the contents of a package is exempt from Section 8.1.1. Location, requiring the quantity declaration to appear in the bottom 30 percent of the principal display panel, as long as the declaration of quantity appears in the lower 30 percent of the header strip or header label. In no case may the size of the header strip be used to determine the minimum type size; see Section 8.2. for this determination.

(Added 1990)

Section 12. Variations to Be Allowed

12.1. Packaging Variations. --

12.1.1. Variations from Declared Net Quantity. -- Variations from the declared net weight, measure, or count shall be permitted when caused by unavoidable deviations in weighing, measuring, or counting the contents of individual packages that occur in good packaging practice, but such variations shall not be permitted to such extent that the average of the quantities in the packages of a particular commodity, or a lot of the commodity that is kept, offered, or exposed for sale, or sold, is below the quantity stated, and no unreasonable shortage in any package shall be permitted, even though overages in other packages in the same shipment, delivery, or lot compensate for such shortage. Variations above the declared quantity shall not be unreasonably large.

12.1.2. Variations Resulting from Exposure. --

Variations from the declared weight or measure shall be permitted when caused by ordinary and customary exposure to conditions that normally occur in good distribution practice and that unavoidably result in change of weight or measure, but only after the commodity is introduced into intrastate commerce: Provided, that the

phrase "introduced into intrastate commerce" as used in this paragraph shall be construed to define the time and the place at which the first sale and delivery of a package is made within the State, the delivery being either

(a) directly to the purchaser or to his agent, or

(b) to a common carrier for shipment to the purchaser, and this paragraph shall be construed as requiring that, so long as a shipment, delivery, or lot of packages of a particular commodity remains in the possession or under the control of the packager or the person who introduces the package into intrastate commerce, exposure variations shall not be permitted.

12.2. Magnitude of Permitted Variations. --

The magnitude of variations permitted under Sections 12., 12.1., 12.1.1., and 12.1.2. of this regulation shall be those expressly set forth in this regulation and variations such as those contained in the procedures and tables of National Institute of Standards and Technology Handbook 133, "Checking the Net Contents of Packaged Goods."

(Amended 1976, 1980, 1984, 1988)

Section 13. Retail Sale Price Representations

13.1. "Cents-off" Representations. --

(a) The term "cents-off representation" means any printed matter consisting of the words "cents-off" or words of similar import (bonus offer, 2 for 1 sale, 1¢ sale, etc.), placed upon any consumer package or placed upon any label affixed or adjacent to such package, stating or representing by implication that it is being offered for sale at a price lower than the ordinary and customary retail sale price.

(Amended 1982)

(b) Except as set forth in Section 13.2., the packager or labeler of a consumer commodity shall not have imprinted thereon a "cents-off" representation unless:

(1) The commodity has been sold at an ordinary and customary price in the most recent and regular course of business where the "cents-off" promotion is made.

(2) The commodity so labeled is sold at a reduction from the ordinary and customary price, which reduction is at least equal to the amount of the "cents-off" representation imprinted on the commodity package or label.

(3) Each "cents-off" representation imprinted on the package or label is limited to a phrase that reflects that the price marked by the retailer represents the savings in the amount of the "cents-off" the retailer's regular price; e.g., "Price Marked is ____ Cents Off the Regular Price," "Price Marked is ____¢ off the Regular Price of This Package"; provided, the package or label may in addition bear in the usual pricing spot a form reflecting a space for the regular price, the represented "cents-off," and a space for the price to be paid by the consumer.

(4) The commodity at retail presents the regular price, designated as the "regular price," clearly and conspicuously on the package or label of the commodity or on a sign, placard, or shelf-marker placed in a position contiguous to the retail display of the "cents-off" marked commodity.

(5)(i) Not more than three "cents-off" promotions of any single size commodity may be initiated in the same trade area within a 12-month period;

(5)(ii) At least 30 days must lapse between "cents-off" promotions of any particular size packaged or labeled commodity in a specific trade area; and

(5)(iii) Any single size commodity so labeled may not be sold in a trade area for a duration in excess of 6 months within any 12-month period.

(6) Sales of any single size commodity so labeled in a trade area do not exceed in volume fifty percent (50%) of the total volume of sales of such size commodity in the same trade area during any 12-month period. The 12-month period may be the calendar, fiscal, or market year provided the identical period is applied in this subparagraph and subparagraph (5) of this paragraph. Volume limits may be calculated on the basis of projections for the current year but shall not exceed 50 percent of the sales for the preceding year in the event actual sales are less than the projection for the current year.

(c) No "cents-off" promotion shall be made available in any circumstances where it is known or there is

reason to know that it will be used as an instrumentality for deception or for frustration of value comparison; e.g., where the retailer charges a price that does not fully pass on to the consumers the represented price reduction or where the retailer fails to display the regular price in the display area of the "cents-off" marked product.

(d) The sponsor of a "cents-off" promotion shall prepare and maintain invoices or other records showing compliance with this section. The invoices or other records required by this section shall be open to inspection and shall be retained for a period of one year subsequent to the end of the year (calendar, fiscal, or market) in which the "cents-off" promotion occurs. (Added 1972)

13.2. Introductory Offers. --

(a) The term "introductory offer" means any printed matter consisting of the words "introductory offer" or words of similar import, placed upon a package containing any new commodity or upon any label affixed or adjacent to such new commodity, stating or representing by implication that such new commodity is offered for retail sale at a price lower than the anticipated ordinary and customary retail sale price.

(b) The packager or labeler of a consumer commodity may not have imprinted thereon an introductory offer unless:

(1) The product contained in the package is new, has been changed in a functionally significant and substantial respect, or is being introduced into a trade area for the first time.

(2) Each offer on a package or label is clearly and conspicuously qualified.

(3) No commodity so labeled is sold in a trade area for duration in excess of 6 months.

(4) At the time of making the introductory offer promotion, the offerer intends in good faith to offer the commodity, alone, at the anticipated ordinary and customary price for a reasonably substantial period of time following the duration of the introductory offer promotion.

(c) The packager or labeler of a consumer commodity shall not have imprinted thereon an introductory offer

in the form of a "cents-off" representation unless, in addition to the requirements in paragraph (b) of this section:

- (1) The package or label clearly and conspicuously and in immediate conjunction with the phrase "Introductory Offer" bears the phrase "____ cents-off the after-introductory offer price."
- (2) The commodity so labeled is sold at a reduction from the anticipated ordinary customary price, which reduction is at least equal to the amount of the reduction from the after-introductory offer price representation on the commodity package or label.
- (d) No introductory offer with a "cents-off" representation shall be made available in any circumstance where it is known or there is reason to know that it will be used as an instrumentality for deception or for frustration of value comparison; e.g., where the retailer charges a price that does not fully pass on to consumers the represented price reduction.
- (e) The sponsor of an introductory offer shall prepare and maintain invoices or other records showing compliance with this section. The invoices or other records required by this section shall be open to inspection and shall be retained for a period of one year subsequent to the period of the introductory offer. (Added 1972)

13.3. Economy Size. --

- (a) The term "economy size" means any printed matter consisting of the words "economy size," "economy pack," "budget pack," "bargain size," "value size," or words of similar import placed upon any package containing any consumer commodity or placed upon any label affixed or adjacent to such commodity, stating or representing directly or by implication that a retail sale price advantage is accorded the purchaser thereof by reason of the size of that package or the quantity of its contents.
- (b) The packager or labeler of a consumer commodity may not have imprinted thereon an "economy" size representation unless:

- (1) At the same time the same brand of the commodity is offered in at least one other packaged size or labeled form.

- (2) Only one packaged or labeled form of that brand of commodity labeled with an "economy size" representation is offered.

- (3) The commodity labeled with an "economy size" representation is sold at a price per unit of weight, volume, measure, or count that is substantially reduced (i.e., at least 5 percent) from the actual price of all other packaged or labeled units of the same brand of that commodity offered simultaneously.

- (c) No "economy size" package shall be made available in any circumstances where it is known that it will be used as an instrumentality for deception; e.g., where the retailer charges a price that does not pass on to the consumer the substantial reduction in cost per unit initially granted.

- (d) The sponsor of an "economy size" package shall prepare and maintain invoices or other records showing compliance with paragraph (b) of this section. The invoices or other records required by this section shall be open to inspection and shall be retained for one year. (Added 1972)

Section 14. 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.

Section 15. 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 _____

APPENDIX: Metric/Inch-Pound Conversion Factors**Length**

1 inch =	2.54 cm*	1 millimeter =	0.039 370 1 in
1 foot =	30.48 cm*	1 centimeter =	0.393 701 in
1 yard =	0.9144 m*	1 meter =	3.280 84 ft

Area

1 square inch =	6.4516 cm ² *	1 square centimeter =	0.155 000 in ²
1 square foot =	929.030 cm ²	1 square decimeter =	0.107 639 ft ²
1 square yard =	0.836 127 m ²	1 square meter =	10.763 9 ft ²

Volume or Capacity

1 cubic inch =	16.3871 cm ³	1 cubic centimeter =	0.061 023 7 in ³
1 cubic foot =	0.028 316 8 m ³	1 cubic decimeter =	0.035 314 7 ft ³
1 cubic yard =	0.764 555 m ³	1 cubic meter =	35.314 7 ft ³
			= 1.307 95 yd ³
1 fluid ounce =	29.573 5 mL	1 milliliter =	0.033 814 0 fl oz
1 liquid pint =	473.177 mL	1 liter =	1.05669 liq qt
	= 0.473 177 L	1 liter =	0.264 172 gal
1 liquid quart =	946.353 mL		
	= 0.946 353 L		
1 gallon =	3.785 41 L		
1 bushel =	35.2391 L		

Weight (Mass)

1 ounce =	28.349 5 g	1 milligram =	0.000 035 274 0 oz
1 pound =	453.592 g		= 0.015 432 4 grain
	= 0.453 kg	1 gram =	0.035 274 0 oz
		1 kilogram =	2.204 62 lb

Temperature

$$t_{\circ C} = \frac{5}{9} (t_{\circ F} - 32) \quad t_{\circ F} = 1.8 t_{\circ C} + 32 \quad *$$

NOTE: These conversion factors are given to six significant digits in the event such accuracy is necessary. See Section 6.11.3. Rounding for information about the use of conversion factors in labeling.

*Exactly

Uniform Regulation for the Method of Sale of Commodities

as adopted by
The National Conference on Weights and Measures¹

1. Background

The National Conference on Weights and Measures 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 metric quantities as well as continuing to present requirements for inch-pound quantities. It should be stressed that nothing in this Regulation requires changing to the metric system of measurement. Metric values are given for the guidance of those wishing to adopt new metric quantities of the commodities governed by this Regulation.

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

2. Status of Promulgation

The table on pages 4, 5, 6, and 7 shows the status of adoption (as of July 1991) of the Uniform Regulation for the Method of Sale of Commodities.

¹*The National Conference on Weights and Measures is sponsored by the National Institute of Standards and Technology in partial implementation of its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection."*

Table of Contents

Section	Page
Preamble	83
1. Food Products	83
1.1. Berries and Small Fruits	83
1.2. Bread	83
1.3. Butter, Oleomargarine, Margarine, Butter-Like and/or Margarine-Like Spreads	83
1.4. Flour, Corn Meal, and Hominy Grits	84
1.5. Meat, Poultry, Fish, and Seafood	84
1.5.1. In Combination with Other Foods	84
1.5.2. Clams, Mussels, Oysters, and Other Mollusks.	84
1.5.2.1. Whole clams, oysters, mussels, or other mollusks in the shell	84
1.5.2.2. Whole clams, oysters, mussels, or other mollusks on the half shell	84
1.5.2.3. Fresh oysters, clams, mussels, or other mollusks removed from the shell	84
1.5.2.4. Processed clams, mussels, oysters, or other mollusks, on the half shell	84
1.5.2.5. Canned (heat-processed) mussels, clams, oysters, or other mollusks	84
1.6. Fluid Milk Products	85
1.7. Other Milk Products	85
1.7.1. Factory Packaged Ice Cream and Similar Frozen Products	85
1.8. Pickles	85
1.9. Advertising and Price Computing of Bulk Food Commodities	85
1.9.1. Total Price Computing	85
1.9.2. Unit Price Advertising	85
1.10. Generic Terms for Meat Cuts	85
1.11. Sale of Meat by Carcass, Side, or Primal Cut	86
1.11.1. Prior to delivery	86
1.11.2. At the time of delivery	86
1.11.3. Exemptions	86
1.11.4. Right of cancellation	86
1.12. Ready-to-eat Food	86

Table of Contents (Continued)

Section	Page
2. Nonfood Products	87
2.1. Advertising and Price Computing of Bulk Commodities	87
2.2. Fence Wire Products	87
2.3. Coatings	87
2.4. Fireplace and Stove Wood	87
2.4.1. Definitions	87
2.4.1.1. Fireplace and stove wood	87
2.4.1.2. Cord	87
2.4.1.3. Representation	87
2.4.2. Identity	87
2.4.3. Quantity	87
2.4.4. Prohibition of terms	87
2.4.5. Delivery ticket or sales invoice	87
2.5. Peat and Peat Moss	88
2.5.1. Declaration of quantity	88
2.5.2. Units	88
2.5.2.1. Weight	88
2.5.2.2. Cubic measure	88
2.6. Prefabricated Utility Buildings	88
2.7. Roofing and Roofing Material	88
2.7.1. Definitions	88
2.7.1.1. Square meter	88
2.7.1.2. Square	88
2.7.1.3. Square foot	88
2.7.2. Declaration of quantity	88
2.7.2.1. Common fractions	89
2.7.2.2. Quantity statement	89
2.8. Sealants	89
2.9. Sod and Turf	89
2.9.1. Application	89

Table of Contents (Continued)

Section	Page
2.9.2. Definitions	89
2.9.2.1. Sod	89
2.9.2.2. Turf	89
2.9.2.3. Turf plug	89
2.9.2.4. Turf sod	89
2.9.2.5. Turf sprig	89
2.9.3. Quantity	89
2.9.3.1. Turf sod	89
2.9.3.2. Turf plugs	89
2.9.3.3. Turf sprigs	89
2.10. Softwood Lumber	89
2.10.1. Definitions	89
2.10.1.1. Dressed (surfaced) lumber	89
2.10.1.2. Boards	89
2.10.1.3. Timbers	89
2.10.1.4. Dimension lumber	89
2.10.1.5. Rough lumber	89
2.10.1.6. Matched lumber	90
2.10.1.7. Patterned lumber	90
2.10.1.8. Shiplapped lumber	90
2.10.1.9. Grade	90
2.10.1.10. Species	90
2.10.1.11. Species group	90
2.10.1.12. Representation	90
2.10.1.13. Minimum dressed sizes	90
2.10.2. Identity	91
2.10.3. Quantity	91
2.11. Carpeting	91
2.12. Hardwood Lumber	92
2.13. Polyethylene Products	92
2.13.1. Consumer and Nonconsumer Products	92
2.13.1.1. Sheeting and film	92
2.13.2. Consumer products	92
2.13.2.1. Food wrap	92
2.13.2.2. Lawn and trash bags	92
2.13.2.3. Food and sandwich bags	92

Table of Contents (Continued)

Section	Page
2.13.3. Products not intended for the retail consumer	92
2.13.3.1. Bags	92
2.13.4. Declaration of weight	93
2.14. Insulation.	93
2.14.1. Packaged loose fill insulation except cellulose	93
2.14.2. Packaged loose-fill cellulose insulation	93
2.14.3. Batt and blanket insulation	93
2.14.4. Installed insulation	93
2.15. Solid Fuel Products	93
2.16. Compressed or liquefied gases in refillable cylinders	93
2.16.1. Application	93
2.16.2. Net contents	93
2.16.3. Cylinder labeling	94
2.16.3.1. Tare weights	94
2.16.3.2. Acetylene gas cylinder tare weights	94
2.16.3.3. Acetylene gas cylinder volumes	94
2.16.3.4. Compressed gases such as oxygen, argon, nitrogen, helium, and hydrogen	94
2.17. Precious Metals	94
2.17.1. Definition	94
2.17.1.1. Precious metals	94
2.17.2. Quantity	94
2.18. Mulch	94
2.18.1. Definition	94
2.18.1.1. Mulch	94
2.18.2. Quantity	95
2.19. Kerosene	95
2.20. Gasoline-Alcohol Blends	95
2.20.1. Method of retail sale	95
2.20.2. Documentation for dispenser labeling purposes	95
2.21. Liquefied Petroleum Gas	95

Table of Contents (Continued)

Section	Page
2.22. Liquid Oxygen Used for Respiration	95
2.23. Animal Bedding	96
3. General	96
3.1. Presentation of Price	96
3.2. Allowable Differences: Combination Quantity Declarations	96
3.2.1. Beverageware: pressed and blown tumblers and stemware	96
3.3. Machine Vended Commodities	96
3.4. Railroad Car Tare Weights	96
3.4.1. Newly Stenciled Tare Weights	96
3.4.2. Allowable Difference	96
3.4.3. Verification or Change of Tare Weights	97
3.4.4. Special Cars	97
4. Revocation of Conflicting Regulations	97
5. Effective Date	97

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.
(Added 1989)

Section 1. Food Products¹

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)

1.1.2. Methods of Sale. -- Berries and small fruits shall be offered and exposed for sale and sold by weight, or by volume. If sold by volume, they must be:
(Amended 1991)

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

(2) have capacities per subsection 1.1.2.(2)(a) or subsection 1.1.2.(2)(b). 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.

(a) Metric Capacities - 250 milliliters, 500 milliliters, or 1 liter.
(Added 1979; Amended 1985)

(b) Inch-Pound Capacities - 1/2 dry pint, 1 dry pint, or 1 dry quart.

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. -- This section does not apply to:

(1) bread of metric sizes of 200 grams or less,

(2) bread of inch-pound sizes of 6 ounces or less,

(3) "stale bread" sold and expressly represented at the time of sale as "stale bread," when so sold, the wrappers shall not be considered packages for labeling purposes.

Bread kept, offered, or exposed for sale, or sold, whether or not packaged or sliced, shall have a weight per subsection 1.2(a) or subsection 1.2(b):

(a) Metric Weights - 250 grams, 375 grams, 500 grams, 750 grams, or a multiple of 500 grams.
(Added 1979; Amended 1985)

(b) Inch-Pound Weights - 1/2 pound, 3/4 pound, 1 pound, 1-1/2 pounds, or a multiple of 1 pound.

(Added 1971; Amended 1979, 1980, 1985, 1987 and 1991)

1.3. Butter, Oleomargarine, Margarine, Butter-Like and/or Margarine-Like Spreads.

-- Shall be offered and exposed for sale and sold by weight per subsection 1.3.(a) or subsection 1.3.(b).

¹Packages subject to the Federal Fair Packaging and Labeling Act (except for camera film) must be labeled in inch-pound units of measure. Metric units may also be declared on the principal display panel and may even appear first.
(Added 1982)

(a) Metric Weights¹ - 125 grams, 250 grams, 500 grams, 750 grams, or a multiple of 500 grams.
(Amended 1986)

(b) Inch-Pound Weights¹ - 1/4 pound, 1/2 pound, 1 pound, 1 1/2 pounds, or a multiple of 1 pound.
(Added 1979; Amended 1986)

"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 percent fat and may contain other safe and suitable ingredients.(Added 1985; Amended 1986)
(Added 1971; Amended 1979, 1985 and 1986)

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, or sold only in weights per subsection 1.4.(a) or subsection 1.4.(b); Provided that metric sizes less than 1 kilogram or more than 50 kilograms and that inch-pound sizes less than 2 pounds or more than 100 pounds and shall be permitted.

(a) Metric Weights - 1, 2.5, 5, 10, 25, or 50 kilograms.
(Added 1971; Amended 1979 and 1985)

(b) Inch-Pound Weights - 2, 5, 10, 25, 50, or 100 pounds.

1.5. Meat, Poultry, Fish, and Seafood.² -- 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).
(Amended 1988)

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 that a statement listing the ingredients in order of their predominance by weight must also appear on the label.

(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 percent 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 percent free liquid by weight is permitted for canned oysters.(Added 1986)
(Added 1971; Amended 1982, 1985, 1986 and 1989)

¹*Oleomargarine and margarine are not permitted in multiples of one pound, 500 grams, or multiples of 500 grams because Section 407(b)(2) of the Federal Food, Drug, and Cosmetic Act prohibits margarine and oleomargarine packaged in sizes greater than one pound.*
(Added 1982)

²*See Section 1.12. for additional requirements for ready-to-eat food.*

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 packaged for retail sale only in volumes per subsection 1.6.(a), or subsection 1.6.(b); provided, that metric sizes less than 100 milliliters and inch-pound sizes less than 1 gill shall be permitted.

(a) Metric Volumes - 125 milliliters, 250 milliliters, 350 milliliters, 500 milliliters, 1 liter, or multiples of 1 liter. (Added 1971; Amended 1979, 1982, 1985 and 1989)

(b) Inch-Pound Volumes - 1 gill, 1/2 liquid pint, 10 fluid ounces, 12 fluid ounces, 1 liquid pint, 1 liquid quart, 1/2 gallon, 1 gallon, 1-1/2 gallons, 2 gallons, 2-1/2 gallons, or multiples of 1 gallon.

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; provided, that cottage cheese, cottage cheese products, sour cream, and yogurt¹ shall be packaged for retail sale only in weights per subsection 1.7.(a) or subsection 1.7.(b) and provided further, that the total net weight of multiunit packages need not comply with subsections 1.7.(a) or (b) if their individual units comply.

(a) Metric Weights - 25, 50, 75, 100, 125, 150, 175, 200, 250, 375, 500, 750 grams; 1, 2, and 4 kilograms.

(b) Inch-Pound Weights - 1, 2, 3, 4, 5, 6, 8, 12, 16, 24, 32, 64, 80, and 128 ounces avoirdupois.

(Added 1979)

(Added 1971; Amended 1975, 1976, 1979, 1982, 1985 and 1987)

1.7.1. Factory Packaged Ice Cream and Similar Frozen Products.² -- Ice cream, ice milk, frozen yogurt, and similar products shall be kept, offered, or exposed for sale, or sold in terms of fluid volume.

(Added 1979; Amended 1985 and 1990)

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., grams, kilograms, pounds, ounces, etc.) and not in common or decimal fractions.

1.9.2. Unit Price Advertising. -- The price of food commodities sold from bulk by weight shall be advertised or displayed in terms of whole weight units of kilograms or pounds only, not in common or decimal fractions or in ounces. A supplemental declaration is permitted, in print 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 and 1991)

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:

BAR B Q	Barbecue	POT-RST	Pot Roast
BI	Bone In	RND	Round
BNLS	Boneless	RST	Roast
DBLE	Double	SHLDR	Shoulder
LGE	Large	SQ	Square
N.Y.(NY)	New York	STK	Steak
PK	Pork	TRMD	Trimmed

(Added 1976)

¹Except see 1.7.1. for frozen yogurt.

²For prepackaged measure-containers, intended to be used only once, to determine in advance of sale the quantity of a commodity such as ice cream, ice milk, or sherbet on the basis of liquid measure, the size restrictions noted in Section 4.45. MEASURE-CONTAINERS of National Institute of Standards and Technology Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices," apply. Handbook 44 requires capacities of such measure containers to be a multiple of or a binary submultiple of a quart or liter, except that any capacity less than 1/2 liquid pint or 1/4 liter is permitted. (Added 1986)

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 percent, 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 50 pounds 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, 1985)

1.12. Ready-to-eat Food. -- The following may be sold by weight, measure, or count:

- (a) items sold for consumption on the premises;
- (b) items sold as one of three or more different elements, excluding condiments, comprising a ready-to-eat meal sold as a unit, for consumption elsewhere than on the premises where sold;
- (c) ready-to-eat chicken parts cooked on the premises but not packaged in advance of sale;
(Added 1985)
- (d) sandwiches when offered or exposed for sale on the premises where packed or produced and not intended for resale.

Section 2. Nonfood Products.¹

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.

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 cubic feet, 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. -- A "representation" shall be construed to mean any advertisement, offering, invoice, or the like that pertains to the sale of fireplace or stove wood.

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

2.4.3. Quantity. -- Fireplace and stovewood 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 1/8 cord (16 cubic feet) shall display the quantity in terms of cubic meters, to include decimal fractions of cubic meters; or cubic feet, to include fractions of cubic feet.

(b) **Artificial Compressed or Processed Logs.** -- A single fireplace log shall be sold by weight, and packages of such individual logs shall be sold by weight plus count.

(c) **Stove Wood Pellets or Chips.** -- Pellets or chips greater than 6 inches in any dimension shall be sold by weight. This requirement does not apply to flavoring chips.
(Amended 1976 and 1991)

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 nonpackaged 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;

¹*Packages subject to the Federal Fair Packaging and Labeling Act (except for camera film) must be labeled in inch-pound units of measure. Metric units may also be declared on the principal display panel and may even appear first.*
(Added 1982; Amended 1990)

- (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 percent 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 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 pounds and/or kilograms.

2.5.2.2. Cubic measure. -- Peat and peat moss sold in terms of cubic measures 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 and the quantity from which the final product was compressed (the latter declaration not exceeding the actual amount of material that can be recovered).

(Added 1971; Amended 1975, 1979 and 1983)

2.6. Prefabricated Utility Buildings. -- These 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 metric units shall be declared to the nearest 0.01 meter; inside dimensions in inch-pound 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 metric units, by the square, or by the square foot only if sold in inch-pound units.

(Amended 1979)

2.7.1. Definitions. --

2.7.1.1. Square meter. -- The term "square meter" shall mean 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 term "square" shall mean the quantity of roofing or roofing material that, when applied according to directions or instructions of the manufacturer, will cover an area of 100 square feet exclusive of side laps or side joints; provided, that, 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 term "square foot" shall mean the quantity of roofing or roofing material that, when applied according to the directions or instructions of the manufacturer, will cover one square foot (144 square inches) 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"; for example, "One square covers 100 square feet 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 inch-pound 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. -- 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. -- Turf shall mean a 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. -- Turf plug shall mean 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. -- Shall mean a strip or section of live turf that when severed contains sufficient plant material to remain intact.

2.9.2.5. Turf sprig. -- Shall mean 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.¹ -- Applies to softwood boards, timbers, and dimension lumber that have been dressed on four sides, but shall not apply to rough lumber, to lumber that has been matched, patterned, or shiplapped, or to lumber remanufactured or joined so as to have changed the form or identity, such as individual assembled, or packaged millwork items.

2.10.1. Definitions. --

2.10.1.1. Dressed (surfaced) lumber. -- Lumber that has been dressed (or surfaced) for the purpose of attaining smoothness of surface and uniformity of size.

2.10.1.2. Boards. -- Lumber 1-1/4 inches or less in actual thickness and 1-1/2 inches or more in actual width. Lumber less than 1-1/2 inches in actual width may be classified as strips.

2.10.1.3. Timbers. -- Lumber 1-1/2 inches or more in least actual dimension. Timber may be classified as beams, stringers, posts, caps, sills, girders, purlins, etc.

2.10.1.4. Dimension lumber. -- Lumber from 1-1/2 inches to, but not exceeding, 4-1/2 inches in actual thickness, and 1-1/2 inches or more in actual width. Dimension lumber may be classified as framing, joists, planks, rafters, studs, small timbers, etc.

2.10.1.5. Rough lumber. -- Lumber that has not been dressed but that has been sawed, edged, and trimmed

¹Values in metric units for softwood lumber will not be added until a new standard is developed to cover metric softwood lumber.

at least to the extent of showing saw marks in the wood on the four longitudinal surfaces of each piece for its overall length.

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 U.S. Department of Commerce Voluntary Product Standard 20-70, "American Softwood Lumber Standard," and regional grading rules conforming to VPS 20-70 (See Table 1.)

Table 1. Softwood Lumber Sizes

Minimum standard dressed sizes at the time of manufacture for both unseasoned (green) and dry lumber as published by the U.S. Department of Commerce in Product Standard 20-70

Product Classification (Nominal Size)	Minimum Dressed Sizes (See Note 2)	
	Unseasoned Inches	Dry Inches
Inches		
Dimension Lumber (see Note 1)		
2 x 4	1-9/16 x 3-9/16	1-1/2 x 3-1/2
2 x 6	1-9/16 x 5-5/8	1-1/2 x 5-1/2
2 x 8	1-9/16 x 7-1/2	1-1/2 x 7-1/4
2 x 10	1-9/16 x 9-1/2	1-1/2 x 9-1/4
2 x 12	1-9/16 x 11-1/2	1-1/2 x 11-1/4
Board Lumber		
1 x 4	25/32 x 3-9/16	3/4 x 3-1/2
1 x 6	25/32 x 5-5/8	3/4 x 5-1/2
1 x 8	25/32 x 7-1/2	3/4 x 7-1/4
1 x 10	25/32 x 9-1/2	3/4 x 9-1/4
1 x 12	25/32 x 11-1/2	3/4 x 11-1/4
Note 1. The dry thicknesses of nominal 3" and 4" lumber are 2-1/2" and 3-1/2"; unseasoned thicknesses are 2-9/16" and 3-9/16." Widths for these thicknesses are the same as shown above.		
Note 2. Product Standard 20-70 defines dry lumber as being 19 percent or less in moisture content and unseasoned lumber as being over 19 percent moisture content. The size of lumber changes approximately 1 percent for each 4 percent change in moisture content. Lumber stabilizes at approximately 15 percent moisture content under normal use conditions. (Added 1971)		

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, and either

(c) the length of individual pieces or the lineal footage,

except that the use of nominal dimensions shall be allowed as long as a table of minimum dressed sizes is displayed prominently and the term "nominal" or "nom" is also used in conjunction with any representation of dimensions.
(Added 1971; Amended 1990)

2.11. Carpeting. -- Anyone who sells carpeting 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 metric units, or the price per square yard if sold in inch-pound units and the total price.
(Added 1977; Amended 1979)

2.12. Hardwood Lumber. -- Sales of hardwood 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. Sales of hardwood lumber measured prior to kiln drying shall be quoted, invoiced, and delivered on the basis of net board footage before kiln drying. If the lumber is to be kiln dried at the request of the purchaser, the kiln drying charge shall be clearly shown and identified on the quotation and invoice.
(Added 1977)

2.13. Polyethylene Products. --

2.13.1. Consumer and nonconsumer products offered and exposed for sales shall be sold in the terms given in subsection 2.13.1.1.

2.13.1.1. Sheeting and film. --

- (a) length and width
- (b) area in square feet or square meters
(Amended 1979)
- (c) thickness in mils¹
- (d) weight
(Added 1982)

2.13.2. Consumer products at retail shall be sold in the terms given in subsections 2.13.2.1., 2.13.2.2., and 2.13.2.3.

¹1 mil = 0.001 in

²See Section 10.8.2. of the Uniform Packaging and Labeling Regulation.

2.13.2.1. Food wrap. --

- (a) length and width
- (b) area in square feet or square meters
(Amended 1979)

2.13.2.2. Lawn and trash bags. --

- (a) count
- (b) dimensions
- (c) thickness in mils
- (d) capacity²

2.13.2.3. Food and sandwich bags. --

- (a) count
- (b) dimensions
- (c) capacity²

The capacity statement does not apply to fold-over sandwich bags.

2.13.3. Products not intended for the retail consumer shall be offered and exposed for sale in the terms given in subsection 2.13.3.1.:

2.13.3.1. Bags. --

- (a) count
- (b) dimensions
- (c) thickness in mils
- (d) weight
- (e) capacity²

2.13.4. Declaration of weight. -- The labeled statement of weight for polyethylene sheeting and film products under sections 2.13.1.1., and 2.13.3.1. shall be equal to or greater than the weight calculated by using the formula below. The final value shall be calculated to four digits, and declared to three digits, dropping the final digit as calculated (for example, if the calculated value is 2.078 lb, then the declared net weight shall be 2.07 lb.)

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

W = net weight in pounds;
 T = nominal thickness in inches;
 A = nominal length in inches times nominal width¹ in inches;
 D = density in grams per cubic centimeter as determined by ASTM Standard D1505-68, "Standard Method of Test for Density of Plastics by the Density Gradient Technique" (or latest issue); and
 0.03613 is a factor for converting g/cm³ to lb/in³.

For the purpose of this regulation, the minimum density shall be 0.92 g/cm³.

(Added 1982)

(Added 1977; Amended 1980, 1982, 1987, 1989 and 1990)

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 square feet, 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 those three items 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 square feet 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 cubic meters or cubic feet; kilograms; or pounds and ounces. See Section 2.21. for permitted expressions of net contents for liquefied petroleum gas. A standard cubic foot of gas is defined as a cubic foot at a temperature of 70 °F and a pressure of 14.696 psia

¹The nominal width for bags in this calculation is twice the labeled width.

(or metric equivalent) except for liquefied petroleum gas as stated in Section 2.21.

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

2.16.3.1. Tare Weights. --

(a) **Stamped or Stenciled Tare Weight.** -- For safety purposes, the tare weight shall be legibly and permanently stamped or stenciled on the cylinder. All tare weight values shall be preceded by the letters "TW" or the words "tare weight." The tare weight shall include the weight of the cylinder (including paint), valve, and other permanent attachments. The weight of a protective cap shall not be included in tare or gross weights. The Code of Federal Regulations Title 49, Section 178.50-22 requires the maker of cylinders to retain test reports verifying the cylinder tare weight accuracy to a tolerance of 1 percent.

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

(1) the stamped or stenciled tare weight or

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

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

(1) 1/2 percent for tare weights of 20 lb or less or

(2) 1/4 percent for tare weights of more than 20 lb.

(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.

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

2.16.3.3. Acetylene Gas Cylinder Volumes. -- The volumes of acetylene shall be determined from the product weight using approved tables such as those published in NIST Handbook 133 or those developed using 70 °F and 14.7 cu ft per pound at one atmosphere as conversion factors.

2.16.3.4. 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 the tables and procedures given in NIST Technical Note 1079, Tables of Industrial Gas Container Contents and Density for Oxygen, Argon, Nitrogen, Helium, and Hydrogen and supplemented by additional procedures and tables in NIST Handbook 133.
(Added 1981; Amended 1990)

2.17. Precious Metals. --

2.17.1. Definition. --

2.17.1.1. Precious metals. -- Gold, silver, 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, or platinum component.

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 metric weight. When the measurement or method of sale is expressed in metric weight units, a conversion chart to troy units shall be prominently displayed so as to facilitate price comparison. The conversion chart shall also display a table of troy weights indicating grains, pennyweights, and troy ounces.
(Added 1982)

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.) 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 metric units in terms of the cubic meter or liter; in inch-pound units in terms of the cubic yard or cubic foot.
(Added 1983; Amended 1987)

2.19. Kerosene. -- 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 standard specification adopted by the American Society for Testing and Materials in Specification number D-3699 (1982 or latest revision).
Example: 1K Kerosene; Kerosene - 2K.
(Added 1983)

2.20. Gasoline-Oxygenate Blends. --

2.20.1. Method of retail sale. -- All spark ignition engine fuel kept, offered, or exposed for sale, or sold, at retail containing at least one percent by volume of any oxygenate or combination of oxygenates shall be identified as "with" or "containing" (or similar wording) the specific type of oxygenate(s) in the engine fuel. For example, the label may read "contains ethanol" or "with MTBE/ETBE." This information shall be posted on the upper 50 percent of the dispenser front panel in a position clear and conspicuous from the driver's position, in a type at least 1/2 inch in height, 1/16 inch stroke (width of type).
(Added 1984; Amended 1986 and 1991)

2.20.2. Documentation for dispenser labeling purposes. -- The retailer must be provided, at the time of delivery of the fuel, on an invoice, bill of lading, shipping paper, or other documentation, a declaration of any oxygenate or combination of oxygenates present in concentrations of at least 1 percent by volume in the fuel. This documentation is only for dispenser labeling purposes; it is the responsibility of any potential blender to determine the total oxygen content of the engine fuel before blending.
(Added 1984; Amended 1985, 1986 and 1991)

2.21. Liquefied Petroleum Gas. -- All liquefied petroleum gases, including but not limited to propane, butane, and mixtures thereof, shall be kept, offered,

exposed for sale, or sold by the pound, metered cubic foot¹ of vapor (defined as one cubic foot at 60 °F), or the gallon (defined as 231 cubic inches at 60 °F). All metered sales by the gallon, except those using meters with a maximum rated capacity of 20 gallons per minute or less, shall be accomplished by use of a meter and device that automatically compensates for temperature.
(Added 1986)

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)(i) if sold by weight:

weight of cylinder before filling,

weight of cylinder after filling, and

the net weight of liquid oxygen delivered,

(4)(ii) if sold by measure:

method of measurement and any computation used to arrive at the net quantity of liquid oxygen delivered,

(5) the unit price,

(6) the total computed price, and

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

¹Sources: American National Standards Institute, Inc., "American National Standard for Gas Displacement Meters (500 Cubic Feet per Hour Capacity and Under)", First Edition, 1974, and National Institute of Standards and Technology Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices."

2.23. Animal Bedding. -- Packaged animal bedding of all kinds, except for baled straw, shall be sold by volume, that is, by the cubic meter, cubic yard, cubic foot, or cubic inch. If the commodity is packaged in a compressed state, the quantity declaration shall include both the quantity in the compressed state and the usable quantity that can be recovered. Example: "500 cu in. Expands to 1000 cu in."

(Added 1990)

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 nonconsumer.

(Added 1991)

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) metric:

(1) plus or minus 10 milliliters for items of 200 milliliter capacity or less;

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

(Added 1973; Amended 1974, 1979 and 1980)

(b) inch-pound:

(1) plus or minus 1/4 fluid ounce for items of 5 fluid ounce capacity or less;

(2) plus or minus 5 percent of the stated capacity for items over 5 fluid ounce capacity.

3.3. Machine Vended Commodities. -- All vending machines dispensing packaged commodities shall indicate:

(a) product identity;

(b) net quantity; and

(c) name, address, and telephone number of party responsible for the vending machine.

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; Amended 1991)

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 restenciled tare weights shall be accurately represented to the nearest 50 kilograms for metric units and to the nearest 100 pounds for inch-pound 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 subsection 3.4.2.(a) or subsection 3.4.2.(b).

(a) Metric allowable difference:

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

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

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

(Added 1979)

(b) Inch-Pound allowable difference:

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

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

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

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 multideck racks or special superstructure, mechanical refrigerator cars, and house-type cars equipped with special lading protective devices must be reweighed and restenciled only by owners or their authorized representatives:

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

(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 _____, A.D. 19__.

Signed _____

(Added 1971; Amended 1973)

Uniform Unit Pricing Regulation

as adopted by
The National Conference on Weights and Measures¹

1. Background

The Uniform Unit Pricing Regulation (renamed in 1983) provides a national approach to the subject for those jurisdictions choosing to adopt such a regulation.

The traditional approach of the Conference in drafting Uniform Regulations has been to design specific implementing Regulations for the enforcement of the broader requirements of the Uniform Weights and Measures Law. Given the authority of Section 12.3 and the mandate of Section 16. of this Law, as well as the trend in unit pricing, both voluntary and mandatory, the Unit Pricing Regulation is considered appropriate. Unit pricing has been a traditional concern of the weights and measures official and has been required for random weight packages for a long period of time.

2. Status of Promulgation

The table on pages 4, 5, 6, and 7 shows the status of adoption (as of July 1991) of the Uniform Unit Pricing Regulation.

¹The National Conference on Weights and Measures is sponsored by the National Institute of Standards and Technology in partial implementation of its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection."

Table of Contents

Section	Page
1. Application	103
2. Commodities	103
3. Exemption: Small Packages	104
4. Exemption: Single Item	104
5. Pricing	104
6. Presentation of Price	104
7. Effective Date	104

Uniform Unit Pricing Regulation

Section 1. Application

Except for random weight packages unit priced in accord with existing regulations and uniform weight packages of cheese and cheese products unit priced in the same manner and by the same type of equipment as random weight packages, any retail establishment providing unit price information in addition to the total price, for any commodity listed herein, shall also provide the unit price information for all packaged commodities listed herein and in the manner prescribed herein.

Section 2. Commodities

The standard of reference of all categories listed below shall be the latest edition of the "Standard Industrial Classification Manual" published by the Executive Office of the President, Office of Management and Budget.

Candy	Price per pound
Cereals	Price per pound
Cheese, Natural and Processed	Price per pound
Coffee, Tea, and Cocoa	Price per pound
Cookies and Crackers	Price per pound
Cooking Oils and Shortening	Price per quart or pound
Deodorants, Personal	Price per ounce
Dry Detergents, Soap Powders, and Dry Household Cleaners	Price per pound
Foil, Film, and Other Rolls of Wrapping (except gift wrap)	Price per 50 sq ft
Fruit and Vegetable Juices and Drinks	Price per quart
Fruits and Vegetables	Price per pound or per individual unit, or whole unit of dry measure
Hair Preparations	Price per ounce
Jams, Jellies, Preserves, and Peanut Butter	Price per pound
Liquid Detergents and Household Cleaners and Disinfectants	Price per quart
Liquid Soups and Condensed Liquid Soups	Price per pound or quart
Meat, Poultry, and Seafood	Price per pound
Pet Food	Price per pound
Relishes and Condiments	Price per pound or quart
Rice	Price per pound
Salad Dressings	Price per quart
Sanitary Paper Products	Price per 50 sq ft, or, if by count, per 50 units, including ply
Shaving Preparations	Price per ounce
Soft Drinks	Price per quart
Syrups, Table and Topping	Price per pound or quart
Toilet Water and Colognes	Price per ounce
Toothpaste	Price per ounce

Section 3. Exemption: Small Packages

Any of the commodities listed herein shall be exempt from these provisions when packaged in quantities of less than one ounce (avoirdupois) or one fluid ounce or when the total retail price thereof is ten cents or less.

Section 4. Exemption: Single Item

Any of the commodities listed herein shall be exempt from these provisions when there is only one brand in only one size appearing in a particular retail establishment.

Section 5. Pricing

The unit price information shall be to the nearest tenth of one cent when less than one dollar and to the nearest cent when a dollar or more.

Section 6. Presentation of Price

(a) In any retail establishment in which unit price information is provided in accordance with the provisions of the Regulation, that information may be displayed by means of a sign that offers the unit price for one or more brands and/or sizes of a given commodity, by means of a sticker, stamp, sign, label, or tag affixed to the shelf upon which the commodity is displayed, or by means of a sticker, stamp, sign, label, or tag affixed to the consumer commodity itself.

(b) Where a sign providing unit price information for one or more sizes or brands of a given commodity is used, that sign shall be provided clearly and in a nondeceptive manner in a central location as close as practical to all items to which the sign refers.

(c) If a single sign or tag does provide the unit price information for more than one brand or size of a given commodity, then the following information shall be provided:

- (1) The identity and the brand name of the commodity.
- (2) The quantity of the packaged commodity if more than one package size per brand is displayed.
- (3) The total retail sales price.
- (4) The price per appropriate unit, in accordance with SECTION 2. COMMODITIES.

Section 7. Effective Date

(a) Not less than one-third of the commodity categories listed in section 2 of this Regulation shall be unit priced by any individual retail establishment within 90 days after this Regulation, by its terms, becomes applicable to such establishment.

(b) Full compliance with this Regulation by any individual retail establishment shall be attained within 120 days after this Regulation, by its terms, becomes applicable to such establishment.

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

as adopted by
The National Conference on Weights and Measures¹

1. Background

The Uniform Regulation covering the registration of servicepersons and service agencies was developed and adopted by the National Conference on Weights and Measures in 1966, retitled in 1983, and substantially revised in 1984. It is designed to promote uniformity among those jurisdictions that provide for or are contemplating the establishment of some type of control over the servicing of commercial weighing and measuring devices. It offers to a serviceperson or to a service agency the opportunity to register, and carries with it the privilege of restoring devices to service and of placing new or used devices in service.

Two unique features of the registration plan are its voluntary nature and the provision for reciprocity. Registration is not required; however, the privileges gained make it attractive. Also, in order to provide maximum effectiveness of the program and to reduce to a minimum legal obstacles to service across State lines, provision is made for reciprocity in certification of standards and testing equipment among States.

2. Status of Promulgation

The table on pages 4, 5, 6, and 7 shows the status of adoption (as of July 1991) of the Uniform Regulation for the Regulation of Servicepersons and Service Agencies.

¹*The National Conference on Weights and Measures is sponsored by the National Institute of Standards and Technology in partial implementation of its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection."*

Table of Contents

Section	Page
1. Policy	109
2. Definitions	109
2.1. Registered Serviceperson	109
2.2. Registered Service Agency	109
2.3. Commercial and Law-Enforcement Weighing and Measuring Devices	110
3. Registration Fee	110
4. Voluntary Registration	110
5. Minimum Equipment	110
6. Certificate of Registration	110
7. Privileges and Responsibilities of a Voluntary Registrant	110
8. Placed in Service Report	111
9. Examination and Calibration or Certification of Standards and Testing Equipment	111
10. Revocation of Certificate of Registration	111
11. Publication of Lists of Registered Servicepersons and Registered Service Agencies	111
12. Effective Date	111

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

Section 1. Policy

For the benefit of the users, manufacturers, and distributors of commercial weighing and measuring devices, it shall be the policy of the Director of Weights and Measures, hereinafter referred to as "Director," to accept registration of (a) an individual and (b) an agency providing acceptable evidence that he, she, or it is fully qualified by training or experience to install, service, repair, or recondition a commercial weighing or measuring device; has a thorough working knowledge of all appropriate weights and measures laws, orders, rules, and regulations; and has possession of or available for use, and will use calibrated weights and measures standards and testing equipment appropriate in design and adequate in amount. (An employee of government shall not be eligible for registration.)

The Director will check the qualifications of each applicant. It will be necessary for an applicant to have available sufficient standards and equipment (see Section 5).

It shall also be the policy of the Department to issue to qualified applicants, whose applications for registration are approved, a "Certificate of Registration." This gives authority to remove rejection seals and tags placed on Commercial and Law-Enforcement Weighing and Measuring Devices by authorized weights and measures officials, to place in service repaired devices that were rejected, or to place in service devices that have been newly installed.

The Director is NOT guaranteeing the work or fair dealing of a Registered Serviceperson or Service Agency. He will, however, remove from the registration list any Registered Serviceperson or Service Agency that performs unsatisfactory work or takes unfair advantage of a device owner.

Registration with the Director shall be on a voluntary basis. The Director shall reserve the right to limit or reject the application of any Serviceperson or Service Agency and to revoke his, her, or its permit to remove rejection seals or tags for good cause.

This policy shall in no way preclude or limit the right and privilege of any individual or agency not registered with the Director to install, service, repair, or recondition a commercial weighing or measuring device (however, see Section 7).

(Added 1966, revised 1984)

Section 2. Definitions

2.1. Registered Serviceperson. -- The term "registered serviceperson" shall be construed to mean any individual who for hire, award, commission, or any other payment of any kind, installs, services, repairs, or reconditions a commercial weighing or measuring device, and who voluntarily applies for registration with the Director of Weights and Measures.

(Added 1966)

2.2. Registered Service Agency. -- The term "registered service agency" shall be construed to mean any agency, firm, company, or corporation that for hire, award, commission, or any other payment of any kind installs, services, repairs, or reconditions a commercial weighing or measuring device, and that voluntarily registers itself as such with the Director of Weights and Measures. Under agency registration, identification of individual servicepersons shall be required.

(Added 1966, amended 1984)

2.3. Commercial and Law-Enforcement Weighing and Measuring Devices.

-- The term "Commercial and Law-Enforcement Weighing and Measuring Device" shall be construed to include any weight or measure or weighing or measuring device commercially used or employed in establishing the size, quantity, extent, area, or measurement of quantities, things, produce, or articles for distribution or consumption, purchased, offered, or submitted for sale, hire, or award, or in computing any basic charge or payment for services rendered on the basis of weight or measure. It shall also include any accessory attached to or used in connection with a commercial weighing or measuring device when such accessory is so designed or installed that its operation affects the accuracy of the device. It also includes weighing and measuring equipment in official use for the enforcement of law or for the collection of statistical information by government agencies.

(Added 1966; Amended 1984)

Section 3. Registration Fee

There shall be charged by the Director an annual fee of (\$) per Registered Serviceperson and (\$) per Registered Service Agency to cover costs at the time application for registration is made, and annually, thereafter.

(Added 1966, revised 1984)

Section 4. Voluntary Registration

An individual or agency qualified by training or experience may apply for registration to service weighing devices or measuring devices on an application form supplied by the Director. Said form, duly signed and witnessed, shall include certification by the applicant that the individual or agency is fully qualified to install, service, repair, or recondition whatever devices for the service of which competence is being registered; has in possession or available for use, and will use, all necessary testing equipment and standards; and has full knowledge of all appropriate weights and measures laws, orders, rules, and regulations. An applicant also shall submit appropriate evidence or references as to qualifications. Application for registration shall be voluntary, but the Director is authorized to reject or limit any application.

(Added 1966; Amended 1984)

Section 5. Minimum Equipment

Applicants must have available sufficient standards and equipment to adequately test devices as set forth in the Notes section of each applicable code in NIST Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." When applicable, this equipment will meet the specifications of National Institute of Standards and Technology Handbook 105-1, "Specifications and Tolerances for Reference Standards and Field Standard Weights and Measures, Specifications and Tolerances for Field Standard Weights (NIST Class F)," National Institute of Standards and Technology Handbook 105-2, "Specifications and Tolerances for Reference Standards and Field Standard Weights and Measures, Specifications and Tolerances for Field Standard Measuring Flask," or National Institute of Standards and Technology Handbook 105-3, "Specifications and Tolerances for Reference Standards and Field Standard Weights and Measures, Specifications and Tolerances for Graduated Neck Type Volumetric Field Standards." See also Section 9.

(Added 1984)

Section 6. Certificate of Registration

The Director will review and check the qualifications of each applicant. The Director shall issue to the applicant a "Certificate of Registration," including an assigned registration number if it is determined that the applicant is qualified. The "Certificate of Registration" will expire one year from the date of issuance.

(Added 1966; Amended 1984)

Section 7. Privileges and Responsibilities of a Voluntary Registrant

A bearer of a Certificate of Registration shall have the authority to remove an official rejection tag or mark placed on a weighing or measuring device by the authority of the Director; place in service, until such time as an official examination can be made, a weighing or measuring device that has been officially rejected; and place in service, until such time as an official examination can be made, a new or used weighing or measuring device. The Registered Serviceperson or Service Agency is responsible for installing, repairing, and adjusting devices such that the devices are adjusted as closely as practicable to zero error.

(Added 1966; Amended 1984)

Section 8. Placed in Service Report

The Director shall furnish each Registered Serviceperson and Registered Service Agency with a supply of report forms to be known as "Placed in Service Reports." Such a form shall be executed in triplicate, shall include the assigned registration number, and shall be signed by a Registered Serviceperson or by a serviceperson representing a Registered Agency for each rejected device restored to service and for each newly installed device placed in service. Within 24 hours after a device is restored to service, or placed in service, the original of the properly executed Placed in Service Report, together with any official rejection tag removed from the device, shall be mailed to the Director at (address) . The duplicate copy of the report shall be handed to the owner or operator of the device, and the triplicate copy of the report shall be retained by the Registered Serviceperson or Agency.

(Added 1966)

Section 9. Examination and Calibration or Certification of Standards and Testing Equipment

A registered Serviceperson and a Registered Service Agency shall submit, at least annually to the Director, for examination and certification, any standards and testing equipment that are used, or are to be used, in the performance of the service and testing functions with respect to weighing and measuring devices for which competence is registered. A Registered Serviceperson or Agency shall not use in servicing commercial weighing or measuring devices any standards or testing equipment that have not been certified by the Director. Equipment calibrated by another State weights and measures laboratory that can show traceability to the National Institute of Standards and Technology will also be recognized as equipment suitable for use by Registered Servicepersons or Service Agencies in this State.

(Added 1966, revised 1984)

Section 10. Revocation of Certificate of Registration

The Director is authorized to suspend or revoke a Certificate of Registration for good cause which shall include but not be limited to: taking of unfair advantage of an owner of a device; failure to have test equipment or standards certified; failure to use adequate testing equipment, failure to adjust Commercial or Law-Enforcement Devices to comply with Handbook 44 subsequent to service or repair.

(Added 1966, revised 1984)

Section 11. Publication of Lists of Registered Servicepersons and Registered Service Agencies

The Director shall publish, from time to time as he deems appropriate, and may supply upon request, lists of Registered Servicepersons and Registered Service Agencies.

(Added 1966)

Section 12. Effective Date

This regulation shall become effective on _____.

(Added 1966)

Uniform Open Dating Regulation

as adopted by
The National Conference on Weights and Measures¹

1. Background

Numerous State and local jurisdictions have provided for, or are considering, mandatory open dating of certain packaged commodities. Additionally, many commodities in the marketplace are now voluntarily open dated. Lack of uniformity between jurisdictions could impede the orderly flow of commerce.

In 1985 the National Conference on Weights and Measures, in concert with the Association of Food and Drug Officials, wrote a new Uniform Regulation. It resolved the differences which existed between the versions previously developed by the two organizations independently.

The regulation provides two options for implementation by the States. One requires open dating on all perishable foods. The other permits voluntary open dating of such foods. In the latter (voluntary) case, the open dating must then conform to the uniform regulation. Footnotes to Sections 1.(a) and 3.1. indicate the alternative wording for the voluntary version of the Regulation.

2. Status of Promulgation

The table on pages 4, 5, 6, and 7 shows the status of adoption (as of July 1991) of the Uniform Open Dating Regulation.

¹The National Conference on Weights and Measures is sponsored by the National Institute of Standards and Technology in partial implementation of its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection."

Table of Contents

Section	Page
1. Purpose, Scope, and Application	117
1.1. Purpose	117
1.2. Scope and Application	117
2. Definitions	117
2.1. "Sell By" Date	117
2.2. Perishable Food	117
2.3. Semi-perishable Food	117
2.4. Long Shelf-life Food	117
2.5. Prepackaged	117
2.6. "Best If Used By" Date	117
2.7. Person	117
3. Sale of Perishable Food and Date Determination	117
3.1. "Sell By" Date	117
3.2. Sale After Expiration of "Sell By" Date	118
3.2.1. Advertisement	118
3.2.2. Responsibility for Advertisement	118
3.3. Determination of "Sell By" Date	118
3.3.1. Reasonable Period for Consumption	118
3.3.2. Responsibility for "Sell By" Date	118
3.4. Manner of Expressing Date	118
3.4.1. Month and Day, or Day of Week	118
3.4.2. The Term "Sell By"	118
3.4.3. Abbreviation of Weekday	118
3.4.4. Expression of Month and Day	118
3.4.5. Expression of Year	118
4. Sale of Semi-Perishable and Long Shelf-Life Food	118
4.1. "Best If Used By" Date	118
4.2. Sale After Expiration of "Best If Used By" Date	118
4.3. Manner of Expressing Date	118
5. Placement of the Date	119
6. Factors for the Date Determination	119
7. Records	119
8. Exemptions	119
9. Pre-emption of Local, County, and Municipal Ordinance	119
10. Effective Date	119

Uniform Open Dating Regulation¹

Section 1. Purpose, Scope, and Application

1.1. Purpose.¹ -- The purpose of this regulation is to prescribe mandatory uniform date labeling of pre-packaged, perishable foods, and to prescribe optional uniform date labeling that must be used whenever a packager elects to use date labeling on prepackaged foods that are not perishable. Open dating is intended for use and understanding by both distributors and consumers when judging food qualities.

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

Section 2. Definitions

2.1. "Sell By" Date. -- "'Sell by' date" means a recommended last date of sale that permits a subsequent period before deterioration of qualities described in 2.2., 2.3., and 2.4.

2.2. Perishable Food. -- "Perishable food" means any food having a significant risk of spoilage, loss of value, or loss of palatability within 60 days of the date of packaging.

2.3. Semi-perishable Food. -- "Semi-perishable food" means any food for which a significant risk of spoilage, loss of value, or loss of palatability occurs only after a minimum of 60 days, but within 6 months, after the date of packaging.

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

2.5. Prepackaged. -- "Prepackaged" means packaged prior to being displayed or offered for retail sale.

2.6. "Best If Used By" Date. -- "Best if used by" date means a date prior to deterioration of qualities described in 2.3. and 2.4.

2.7. Person. -- "Person" means an individual, partnership, association, or corporation.

Section 3. Sale of Perishable Food and Date Determination.

3.1. "Sell By" Date.¹ -- A retail food establishment shall not sell or offer for sale a prepackaged perishable food unless it is identified with a "sell by" date as prescribed by this regulation.

¹Alternatively, this regulation may be adopted to require uniformity of open dating of perishable foods whenever a packager voluntarily elects to use date labeling. In such instance, Sections 1.1. and 3.1. are reworded in the following manner:

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

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

3.2. Sale after Expiration of "Sell By" Date.

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

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

3.3. Determination of "Sell By" Date. --

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

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

3.4. Manner of Expressing Date. --

3.4.1. Month and day, or day of week. -- A person described in section 3.3.1. or 3.3.2. shall place or attach to each package of perishable food a date by month and day. However, bakery products with a shelf-life of not more than 7 days may be dated with the day of the week representing the last recommended day of sale.

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

3.4.3. Abbreviation of weekday. -- If the day of the week is solely designated as provided in section 3.4.1., the name of the day may be abbreviated by the use of either the first two or first three letters of the name of the day.

3.4.4. Expression of month and day. -- Except as provided for in section 3.4.1., the date shall be designated by:

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

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

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

(Amended 1987)

3.4.5. Expression of the year. -- The "sell by" date may include the year following the day if such year is expressed as a two or four digit number separated as described in section 3.4.4.

Section 4. Sale of Semi-perishable and Long Shelf-life Food

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

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

4.3. Manner of Expressing Date. -- The "best if used by" date as required by section 4.1. shall be placed upon or attached to each container or package and be limited to the terms "best if used by" or words of similar import followed by or immediately over the date designated by the month and year unless a prominent notice is on the label describing the date as a "best if used by" date and indicating the location of the date. The date shall

be designated by the first three letters of the month followed by a numeral indicating the year. The use of the day of the month is permissible provided that the day of the month is placed prior to the month; for example, 30 Jun 81.

Section 5. Placement of the Date

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

Section 6. Factors for the Date Determination

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

Section 7. Records

A person responsible for establishing the date for perishable, semi-perishable, and long shelf-life food shall keep a record of the method used for the determination of that date. A record revision is necessary whenever a factor affecting date determination is altered. Such record shall be retained for not less than 6 months after the most recent "sell by" or "best if used by" date and be available during normal business hours for examination upon request by (insert agency name).

Section 8. Exemptions

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

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

Section 9. Pre-emption of Local, County, and Municipal Ordinance

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

Section 10. Effective Date

This regulation shall become effective on and after (insert appropriate date).

Uniform Regulation for National Type Evaluation

as adopted by
The National Conference on Weights and Measures¹

1. Background

The Uniform Regulation for National Type Evaluation is a necessary adjunct to recognize and enable participation in the National Type Evaluation Program administered by the National Institute of Standards and Technology. The Regulation specifically authorizes: type evaluation; recognition of a National Institute of Standards and Technology "Certificate of Conformance" of type; the State Measurement Laboratory to operate as a Participating Laboratory, if authorized by the National Institute of Standards and Technology under its program of certification of State Measurement Laboratories; and, the State to charge fees to those persons who seek type evaluation of weighing and measuring devices.

2. Intent

It is the intent of this regulation to have all States use the National Type Evaluation Program, as approved by the National Conference on Weights and Measures, as their examining procedure. If a State does not wish to establish a Participating Laboratory, Section 2.4. Participating Laboratory and Section 4. Participating Laboratory may be deleted.

3. Status of Promulgation

The table on pages 4, 5, 6, and 7 shows the status of adoption (as of July 1991) of the Uniform Regulation for National Type Evaluation.

¹*The National Conference on Weights and Measures is sponsored by the National Institute of Standards and Technology in partial implementation of its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection."*

Table of Contents

Section	Page
1. Application	125
2. Definitions	125
2.1. National Type Evaluation Program	125
2.2. Type Evaluation	125
2.3. Type	125
2.4. Participating Laboratory	125
2.5. Certificate of Conformance	125
2.6. Director	125
3. Certificate of Conformance	125
4. Participating Laboratory	126
5. Revocation of Conflicting Regulations	126
6. Effective Date	126

Uniform Regulation for National Type Evaluation

Section 1. Application

This regulation shall apply to all classes of devices and/or equipment as covered in National Institute of Standards and Technology Handbooks 44, 105-1, 105-2, and 105-3.

Section 2. Definitions

2.1. National Type Evaluation Program. -- The term "National Type Evaluation Program" shall be construed to mean a program of cooperation between the National Institute of Standards and Technology, the National Conference on Weights and Measures, the States, and the private sector for determining, on a uniform basis, conformance of a type with the relevant provisions of National Institute of Standards and Technology Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices," National Institute of Standards and Technology Handbook 105-1, "Specifications and Tolerances for Reference Standards and Field Standard Weights and Measures, Specifications and Tolerances for Field Standard Weights (NIST Class F)," National Institute of Standards and Technology Handbook 105-2, "Specifications and Tolerances for Reference Standards and Field Standard Weights and Measures, Specifications and Tolerances for Field Standard Measuring Flask," or National Institute of Standards and Technology Handbook 105-3, "Specifications and Tolerances for Reference Standards and Field Standard Weights and Measures, Specifications and Tolerances for Graduated Neck Type Volumetric Field Standards."

2.2. Type Evaluation. -- The term "type evaluation" shall be construed to mean the testing, examination, and/or evaluation of a type by a Participating Laboratory under the National Type Evaluation Program.

2.3. Type. -- The term "type" shall be construed to mean a model or models of a particular measurement system, instrument, element, or a field standard that positively identifies the design. A specific type may vary in its measurement ranges, size, performance, and operating characteristics as specified in the Certificate of Conformance.

2.4. Participating Laboratory. -- The term "participating laboratory" shall be construed to mean any State Measurement Laboratory that has been certified by the National Institute of Standards and Technology, in accordance with its program for the Certification of Capability of State Measurement Laboratories, to conduct a type evaluation under the National Type Evaluation Program.

2.5. Certificate of Conformance. -- The term "certificate of conformance" shall be construed to mean a document issued by the National Institute of Standards and Technology based on testing in participating laboratories, said document constituting evidence of conformance of a type with the requirements of National Institute of Standards and Technology Handbooks 44, 105-1, 105-2, or 105-3.

2.6. Director. -- The term "director" means the _____ of the department of _____.

Section 3. Certificate of Conformance

The Director may require any weight or measure, or any weighing or measuring instrument or device to be issued a Certificate of Conformance prior to use for commercial or law enforcement purposes.¹

¹See G-A.1., Section 1.10, General Code, National Institute of Standards and Technology Handbook 44 for definition of "commercial" and "law enforcement equipment."

Section 4. Participating Laboratory

The Director is authorized to operate a Participating Laboratory as part of the National Type Evaluation Program. In this regard, the Director is authorized to charge and collect fees for type evaluation services.

Section 5. 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.

Section 6. 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 _____, 19__.

Uniform Regulation for Motor Fuel

as adopted by
The National Conference on Weights and Measures¹

1. Background

In 1984, the National Conference on Weights and Measures adopted a section (2.20.) in the Uniform Regulation for the Method of Sale of Commodities requiring that motor fuels containing alcohol be labeled to disclose to the retail purchaser that the fuel contains alcohol. The delegates deemed this action necessary since motor vehicle manufacturers were qualifying their warranties with respect to some gasoline-alcohol blends, motor fuel users were complaining to weights and measures officials about fuel quality and vehicle performance, and the American Society for Testing and Materials (ASTM) had not yet finalized quality standards for oxygenated (which includes alcohol-containing) fuels. While many argued that weights and measures officials should not cross the line from quantity assurance programs to programs regulating quality, the delegates were persuaded that the issue needed immediate attention.

A Motor Fuels Task Force was appointed in 1984 and the Nation's governors were contacted, both with the expressed purpose of achieving uniformity in the evaluation and regulation of motor fuels.

The Task Force developed the Uniform Motor Fuel Inspection Law (see the Uniform Laws section of this Handbook) and the Uniform Motor Fuel Regulation to accompany the Law.

The recommended Law requires registration and certification of the motor fuel as meeting ASTM standards. This regulation defines the ASTM standards that will be applied to motor fuel. Section 3 of the Uniform Regulation for Motor Fuel is identical to Section 2.20. of the Uniform Regulation for the Method of Sale of Commodities.

2. Status of Promulgation

The Uniform Regulation for Motor Fuel was adopted by the Conference in 1987. The status of State actions with respect to this Regulation is shown on pages 4, 5, 6, and 7 in the front of this handbook.

¹*The National Conference on Weights and Measures is sponsored by the National Institute of Standards and Technology in partial implementation of its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection."*

Table of Contents

Section	Page
1. Definitions	131
1.1. Spark-Ignition Motor Fuel	131
1.2. Gasoline-Oxygenate Blend	131
1.3. Diesel Fuel	131
2. Fuel Specifications	131
2.1. Spark-Ignition Motor Fuel	131
2.2. Diesel Fuel	131
3. Gasoline-Oxygenate Blends	131
3.1. Method of Retail Sale	131
3.2. Documentation for Dispenser Labeling Purposes	131

Uniform Regulation for Motor Fuel

Section 1. Definitions

1.1. Spark-Ignition Motor Fuel. -- The terms "spark-ignition motor fuel" or "spark-ignition engine fuel" mean gasoline and its blends with oxygenates such as alcohols and ethers.

1.2. Gasoline-Oxygenate Blend. -- For labeling purposes, the term "gasoline-oxygenate blend" means any spark-ignition motor fuel containing one percent or more, by volume, of oxygenates or combinationa of oxygenates, such as but not restricted to ethanol, methanol, or methyl-t-butyl ether.

1.3. Diesel Fuel. -- The term "diesel fuel" means any petroleum liquid suitable for the generation of power by combustion in compression ignition (diesel) engines.

Section 2. Fuel Specifications

2.1. Spark-Ignition Motor Fuel (as defined in this regulation) shall meet ASTM D4814, "Standard Specification for Spark-Ignition Engine Fuel," except that volatility standards for unleaded gasoline blends containing up to 10 percent ethanol shall not be more restrictive than those adopted under the rules, regulations, and Clean Air Act waivers of the U.S. Environmental Protection Agency, and further provided that the gasoline used in the blend meets the volatility specifications of ASTM for the area and season in which the blend is sold.

2.2. Diesel Fuel shall meet current ASTM D975, "Standard Specification for Diesel Fuel Oils."

Section 3. Gasoline-Oxygenate Blends

3.1. Method of retail sale. -- All spark ignition engine fuel kept, offered, or exposed for sale, or sold, at retail containing at least one percent by volume of any oxygenate or combination of oxygenates shall be identified as "with" or "containing" (or similar wording) the specific type of oxygenate(s) in the engine fuel. For example, the label may read "contains ethanol" or "with MTBE/ETBE." This information shall be posted on the upper 50 percent of the dispenser front panel in a position clear and conspicuous from the driver's position, in a type at least 1/2 inch in height, 1/16 inch stroke (width of type). (Amended 1991)

3.2. Documentation for dispenser labeling purposes.-- The retailer must be provided, at the time of delivery of the fuel, on an invoice, bill of lading, shipping paper, or other documentation, a declaration of any oxygenate or combination of oxygenates present in concentrations of at least 1 percent by volume in the fuel. This documentation is only for dispenser labeling purposes; it is the responsibility of any potential blender to determine the total oxygen content of the engine fuel before blending. (Amended 1991)

Excerpts from NCWM Publication 3 NCWM Policy, Interpretations, and Guidelines, Section 2

Subsection 1 - Uniform Weights and Measures Law

2.1.1.	Weight(s) and (or) Measure(s)	135
2.1.2.	Section 19(a) Identity	135
2.1.3.	Definition of Net Weight	135
2.1.4.	Offenses and Penalties, Sale of an Incorrect Device	136
2.1.5.	1.2. Weight: Primary Mill Paper	136

Subsection 2 - Packaging and Labeling

2.2.1.	Gift Packages	136
2.2.2.	Sand	137
2.2.3.	Citrus Sold by 4/5 Bushel	137
2.2.4.	Net Contents Declarations	137
2.2.5.	Lot, Shipment, or Delivery	138
2.2.6.	Aerosols and Similar Pressurized Containers	138
2.2.7.	Aerosol Packaged Products	139
2.2.8.	Variety and Combination Packages	140
2.2.9.	Textile Products	141
2.2.10.	Yarn	142
2.2.11.	Tint Base Paint	142
2.2.12.	Reference Temperature for Refrigerated Products: When a Product is Required to be Maintained under Refrigeration	142
2.2.13.	3. Identity (UPLR) and 1.5.1. In Combination with Other Foods (UMSCR)	143
2.2.14.	Typewriter and Computer Printer Ribbons and Tapes	151

Subsection 3 - Method of Sale of Commodities

2.3.1.	Instant Concentrated Products	151
2.3.2.	Fresh Fruits and Vegetables	151
2.3.3.	Cardboard Cartons	152
2.3.4.	Catalyst Beads	153
2.3.5.	Incense	153
2.3.6.	Sea Shells	153
2.3.7.	Tire Tread Rubber Products	153
2.3.8.	Wiper Blades	153
2.3.9.	Fireplace Logs	153
2.3.10.	Wiping Cloths	154
2.3.11.	Packaged Foods or Cosmetics Sold from Vending Machines	154
2.3.12.	Movie Films, Tapes, Cassettes	154
2.3.13.	Vegetable Oil	154
2.3.14.	Potpourri	155
2.3.15.	Bulk Sales	156
2.3.16.	Animal Bedding	157
2.3.17.	Ready-to-Eat Food - Guideline on Selling Whole Chicken by Count	157

Subsection 4 - Other Uniform Laws and Regulations

This section is reserved for policy or guidelines on other uniform laws and regulations.

Subsection 5 - Net Weight; Package Checking; HB 133

2.5.1.	Net Weight at Retail	158
2.5.2.	Bakery Products: Variations from Declared Net Weights	158
2.5.3.	Commodity Requirements, Flour	158
2.5.4.	Wet Tare Tests on Packages from Federally Inspected Plants	159
2.5.5.	Model Agreement Between a State or Local Government and Food Safety Inspection Service, U.S. Department of Agriculture, for the Determination of Net Contents of Federally Inspected Meat and Poultry Products	159
2.5.6.	Guidelines for NCWM Resolution of Requests for Recognition of Moisture Loss in Other Packaged Products	163

Subsection 6 - Motor Fuels and Other Commodities

2.6.1.	Retail Gas Sales and Metric Price Computations in General	164
2.6.2.	Price Posting	164
2.6.3.	Octane Posting Regulations	166
2.6.4.	Multi-Tier Pricing: Motor Fuel Deliveries (Computing Pumps or Dispensers)	167
2.6.5.	Cereal Grains and Oil Seeds	168
2.6.6.	Basic Motor Fuels Testing Laboratory	168

2.1.1. Weight(s) and (or) Measure(s) (L&R, 1985, p. 77)

The measuring elements of a point-of-sale system are "weights and/or measures". Errors in pricing when found in point-of-sale systems come under "Misrepresentation of Pricing" in the weights and measures law, and are under the jurisdiction of weights and measures.

Background

A recommendation was made to change the definition of "weights and measures" in the Uniform Weights and Measures Law to specifically define a scanner or point-of-sale system as under weights and measures jurisdiction.

Several State representatives said that they had enforcement problems when a scanner or point-of-sale system was being used and when the price marked on an item (or on the shelf) was not the same as the price printed on the receipt. These officials believe that unless the law specifically defines these devices as "weights and measures", they have no jurisdiction over the devices' function.

The Committee disagreed. The NCWM Uniform Weights and Measures Law has a section that forbids the practice of a different price on the retail shelf as compared with the price provided by a scanner. Section 15 of the Uniform Weights and Measures Law reads:

No person shall misrepresent the price of any commodity or service sold, offered, exposed, or advertised for sale by weight, measure, or count, nor represent the price in any manner calculated or tending to mislead or in any way deceive a person.

This section (plus Section 14 forbidding misrepresentation of quantity), if enacted by a State, already provides enforcement authority over scanners and point-of-sale systems.

In addition, the Committee does not wish to set a precedent by listing by name the types of devices that might be considered weights and measures devices. This might provide a potential "loop-hole" for those devices not specifically listed. Finally, the Committee members pointed out that it is the human element (the person reading in data or receiving price updates) that introduces the discrepancies in shelf and receipt prices rather than any inherent incapability of the reading device or scanner. Therefore, it is much more effective to forbid the practice of mispricing rather than focus on a single device or apparatus as the means for obtaining compliance.

2.1.2. Section 19(a), Identity (L&R Committee, 1986, p. 143)

Packaged food not containing meat or poultry does not have to have an identity statement if the identity of the commodity can easily be identified through the wrapper or container.

Background

Virginia Weights and Measures recommended revision to Section 19(a) of the Uniform Weights and Measures Law (UWML) to eliminate the exemption of an identity statement from packages when the item "can easily be identified through the wrapper or container". The Committee is of the opinion that there is merit in retaining the language in Section 19(a) of the Uniform Law. Packages of fresh product put up in a retail establishment are considered to be packages as long as a price is attached. If the exemption were eliminated, such packages instead of being marked, for example, "12/89 cents" would have to be marked "lemons, 12/89 cents". It was argued that there could be a problem in deciding whether or not a commodity could "easily be identified (such as might occur in an ethnic specialty grocery or with an exotic produce item)". In researching the issue, the Committee has determined that Title 21, Section 101.100(b)(3) of the Code of Federal Regulations specifically exempts the food identity statement from having to appear "... if the common or usual name of the food is clearly revealed by its appearance". Since no specific problems of enforcement were brought to the attention of the Committee concerning this issue, the Committee recommends no change to Section 19(a) at this time. However, the Committee recommends that Sections 3.1. and 4. of the Uniform Packaging and Labeling Regulation be footnoted as follows:

Section 19(a) of the Uniform Weights and Measures Law, and 21 CFR 101.100(b)(3) for non-meat and non-poultry foods, specifically exempt packages from identity statements if the identity of the commodity "can easily be identified through the wrapper or container".

2.1.3. Definition of Net Weight (L&R, 1987, p. 123)

1. It is the intent of this definition to include truck loads of commodities, not just packages ("containers").
2. It is not the intent to define the net weight of packaged goods as requiring dry tare
("... excluding ... substance(s) not considered to be part of the commodity" could just as well be

interpreted as excluding liquids not considered part of the commodity at the time of sale).

3. It is also the intent to permit more specific definitions as the occasion warrants
("... material(s) ... not considered ... part of the commodity" might include dirt or "foreign material" in a commodity).

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. 1.2. Weight; Primary Mill Paper

(L&R, 1990, p. 81)

Interpretation

Nonconsumer 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 one percent of the gross weight. It is recycled by the purchaser in his 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 opinion of the Committee, 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 nonconsumer 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.

2.2.1. Gift Packages

(Resol. 1975, p. 237)

See also Interpretation 2.2.8.

Interpretation

Seasonal gift packages are often put up in retail stores in baskets and other decorative containers using cellophane or other clear flexible wrap to enclose a number of similar or dissimilar prepackaged items (cheese, jellies, sausages, wine, fruit, for examples). The resulting combination or variety package must have a legally conforming label including the net contents statement.

2.2.2. Sand
(L&R, 1978, p. 151)

Interpretation

Sand put up in permanent wooden bins is a consumer package and must be labeled with all mandatory information as required by the Uniform Packaging and Labeling Regulation.

Background

The State of Hawaii raised the issue of the sale of sand in permanent wooden bins and sold by price per cubic measure. The committee agrees with Hawaii that the sale of sand in this manner is subject to the Uniform Packaging and Labeling Regulation, under the definition of "Consumer Package" (Sec. 2.2 of the Uniform Packaging and Labeling Regulation), and that no further action is needed.

2.2.3. Citrus Sold by 4/5 Bushel
(L&R, 1974, p. 220)

Interpretation

The trade practice of crating citrus fruit in 4/5 bushel units is a long-standing one. It is not intended to be a consumer package. If offered as a consumer package, the general consumer usage and trade custom in the particular State would have to be explored:

Section 6.10.(b)(1) of the Uniform Packaging and Labeling Regulation would permit a declaration employing different fractions in the net quantity declaration other than those permitted under Section 6.10.(b) if there exists a firmly established practice of using 4/5 bushel in consumer sales and trade custom.

Background

It has been called to the attention of the committee that certain commodities are being sold to consumers in "unacceptable" fractional units of dry measure in violation of Section 6.10. of the Uniform Packaging and Labeling Regulation. Specifically, the Committee has been asked for an interpretation as to whether the packaging of oranges in a 4/5 bushel, which is later sold unweighed to a consumer, is a violation of the binary submultiple principle as implied in 6.10.(b).

Some Committee members asserted that a clear exception exists under Section 6.10.(b)(1) which is applicable to this long established tradition of crating citrus fruit in 4/5 of a bushel. Approximately 85 percent of this fruit is sold by this trade practice. Additionally, it was asserted that the packager never intended the 4/5 bushel to be a consumer package, but if the 4/5 bushel of citrus fruit

is sold to consumers, this would be a matter between the appropriate State or local official and the retailer.

The consensus of the Committee is that this action of the packagers is not in violation of the indicated section.

2.2.4. Net Contents Declarations

(L&R, 1982, p. 147)[Editor's Note: The following guideline has been revised in light of the revision in 1991 to Section 6.11.3. Rounding of the Uniform Packaging and Labeling Regulation.]

See also Guideline 1.6.3.

Interpretation

When declaring package net contents in metric units, several sections of the Uniform Packaging and Labeling Regulation provide guidance:

6.8.1. proviso, 6.10., and 6.11.3.:

- o Accuracy in the converted value should never be sacrificed or exaggerated;
- o Metric fractions must never be carried out beyond three decimal places; inch-pound fractions to only two places;

Background and Discussion

The Committee discussed the need for additional guidance to packagers who wish to declare metric units in addition to inch-pound on their package labels. One question that came before the Committee was: What is the appropriate metric declaration for a package labeled "1 oz"; should it be "28.3 g" or "28.34"? Another related problem was that of a packager who labeled his canned goods "7 oz" in the U.S. and wished to add "200 g" to the same label in order to export the same product to a country with standardized size requirements. (In this latter case, 7 oz is equivalent to 198 g.)

The Committee is of the opinion that adequate information and guidance already exists in the Uniform Packaging and Labeling Regulation, Sections 6.8.1. proviso, 6.10. (with emphasis on 6.10.(d)), and 6.11.3.

Thus, if the examples above are evaluated in terms of these sections, the Committee hopes that this will constitute sufficient guidance for other problems or questions that packagers may have within the general area of metric declarations.

In the example of suitable metric declaration for a 1-oz package, a key to this decision is found in Section 6.11.3.

in which it is stated that "the number of significant digits retained should be such that accuracy is neither sacrificed nor exaggerated." It may be entirely appropriate that one ounce of candy be labeled 28 g but that one ounce of costly automobile chemical be labeled 28.34 g. The declaration should neither exaggerate accuracy (which a candy label reading 28.3 g may do--depending on the measurement accuracy of the candy packaging system) nor sacrifice accuracy (which a chemical label reading 28.3 g may do, if the packager delivers each package with the accuracy of 0.01 g).

In the second example, a packager wishing to meet standardized package requirements of other countries can, within the statement of principle in Section 6.11.3., label 7 oz packages as 200 g. Seven oz is not equivalent to 200 g and the converted value of 198 g must be rounded up to 200 g if a "round" metric size is desired. There are two other possibilities that packagers in such situations may wish to explore. The first is to determine if there are restraints (among Federal regulations that may cover any given product) to making "200 g" the primary (first) declaration on the package and then the declaration in parenthesis (or second) to be "7.05 oz" (the calculated inch-pound representation). The significance of this change in label is that the product fill weight may have to be increased in order to meet the average requirement for 200 g (or 7.05 oz). The second possibility is, of course, to consider over-labeling or separate labels for export.

Weights and measures officials should test the net contents of packages against the largest declaration, whether metric or inch-pound.

2.2.5. Lot, Shipment, or Delivery (L&R, 1981, p. 95)

Policy

The requirements for the average package net contents to meet or exceed the labeled declaration may be applied to production lots, shipments, or deliveries. Shipments or deliveries are smaller collections of packages than production lots that may or may not consist of mixed lot codes.

Emphasis in inspection activities should be placed on warehouse and in-plant testing, without neglecting retail consumer protection.

Background

The Committee heard a petition from the California Brewers Association to define a lot as

"a selection of containers under one roof produced by a single company of the same size, type and style, manufactured or packed under similar conditions with a minimum number to be equivalent to one production line shift."

The intention of the petition is to focus Weights and Measures enforcement on production lots as opposed to small collections of packages on retail shelves, because the production lot is under the control of the packager.

An alternative proposal was made that would require mingling of lot and date codes in package inspection at warehouse locations.

The Committee has reviewed the proposals in light of Sections 7.6. and 12.1. of the Uniform Packaging and Labeling Regulation which refers to "shipment, delivery, or lot." If the petition is approved, the terms "shipment" and "delivery" would have to be dropped from this Uniform Regulation.

The Committee recognizes the inherent value of in-plant and warehouse inspection and is of the opinion that, wherever possible, such inspections should be carried out. At the same time, the Committee recognizes the need for the State and local weights and measures officials to protect the consumer at the level where the ultimate sale is made. Therefore, the Committee recommends no change to the Uniform Regulation.

The Committee looks forward to the work of the Special Study Group on Enforcement Uniformity of the NCWM which will be exploring the mechanisms that might be instituted to make in-plant inspection workable.

2.2.6. Aerosols and Similar Pressurized Containers (L&R, 1976, p. 248)

See also Guideline 2.2.7.

Interpretation

It is the opinion of the NCWM that an FDA opinion as expressed in the Fair Packaging and Labeling Act Manual Guide FDA 7563.7, not objecting to volume declarations on aerosol products, does not supersede or preempt State requirements that aerosols be labeled by net weight.

Background

The Department of Commerce through the Office of Weights and Measures of the National Bureau of Standards, under its statutory responsibility for "cooperation with the States in securing uniformity in weights and measures laws and methods of inspection," developed Section 10.3.:

SECTION 10.3. AEROSOLS AND SIMILAR PRESSURIZED CONTAINERS. - The declaration of quantity on an aerosol package, and on a similar pressurized package, shall disclose the net quantity of the commodity (including propellant), in terms of weight, that will be expelled when the instructions for use as shown on the container are followed.

Several States, which are among the 32 that have adopted the Uniform Packaging and Labeling Regulation, indicated that pressurized cans were currently being marked by volume rather than by weight as required above. Industry representatives indicated that according to the Food and Drug Administration, they are permitted to mark this type of container by volume and that for competitive purposes they will continue to do so. The NCWM was asked to contact FDA and inform them that a declaration of volume on pressurized containers is not acceptable to the States since it cannot be verified.

A meeting was requested to express NIST/NCWM's concern over the FDA position on quantity of contents declarations on aerosols, which is found in the Fair Packaging and Labeling Act (FPLA) Manual Guide FDA 7563.7. This Guide states that in the past FDA has not objected to the use of units of volume to declare the net contents of aerosol preparations that would be liquid if not combined with the propellant and a net weight statement in avoirdupois units for products that would be solids if not combined with a propellant. FDA was asked to modify its position to provide that existing State regulations (concerning aerosol quantity of contents declarations) are not superseded by FDA Guidelines. FDA officials stated that FDA would consider the request, but it did not appear at the time of the Interim Meetings that FDA would make any statement to modify its position without following its administrative procedures and permitting interested parties to exhaust every element of due process.

One industry representative stated that there has been a good deal of concern that fluorocarbon propellants may in the long run cause the partial destruction of the ozone layer in the upper atmosphere surrounding the earth, and that the diminution of the ozone layer would have adverse effects on human health. Therefore, they have converted to new formulations which eliminate fluorocarbon propellants. As a result of this conversion to a nonfluorocarbon propellant system, which uses a propellant with a much lower density than that of the usual fluorocarbon propellants, continued use of a weight measure would be highly misleading to the consumer.

Therefore, some spray labels have been changed so as to denote the contents in terms of fluid measure, rather than in terms of weight measure.

They stated that if manufacturers were to be required to use weight measure, consumers would be deceived into buying products, such as hair spray, with a large amount of fluorocarbon, which vaporizes before it reaches the hair, rather than products with a large amount of base, which is what the consumer wants. They further indicated that they wished to avoid a confrontation with the States over this issue and believe that the matter can readily be resolved without the need for litigation. Although the use of fluid measure on the principal panel will give consumers the most helpful information at the point of purchase, the industry would have no objection to putting the net weight on the back of the label.

The Committee wishes to commend FDA for their interest in this matter and the manufacturers who seek to improve their product and its labeling information. The Committee is also encouraged to work with all interested parties to resolve this issue. However, the Committee does not believe that mere guidelines can preempt a Uniform Regulation developed under the technical authority of the Federal agency delegated that authority by Congress and adopted by the States through its representatives, no matter how broad the preemptive clause of an act might be. Additionally, the committee cannot countenance open and notorious violations of State regulations where those violations occurred prior to bringing the issue before the Conference.

Therefore, the Committee believes that NCWM should support a firm stand by the States that their regulations must be respected.

2.2.7. Aerosol Packaged Products (Liaison, 1979, p. 239)

See also Guideline 2.2.6.

Policy

The NCWM recommends all aerosol packages be labeled by net weight. FDA permits volume declarations. The NCWM has requested FDA to change their regulations and revise their interpretation of these regulations.

Substance of Petition

The NCWM petitions the FDA to make the necessary changes to their regulations and interpretation of 21CFR 101.105(g) as appearing in the FDA Fair Packaging and Labeling Manual Guide, 7563.7 pertaining to the quantity of contents declaration on aerosol packaged products.

It is requested that the net quantity statement on aerosol packaged products or similar pressurized packages be made in terms of net weight only. The reasons for recommending such changes are as follows:

1. Net quantity labeling of aerosol packaged products in terms of net weight is a firmly established trade practice for such products.
2. Net quantity labeling of aerosol packaged products in terms of volume is difficult (if not impossible) to verify with consumer verification methods or by conventional package inspection methods. State or local enforcement action is discouraged by such labeling.
3. Since the labeling of aerosol packaged products by volume cannot be compared with the labeling of such products in terms of net weight, labeling in terms of volume and weight inhibits value comparisons and causes consumer confusion with respect to the quantity of product the consumer is buying; in effect, it can be a form of deceptive labeling.
4. Uniformity between all State and Federal regulations is highly desirable both from the standpoint of enforcement and for purposes of fair competition in the marketplace. The Uniform Packaging and Labeling Regulation and the Federal Trade Commission and Environmental Protection Agency Regulations require net quantity labeling of aerosol packaged products in terms of net weight.

2.2.8. Variety and Combination Packages (L&R, 1982, p. 149)

See also Guideline 2.2.1.

Interpretation

a. Seasonal gift packages are "variety packages" within the meaning of the Uniform Packaging and Labeling Regulation if they contain "reasonably similar commodities" (such as various fruits). They are "combination packages" if they contain "dissimilar commodities" (such as wine, fresh fruit, and jellies). Variety package labels must declare the total quantity in the package. Combination package labels must declare a quantity declaration for each portion of dissimilar commodities.

b. The example provided with Section 10.6., Variety Packages of the Uniform Packaging and Labeling Regulation, shows a total quantity declaration and individual declaration for each type of commodity. The individual declaration is not required but is encouraged.

Background

The Committee reviewed Sections 10.5 and 10.6 of the Model Packaging and Labeling Regulation in order to determine the need for further clarification. Several questions have arisen over the years with respect to:

- (1) What are the net contents labeling requirements for seasonal gift packages composed of varying types of commodities or goods all combined into one package?
- (2) Is the example provided in Section 10.6. entirely in keeping with the declaration requirements? (This section requires that total net contents be declared, but the example shows both total and individual net contents.)

It is the opinion of the Committee that there is no need to modify these sections, but the discussions below may serve as guidance to enforcement officials and packagers on these sections.

As to the question of labeling requirements for seasonal gift packages, it must first be determined what the individual units comprising each package are. The following examples are possibilities:

- (a) individual packages of sausage, individual packages of cheese;
- (b) several kinds of fruit of different weights;
- (c) several kinds of fruit, bottle of wine, several packages of cheese.

Examples (a) and (c) above are combination packages and should be labeled with net quantities of each unit or type of unit. It is possible to combine fruit net weight (or count if appropriate) as one declaration, cheese net weight as a second, etc.

Example (b) above is a variety package and must be labeled with the total net weight or count (as appropriate) of fruit in the package. It is also reasonable for packagers to include, for full consumer information, a declaration of the individual net contents of each type of package or item in the gift package, although this latter declaration is not required (e.g., 1 lb bananas, 3 pears, etc.). This is also the key to the second question asked above concerning the example provided in Section 10.6.; that is, although a declaration of individual item net contents is not required, packagers are encouraged to provide additional information wherever useful to the consumer.

2.2.9. Textile Products

(L&R, 1977, p. 215)

Interpretation

(a) When a range of widths (e.g., 58/60) appears on the label of bolts or rolls for yard goods, enforcement action should be taken whenever the action width falls below the lesser of the two widths given as the range (in the example above, when the fabric width is less than 58 inches).

(b) Section 10.9.3. Textiles: Variations from Declared Dimensions of the Uniform Packaging and Labeling Regulation is not to be interpreted as providing tolerances. The average requirement must be met. The average quantity of contents of a lot, shipment, or delivery must equal or exceed the declared dimensions. Dimensions of individual packages of textiles may vary as much as Section 10.9.3. permits, but the average requirement must still be met.

Background

The State of California and the American Textile Manufacturers Institute asked the NCWM Laws and Regulations Committee and the National Bureau of Standards to assist in the resolution of two textile-product issues. In the first issue California asks for help in correcting a short measure condition, apparently a nationwide problem, which has been found in the packaging and labeling of textile yard goods put up on bolts or rolls.

The problem is outlined as follows:

1. Approximate width measurements are being used by some manufacturers in their label declarations. For example, "58/60 inch" width.
2. Label declarations are false and misleading in that actual amounts are less than the quantity represented on the label.
3. Section 10.9.3. of the Uniform Packaging and Labeling Regulation is extremely vague as to its intent and true meaning. Are the substantial variations (3% and 6%) and (6% and 12%) permitted as product tolerances, or are they maximum unreasonable minus and plus errors to be allowed when sampling the product for quantity when using Handbook 67?

California favors the repeal or clarification of Section 10.9.3. and suggests amending Section 10.9.2.(k) to read:

The quantity statement for packages of textile yard goods packaged in the bolt or roll for either wholesale or retail shall state its net measure in terms of yards for the length and width of the item, or its net weight in terms of avoirdupois pounds or ounces, or in terms of their metric equivalent.

During the Interim Meetings, a representative of the American Textile Manufacturers Institute (ATMI) informed committee members that the proposal to identify the width of yard goods with a single measurement (as opposed to a range) would be given serious consideration by their members, after which a recommendation will be finalized and submitted to the Laws and Regulations Committee.

After the Interim Meetings, the National Home Sewing Association said that if a single width declaration is required, the following could result:

- (a) No change in manufacturing process would be effectuated; only the size declaration on bolts would be changed.
- (b) Short measure problems could be created because consumers would look for the fabric to be exactly the stated width and, since the manufacturing processes were not changed, the width is in actuality the same as it was with the range declaration.
- (c) Increased cost to manufacturers would result. One loom is used for many different fibers now; a single width declaration could create a need for many looms for each of the different fibers, thereby imposing "pass-along" costs to consumers.
- (d) Consumer deception would be fostered in that a single declaration implies actual measurement.

California officials state that roll or bolt fabric should be labeled accurately with a single declaration. Additionally, they believe that industry does have enough shrinkage data on fibers used in the manufacturing processes, and thus could provide accurate measurement declaration on finished fabrics or materials.

The Committee believes that accurate quantity information should be provided on consumer products; however, no labeling changes should be required until patterns and yard goods are marketed in metric units. At that time, all measures shall be singularly stated (eliminating dual numbers) and, until that time, any products where size declaration is a range and found to be less than the smaller of the range declaration shall be subject to enforcement action. For example, a product marked "58-60 in" and

found to be less than 58 inches should be considered to be in violation of weights and measures laws and/or regulations.

Additionally, the Committee hereby affirms that the intent of the Variations from Declared Dimensions permitted in Section 10.9.3. in no way eliminates the requirement that quantity declarations for textiles must, on the average, not be less than declared declarations.

2.2.10. Yarn (L&R, 1983, p. 153)

Interpretation

The appropriate net contents declaration for yarn is weight.

Background

A consumer has requested that the net quantity statement for yarn be changed from weight to length. The proposal is based on her use of the product and her experience that darker colors often weigh more per unit of length. Therefore, she has found that a lighter color yarn will "go farther" in her craft application than a darker yarn; she complains that she cannot predict how much yarn of varying colors to purchase based on a weight declaration. The Committee is sympathetic to the request but must support existing labeling requirements for several reasons.

Yarn is by nature extremely stretchy; in order to label yarn by length, a specified tension would have to be applied in order to make any repeatable length measurement. Such a tension would have to be agreed upon by all the manufacturers of yarn, and would have to be applied in any compliance testing of product by weights and measures officials. Even if this tension "standard" were negotiated and decided upon, it would have little real meaning in use by needlecrafters, knitters, and others. The tension applied to yarn in use varies from user to user and from application to application; therefore, the length also varies. Not only does dyeing yarn change the weight, dyeing also changes the length of yarn. For these reasons, industry representatives also support the requirements as they presently are written in the Uniform Packaging and Labeling Regulation.

The Committee recognizes the difficulty of working with this product and suggests that users of yarn consider buying an excess of the yarn over what is expected to be used in any application, and find out before purchase if, after finishing the product, they can return the unopened skeins to the retailers from whom the skeins were purchased.

2.2.11. Tint Base Paint (L&R, 1986, p. 146)

Section 11.12.(b) of the Uniform Packaging and Labeling Regulation currently permits tint base paints (paints to which colorant must be added prior to sale) to be labeled in terms of the volume (a quart or gallon) that will be delivered to the purchaser after addition of the colorant only if three conditions are met:

1. "the system employed ensures that the purchaser always obtains a quart or a gallon,"
2. "a statement indicating that the tint base paint is not to be sold without the addition of colorant is presented on the principal display panel,"
3. "the contents of the container, before the addition of colorant, is stated in fluid ounces elsewhere on the label."

2.2.12. Reference Temperature for Refrigerated Products: When a Product Is Required to be Maintained under Refrigeration (L&R, 1990, p. 86)

Background: Section 6.5.(b) was revised to clarify that the reference temperature of 40 °F applies only to products that must be refrigerated in order to maintain product quality, rather than to items, such as carbonated soft drinks, that are refrigerated for the convenience of the purchaser.

Guideline: The Committee also discussed how an inspector could decide whether a product under refrigeration is required to be maintained under refrigeration. The following guidelines are provided:

1. The traditional food items that normally require refrigeration and are found in refrigerated cases will not ordinarily have any statement about requiring refrigeration. These items include milk, orange juice, and similar products. They may be tested at any temperature at, above or below their reference temperature of 40 °F (4 °C) because such products are at their maximum density at their reference temperature, and the volume of such products will always increase at higher or lower temperatures. Thus any errors made by not measuring at the exact reference temperature will be in the favor of the packer.
2. Food items that normally require refrigeration, but which are processed so as not to require refrigeration prior to opening, will have "refrigerate after opening" or similar wording on the label. Such items as milk and orange juice can be found in this category as well as in the "refrigeration required" category. The two categories can be distinguished by the "refrigerate after opening" statement, which calls

for testing at or above their reference temperature of 68 °F (20 °C).

3. Food items that are not expected to require refrigeration, but which may be refrigerated for the convenience of the consumer (such as carbonated beverages), are to be tested at temperatures of 68 °F (20 °C) or above even when found refrigerated for the convenience of the consumer.

2.2.13. 3. Identity (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.

Meat and Poultry Products

A Consumer Guide to Content and Labeling Requirements (Home and Garden Bulletin No. 236)

Food Standards

The U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS) and the U.S. Department of Health and Human Services' Food and Drug Administration (FDA) share the responsibility of assuring truthful and accurate information on product labels. FSIS has authority over all products containing more than 3 percent fresh meat or at least 2 percent cooked poultry meat. FDA oversees the labeling of most other food products.

Both agencies use a system of "food standards." These standards set requirements on the kinds and amounts of ingredients used in the manufacture of processed foods. Basically, these standards assure consumers that, if a product goes by a particular name, it will have certain characteristics.

USDA Standards of Identity and Composition

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 "chicken a la king" states that, if a product carries this name on its label, at least 20 percent cooked poultry meat must be used in the recipe.

But standards of composition don't 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 chicken in chicken a la king and adding other ingredients to make the product unique.

"Standards of identity," on the other hand, set specific requirements for a food's makeup: the kind and minimum amount of meat or poultry; maximum amount of fat or moisture; and any other ingredients allowed. Corned beef hash and chopped ham are two FSIS-regulated products that have standards of identity.

Label Approval

Before a product may be marketed, its label must be examined and approved by FSIS staff specialists. Food manufacturers submit over 100,000 labels a year for agency review. Label approval applications must include the product name, formula, method of preparation, type of container, and how the label is to be used.

A number of labeling regulations apply across-the-board to all meat and poultry products. These include: appropriate product name; ingredients, listed from most to least, by weight in the product recipe; net quantity of the package contents; name and address of the manufacturer, packer, or distributor; the USDA mark of inspection; and any special care or handling instructions, such as "keep refrigerated." In addition, label photographs or artwork depicting a product must not be misleading.

To assure consumers that the names of meat and poultry products accurately reflect the contents of these products, label reviewers evaluate product formulas and methods of preparation by comparing them with official standards in the meat and poultry inspection regulations. Because unpublished standards are used to evaluate some products, FSIS labeling policies also provide guidance.

Sometimes, no standard exists for a certain product. In these cases, a manufacturer can either give the product a "descriptive" name, such as "Chopped and Formed Cured Pork Product," or use a "fanciful" name accompanied by a descriptive name—"Breakfast Strips: Chopped and Formed Cured Pork Product." A manufacturer may also submit a proposal to FSIS, requesting a standard for the product.

Why You Should Know About Content and Labeling Requirements

Although Federal labeling laws and regulations are established to protect the public, consumers are sometimes unaware of how to use the information on product labels. FSIS content and labeling requirements provide a simple

means by which consumers can learn what to expect from a product if it is labeled with a particular name.

If you know that product names are required to truthfully reflect product content, much can be learned just by noting the order in which major ingredients appear. For example, the name "Beef with Gravy" tells you that there is more beef in that product than in one called "Gravy with Beef."

This guide includes listings for over 250 popular meat and poultry products-from baby food to won ton soup.

For your convenience, the list of meat and poultry product content and labeling requirements is divided into two sections-"Meat Products" and "Poultry Products." Some product definitions include terms that are further defined elsewhere in the guide. For example, the "meatballs" in "spaghetti and meatballs" (page 148) is defined on page 147. The term byproducts is explained on page 150, in the DEFINITIONS section.

Meat Products

All percentages of meat are on the basis of fresh uncooked weight unless otherwise indicated. Keep in mind the meat may shrink in weight after cooking because fat and water cook away.

Baby Food

High Meat Dinner-At least 26% meat.

Meat and Broth-At least 61% meat.

Vegetable with Meat-At least 8% meat.

Bacon (Cooked)-Weight of cooked bacon is 40% of uncooked, cured, smoked bacon.

Bacon and Tomato Spread-At least 20% cooked bacon.

Bacon Dressing-At least 8% cured, smoked bacon.

Barbecue Sauce with Meat-At least 35% meat (cooked basis).

Barbecued Meat-Weight of meat when barbecued can't exceed 70% of the fresh uncooked meat. Must have barbecued (crusted) appearance and be prepared over burning or smoldering hardwood or its sawdust. If cooked by other drying means, product name must mention the method of cooking.

Beans with Bacon or Ham in Sauce-At least 12% bacon or ham (cooked basis).

Beans with Frankfurters in Sauce-At least 20% franks.

Beans with Meat in Sauce-At least 12% meat.

Beans with Meatballs in Sauce-At least 20% meatballs.

Beef a la King-At least 20% beef (cooked basis).

Beef a la Mode-At least 50% beef.

Beef Almandine with Vegetables-At least 18% beef (cooked basis). Product must contain almonds.

Beef and Dumplings with Gravy or Beef and Gravy with Dumplings-At least 25% beef.

Beef Burgundy-At least 50% beef; enough wine to characterize the sauce.

Beef Carbonade-At least 50% beef.

Beef Roulade-At least 50% beef (cooked basis).

Beef Sausage (raw)-No more than 30% fat. No byproducts, no extenders and no more than 3% water.

Beef Stroganoff-At least 45% fresh, uncooked beef or 30% cooked beef and one of the following: at least 10% sour cream; or a combination of at least 7 ½% sour cream and 5% wine; or 9 ½% whole milk, 2% sour cream, and 2½% wine.

Beef with Barbecue Sauce-At least 50% beef (cooked basis).

Beef with Gravy-At least 50% beef (cooked basis).

Breaded Steaks, Chops, etc.-Breading can't exceed 30% of finished product weight.

Breakfast (frozen product containing meat)-At least 15% cooked meat based on total net weight of breakfast.

Breakfast Sausage-No more than 50% fat. May contain 3 ½% binders and extenders, and 3% water.

Brown and Serve Sausage-No more than 35% fat and no more than 10% added water.

Brunswick Stew-At least 25% meat, made up of at least two kinds of meat, including poultry meat. Must contain corn as one of the vegetables.

Burgundy Sauce with Beef and Noodles-At least 25% beef (cooked basis) and up to 20% noodles; enough wine to characterize the sauce.

Burrito-At least 15% meat.

Cabbage Rolls with Meat in Sauce-At least 12% meat.

Cannelloni with Meat and Sauce-At least 10% meat.

Cappelletti with Meat in Sauce-At least 12% meat.

Cheesefurter-Shall contain sufficient cheese to characterize the product.

Chili con Carne-At least 40% meat.

Chili con Carne with Beans-At least 25% meat.

Chili Hot Dog with Meat-At least 40%

Chili Mac-At least 16% meat. Must be qualified with true product name: "Beans, Macaroni, and Beef in Sauce."

Chili Sauce with Meat-At least 6% meat.

Chop Suey (American Style) with Macaroni and Meat-At least 25% meat.

Chop Suey Vegetables with Meat-At least 12% meat.

Chopped Ham-Must be prepared from fresh, cured, or smoked ham, plus certain kinds of curing agents and seasonings. May contain dehydrated onions, dehydrated garlic, corn syrup, and not more than 3% water to dissolve the curing agents.

Chow Mein Vegetables with Meat-At least 12% meat.

Chow Mein Vegetables with Meat and Noodles-At least 8% meat and the noodles must equal no more than 1/3 of the product.

Corn Dog-Must be accompanied by true product name, "Batter Wrapped Franks on a Stick." Limited to 65% batter and a minimum of 35% frankfurter.

Corned Beef and Cabbage-At least 25% corned beef (cooked basis).

Corned Beef Hash-At least 35% beef (cooked basis). Must contain potatoes, curing agents, and seasonings. May contain onions, garlic, beef broth, beef fat, or others. No more than 15% fat; no more than 72% moisture.

Country Ham-A dry-cured product frequently coated with spices. Minimum 4% salt content.

Creamed Meat Products or Creamed Sauce with Meat Products (Chipped Beef, Cooked Beef, Cured Beef, Ham, Franks, Meatballs, etc.)-At least 18% meat product (cooked basis).

Crepe with Meat-Based on total net weight of product; at least 20% meat (cooked basis) if filling has no other major characterizing ingredient, or 10% meat (cooked basis) if one other major characterizing ingredient ("Crepe with Meat and Cheese," for example).

Croquettes-At least 35% meat (cooked basis); 50% fresh basis.

Curried Sauce with Meat and Rice (casserole)-At least 35% meat (cooked basis) in the sauce and meat part. No more than 50% cooked rice.

Deviled Ham-No more than 35% fat; no added moisture; no cereal.

Dinner (frozen product containing meat)-At least 25% meat or meat food product (cooked basis) figured on total meal minus appetizer, bread, and dessert. Consumer package must weigh at least 10 ounces (284 grams).

Dumplings with Meat in Sauce-At least 18% meat.

Egg Foo Yong with Meat-At least 12% meat.

Egg Roll with Meat-At least 10% meat.

Egg Roll with Meat and Seafood-At least 5% meat.

Eggs Benedict-At least 18% cured smoked ham.

Enchilada with Meat-At least 15% meat.

Entree: Meat or Meat Food Product and One Vegetable-At least 50% meat or meat food product (cooked basis).

Frankfurter, Bologna, and Similar Cooked Sausage-May contain only skeletal Meat. No more than 30% fat, 10% added water, and 2% corn syrup. No more than 15% poultry meat (exclusive of water in formula).

Frankfurter, Bologna, and Similar Cooked Sausage with Byproducts or Variety Meats-Same limitations as above on fat, added water, and corn syrup. Must contain at least 15% skeletal meat. These products must be specifically labeled, such as "Frankfurters with Byproducts," and each byproduct or variety meat must be specifically named in the list of ingredients. These include heart, tongue, spleen, tripe, and stomach.

Frankfurter, Bologna, and Similar Cooked Sausage with Byproducts or Variety Meats and which also Contain Nonmeat Binders-Product made with the above formulas and also containing up to 3 1/2% nonmeat binders (or 2% isolated soy protein). These products must be distinctively labeled, such as, "Frankfurters with Byproducts, Nonfat Dry Milk Added," The binders may be named in their proper order in the list of ingredients.

Fried Rice with Meat-At least 10% meat.

Fritter-At least 35% meat; no more than 65% breading.

German Style Potato Salad with Bacon-At least 14% bacon (cooked basis).

Goulash-At least 25% meat.

Gravy-At least 25% meat stock or broth, or at least 6% meat.

Gravy and Sauerbraten-35% meat (cooked basis).

Gravy and Swiss Steak-At least 35% meat (cooked basis).

Gravy and Yankee Pot Roast-At least 35% meat (cooked basis).

Gravy with Beef-At least 35% beef (cooked basis).

Ham (canned)-Limited to 8% total weight gain after processing.

Ham, Cooked or Cooked and Smoked (not canned)-Must not weigh more after processing than the fresh ham weights before curing and smoking; if contains up to 10% added weight, must be labeled, "Ham, Water Added."

Ham a la King-At least 20% ham (cooked basis).

Ham and Cheese Spread-At least 25% ham (cooked basis).

Ham Chowder

Ready-to-Eat-At least 5% ham (cooked basis)

Condensed-At least 10% ham (cooked basis).

Ham Salad-At least 35% ham (cooked basis).

Ham Spread-At least 50% ham.

Hamburger, Hamburg, Burger, Ground Beef, or Chopped Beef-No more than 30% fat; no extenders.

Hash-At least 35% meat (cooked basis).

Hors d'oeuvre-At least 15% meat (cooked basis) or 10% bacon (cooked basis).

Jambalaya with Meat-At least 25% meat (cooked basis).

Knish-At least 15% meat (cooked basis).

Kreplach-At least 20% meat.

Lasagna with Meat and Sauce, or Cheese Lasagna with Meat-At least 12% meat.

Lasagna with Meat Sauce-At least 6% meat.

Lasagna with Sauce, Cheese, and Dry Sausage-At least 8% dry sausage.

Lima Beans with Ham or Bacon in Sauce-At least 12% ham or bacon (cooked basis).

Liver Products, such as Liver Loaf, Liver Paste, Liver Pate, Liver Cheese, Liver Spread, Liverwurst, Braunschweiger, and liver Sausage-At least 30% liver.

Macaroni and Beef in Sauce-At least 12% beef.

Macaroni and Cheese with Ham-At least 12% ham (cooked basis).

Macaroni and Meat-At least 25% meat.

Macaroni Salad with Ham or Beef-At least 12% meat (cooked basis).

Manicotti with Meat in Sauce (contains a meat filling)-At least 10% meat.

Margarine or Oleomargarine-If product is entirely of animal fat or contains some animal fat, it is processed under Federal inspection. Must contain-individually or in combination-pasteurized cream, cow's milk, skim milk, combination of nonfat dry milk and water or finely ground soybeans and water. May contain butter, salt, artificial colorings, vitamins A and D, and permitted functional substances. Finished product must contain at least 80% fat from animal or vegetable sources. Label must clearly state which types of fat are used.

Meat and Dumplings in Sauce-At least 25% meat.

Meat and Vegetables-At least 50% meat.

Meat Casserole-At least 25% fresh, uncooked meat or 18% cooked meat.

Meat Curry-At least 50% meat.

Meat Loaf (baked or oven-ready)-At least 65% meat and no more than 12% cereal products.

Meat Pasty-At least 25% meat.

Meat Pie or Vegetable Meat Pie-At least 25% meat.

Meat Ravioli-At least 10% meat in ravioli.

Meat Ravioli in Sauce-At least 10% meat in ravioli; at least 50% ravioli in total product.

Meat Salad-At least 35% meat (cooked basis).

Meat Sauce-At least 6% meat.

Meat Soup

Ready-to-Eat-At least 5% meat.

Condensed-At least 10% meat.

Meat Spread-At least 50% meat.

Meat Stew-At least 25% meat.

Meat Taco-At least 15% meat.

Meat Taco Filling-At least 40% meat.

Meat Turnover-At least 25% meat.

Meat Wellington-At least 50% cooked tenderloin spread with liver pate or similar coating and covered with not more than 30% pastry.

Meatballs-No more than 12% extenders, including textured vegetable protein. At least 65% meat.

Meatballs in Sauce-At least 50% meatballs (cooked basis).

Meatball Stroganoff-At least 45% meatballs (cooked basis).

Mince Meat-At least 12% meat.

Mousaka-At least 25% meat. Must be qualified on label as "Eggplant and Meat Casserole."

New England Boiled Dinner-At least 25% cooked corned beef.

Omelet with Bacon-At least 9% bacon (cooked basis).

Omelet with Dry Sausage-At least 12% dry sausage.

Omelet with Ham-At least 18% ham (cooked basis).

Omelet with Meat Food Product, such as Creamed Chipped Beef or Corned Beef Hash-At least 25% meat food product.

Omelet, Western-At least 18% cooked ham. Contains onions and green and/or red bell peppers.

Pate de Foie-At least 30% liver.

Pepper Steak (Chinese)-At least 30% thin, braised strips of beef (cooked basis).

Peppers and Italian Sausage in Sauce-At least 20% sausage (cooked basis).

Pizza with Meat-At least 15% meat.

Pizza with Sausage-At least 12% sausage (cooked basis) or 10% dry sausage, such as pepperoni.

Pork Sausage-Nor more than 50% fat or 3% water; may contain no byproducts or extenders.

Pork with Barbecue Sauce-At least 50% pork (cooked basis).

Pork with Dressing-At least 50% pork (cooked basis).

Pork with Dressing and Gravy-At least 30% pork (cooked basis).

Prosciutto-A flat, dry-cured ham coated with spices.

Quiche Lorraine-At least 8% bacon or ham (cooked basis) and 10% swiss or gruyere cheese.

Rice with Meat-At least 12% meat.

Salisbury Steak-At least 65% meat and no more than 12% extenders, including textured vegetable protein.

Sandwich Meat-At least 35% meat in total sandwich; bread component may not exceed 50% of the sandwich.

Sauerbraten-At least 50% beef (cooked basis).

Sauerkraut Balls with Meat-At least 30% meat.

Sauerkraut with Wieners and Juice-At least 20% wieners.

Sausage with Sauerkraut in Sauce-At least 40% sausage (cooked basis).

Scalloped Potatoes and Ham or Sausage-At least 20% ham or sausage (cooked basis).

Scallopini ("Veal Scallopini," for example)-At least 35% meat (cooked basis).

Scrambled Eggs with Ham in a Pancake-At least 9% ham (cooked basis).

Scrapple-At least 40% meat and/or meat byproducts.

Shepherd's Pie-At least 25% meat; no more than 50% mashed potatoes.

Sloppy Joe-At least 35% meat (cooked basis). Must be qualified with true product name, "Barbecue Sauce with Beef."

Snack-At least 15% meat (cooked basis) or 10% bacon (cooked basis).

Spaghetti Sauce with Meat-At least 6% meat.

Spaghetti with Meat or Meatballs in Sauce-At least 12% meat.

Spanish Rice with Meat-At least 20% meat (cooked basis).

Stuffed Cabbage with Meat in Sauce-At least 12% meat.

Stuffed Pepper with Meat in Sauce-At least 12% meat.

Sukiyaki-At least 30% meat.

Sweet and Sour Meat-At least 25% meat and at least 16% fruit.

Swiss Steak with Gravy-At least 50% meat (cooked basis).

Tamale-At least 25% meat.

Tamale with Sauce or Gravy-At least 20% meat.

Tamale Pie-At least 20% meat; filling must be at least 40% of total product.

Taquito-At least 15% meat.

Tongue Spread-At least 50% tongue.

Tortellini with Meat-At least 10% meat.

Tortellini with Meat in Sauce-At least 50% cooked meat tortellini.

Veal and Peppers in Sauce-At least 30% meat (cooked basis).

Veal Bird-At least 60% meat and no more than 40% stuffing.

Veal Cordon Bleu-At least 60% veal, 5% ham, and containing swiss, gruyere, mozzarella, or pasteurized process swiss cheese.

Veal Fricassee-At least 40% meat.

Veal Parmigiana-At least 40% breaded veal in sauce.

Veal Scallopini-At least 35% veal (cooked Basis).

Veal Steak-Chopped, shaped, cubed, frozen. Beef can be added up to 20% with product name shown as, "Veal Steaks, Beef Added, Chopped, Shaped, and Cubed," If more than 20% beef, must be labeled, "Veal and Beef Steak, Chopped, Shaped, and Cubed," No more than 30% fat in total product.

Vegetable and Meat Casserole-At least 25% meat.

Vegetable and Meat Pie-At least 25% meat.

Won Ton Soup-At least 5% meat.

Poultry Products

All percentages of poultry are on cooked, deboned basis unless otherwise indicated. When standard indicates poultry meat, skin, and fat, the skin and fat are in proportions normal to poultry.

Baby Food

High Poultry Dinner-At least 18 3/4% poultry meat, skin, fat, and giblets.

Poultry with Broth-At least 43% poultry meat, skin, fat, and giblets.

Beans and Rice with Poultry-At least 6% poultry meat.

Breaded Poultry-No more than 30% breading.

Canned Boned Poultry

Boned (kind) Solid Pack-At least 95% poultry meat, skin, and fat.

Boned (kind)-At least 90% poultry meat, skin, and fat.

Boned (kind), with Broth-At least 80% poultry meat, skin, and fat.

Boned (kind), with Specified Percentage of Broth-At least 50% poultry meat, skin, and fat.

Cannelloni-At least 7% poultry meat.

Chicken Cordon Bleu-At least 60% boneless chicken breast (raw basis), 5% ham, and either swiss, gruyere, or mozzarella cheese. (If breaded, no more than 30% breading.)

Creamed Poultry-At least 20% poultry meat. Product must contain some cream.

Egg Roll with Poultry-At least 2% poultry meat.

Eggplant Parmigiana with Poultry-At least 8% poultry meat.

Entree: Poultry or Poultry Food Products and One Vegetable-At least 37 ½% poultry meat or poultry food product.

Gravy with Poultry-At least 15% poultry meat.

Noodles or Dumplings with Poultry-At least 6% poultry meat.

Poultry a la Kiev-Must be breast meat (may have attached skin) stuffed with butter and chives.

Poultry a la King-At least 20% poultry meat.

Poultry Almandine-At least 50% poultry meat. Product must contain almonds.

Poultry Brunswick Stew-At least 12% poultry meat. Must contain corn.

Poultry Burgers-100% poultry, with skin and fat not in excess of natural proportions.

Poultry Burgundy-At least 50% poultry meat; enough wine to characterize the product.

Poultry Burrito-At least 10% poultry meat.

Poultry Cacciatore-At least 20% poultry meat, or 40% with bone.

Poultry Casserole-At least 18% poultry meat.

Poultry Chili-At least 28% poultry meat.

Poultry Chili with Beans-At least 17% poultry meat.

Poultry Chili with Beans-At least 17% poultry meat.

Poultry Chop Suey-At least 4% poultry meat.

Poultry Chow Mein (without noodles)-At least 4% poultry meat.

Poultry Creole with Rice-At least 35% cooked meat in poultry and sauce portion. Not more than 50% rice in total product.

Poultry Croquette-At least 25% poultry meat.

Poultry Croquette with Macaroni and Cheese-At least 29% croquettes.

Poultry Dinner (a frozen product)-At least 18% poultry meat, figured on total meal menu minus appetizer, bread, and dessert.

Poultry Empanadillo (a poultry turnover)-At least 25% poultry meat.

Poultry Fricassee-At least 20% poultry meat.

Poultry Fricassee of Wings-At least 40% poultry wings (cooked basis, with bone).

Poultry Hash-At least 30% poultry meat.

Poultry Lasagna-At least 8% poultry meat (raw basis).

Poultry Livers with Rice and Gravy-At least 30% livers in poultry and gravy portion, or 17½ in total product.

Poultry Meat Loaf-A minimum of 65% raw poultry or 50% poultry meat, and a maximum of 12% extenders.

Poultry Paella-At least 35% poultry meat or 35% poultry meat and other meat (cooked basis); no more than 35% cooked rice. Must contain seafood.

Poultry Parmigiana-At least 40% breaded poultry.

Poultry Pie-At least 14% poultry meat.

Poultry Ravioli-At least 2% poultry meat.

Poultry Roll-No more than 3% binding agents, such as gelatin, in the cooked product; no more than 2% natural cooked-out juices.

Poultry Roll with Broth-Contains more than 2% poultry broth in addition to natural cooked-out juices.

Poultry Roll with Gelatin-Gelatin exceeds 3% of cooked product.

Poultry Roll with Natural Juices-Contains more than 2% natural cooked-out juices.

Poultry Salad-At least 25% poultry meat (with normal amounts of skin and fat).

Poultry Scallopini-At least 35% poultry meat.

Poultry Soup

Ready-to-Eat-At least 2% poultry meat.

Condensed-At least 4% poultry meat.

Poultry Stew-At least 12% poultry meat.

Poultry Stroganoff-At least 30% poultry meat and at least 10% sour cream or a "gourmet" combination of at least 7 ½% sour cream and 5% wine.

Poultry Tamale-At least 6% poultry meat.

Poultry Tetrizzini-At least 15% poultry meat.

Poultry Turnover-At least 14% poultry meat.

Poultry Wellington-At least 50% boneless poultry breast spread with a liver or similar pate coating and covered in not more than 30% pastry.

Poultry with Gravy-At least 35% poultry meat.

Poultry with Gravy and Dressing-At least 25% poultry meat.

Poultry with Noodles au Gratin-At least 18% poultry meat.

Poultry with Noodles or Dumplings-At least 15% poultry meat, or 30% with bone.

Poultry with Rice-At least 15% poultry meat.

Poultry with Vegetables-At least 15% poultry meat.

Sauce with Poultry or Poultry Sauce-At least 6% poultry meat.

Stuffed Cabbage with Poultry-At least 8% poultry meat.

Stuffed Peppers with Poultry-At least 8% poultry meat.

Turkey Ham-A product made with cured turkey thigh meat only.

Definitions

Some terms used throughout this document are defined below:

Binders, Extenders-Binders and extenders help to hold a meat or poultry product together, and also aid in retaining product moisture. Sometimes, these ingredients are used to supplement the required minimum amount of meat or poultry present in a product.

Cure-Curing ingredients are used to preserve such products as ham, frankfurters, and bacon. They also give these products their characteristic taste and color. Today, almost all curing of meats is done by adding limited amounts of nitrite in combination with salt during processing. If nitrite-cured products are stored at the proper temperature, the presence of nitrite prevents the growth of organisms that cause botulism in humans.

Meat-Meat comes from the muscles of cattle, sheep, swine, and goats. "Skeletal" meat refers to the muscular cuts which were attached to the animal's bone structure. Muscle found in the tongue and heart is also defined as "meat," but is permitted only in some meat products. Regulations require that all meats be identified by species (type) of animal, and, if meat from the tongue or heart is used, it must be named in the list of ingredients.

Meat Byproducts (sometimes known as "variety meats")-These terms refer to the edible and wholesome parts of cattle, sheep, swine, and goats, other than skeletal meat. Whenever byproducts are added to meat products, each specific byproduct must be named in the list of ingredients.

Meat Food Product (also known as "meat product")-Any food suitable for human consumption made from cattle, sheep, swine, or goats, containing more than 3 percent meat.

Poultry-All domesticated birds (chickens, turkeys, ducks, geese, guineas).

Poultry Byproducts-All edible parts of poultry other than sex glands and "poultry meat."

Poultry Food Product (also known as "poultry product")-Any food suitable for human consumption made from any domesticated bird, containing more than 2 percent poultry meat.

Poultry Meat-This term refers to the white and dark meat portions of deboned poultry, excluding fat, skin, and other edible poultry parts.

Vegetable (Plant) Protein-Vegetable protein products derived from soybeans may be used as binders or extenders in such meat and poultry products as sausages, luncheon meats, soups, sauces, and gravies. Sometimes, they are the main ingredients in meat and poultry product substitutes. Soybeans are processed into three basic soy protein products: soy flour, soy protein concentrate, and isolated soy vegetable protein. Whenever soy protein is added to a meat or poultry product, its presence is noted in the ingredient statement on the label. In some instances, it is also included in the product name, e.g., "Beef and Textured Vegetable Protein Burritos."

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.

a. The size of a cup will vary widely, ranging from a small "demitasse" cut to a large coffee mug.

b. 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."

2. 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.

3. 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, 2 to 3 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)

Guideline

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

The methods of retail sale for fresh fruits and vegetables should be:

Commodity	Method of Sale
Apples	Weight or count, or by dry measure in units not less than 1 peck
Apricots	Weight
Artichokes	Weight or count
Asparagus	Weight or bunch
Avocados	Count
Bananas	Weight

Beans	Weight or dry measure, in units not less than 1 peck	Persimmons	Weight or count
Beets	Weight or bunch	Plums	Weight or dry measure, in units not less than 1 peck
Berries (all) ¹	Weight or measure	Pineapples	Weight or count
Broccoli	Weight or bunch	Pomegranates	Weight or count
Brussels sprouts	Weight	Potatoes (Irish or sweet)	Weight
Cabbage	Weight	Prunes	Weight
Cantaloupes	Weight or count	Pumpkins	Weight or count
Carrots	Weight or bunch	Radishes	Weight
Cauliflower	Weight or bunch	Rhubarb	Weight
Celery	Weight or count	Rutabagas	Weight
Cherries ¹	Weight or measure	Spinach	Weight or bunch
Coconuts	Weight or count	Tangerines	Weight or count
Corn on cob	Count	Tomatoes	Weight or dry measure, in units not less than 1 peck
Cranberries	Weight or measure	Tomatoes (cherry) ¹	Weight or measure
Cucumbers	Weight or count	Turnips	Weight or bunch
Currants ¹	Weight or measure		
Dates	Weight		
Eggplant	Weight or count		
Escarole	Weight or bunch		
Figs	Weight		
Garlic	Weight or count		
Grapefruits	Weight or count		
Grapes	Weight		
Greens (all)	Weight		
Kale	Weight		
Kohlrabi	Weight		
Leeks	Weight		
Lemons	Weight or count		
Lettuce	Weight or count		
Limes	Weight or count		
Mangoes	Weight or count		
Melons (whole)	Weight or count		
Melons (cut or pieces)	Weight		
Mushrooms	Weight or measure		
Nectarines	Weight or count		
Okra	Weight		
Onions (spring or green)	Weight or bunch		
Onions (dry)	Weight		
Oranges	Weight or count		
Papaya	Weight or count		
Parsley	Weight or bunch		
Parsnips	Weight		
Peaches	Weight or count, or by dry measure in units not less than 1 peck		
Pears	Weight or count, or by dry measure in units not less than 1 peck		
Peas	Weight		
Peppers	Weight or count		

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 x 4 identification number refers to a box whose actual size is 27 x 3 inches. 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

¹Commodities sold by measure must be sold in containers standardized by the Berry Basket and Box Code in Handbook 44.

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.

2.3.9. Fireplace Logs (L&R, 1975, p. 174)

Interpretation

Time of burning is not an appropriate quantity declaration for fireplace logs. (Section 2.4.3. of the Uniform Method of Sale of Commodities requires single logs to be sold by weight, or if packaged and less than 4 cu ft, weight plus count.)

Background

The enforceability of quantity declarations using time as the basis of measurement for commodities, including packaged commodities, must be considered carefully if equity in the marketplace is to be achieved. The Committee wishes to stress to those who have submitted time declaration questions that the enforceability factor should not override consumer protection and uniformity considerations. Based on the above criteria, the Committee recommends that the Conference take the position that time is not an appropriate quantity declaration for fireplace logs.

2.3.10. Wiping Cloths (L&R, 1972, p. 146)

Interpretation

Wiping cloths shall be sold by net weight, not by gross weight.

Background

The National Association of Wiping Cloth Manufacturers requested the Committee to approve and recommend the sale of wiping cloths on a gross weight basis or, in the alternative, to propose an exemption from net weight requirements for such items sold in bales or cartons. In its communication, the Association noted that the wiping cloth industry is an important segment of the nation's recycling effort. The Association also contended that application of net weight requirements to packaged wiping cloths will work an undue hardship on the industry.

We are sympathetic to the aims and purposes of the Federal Resource Recovery Act and recognize the important contribution made by the wiping cloth industry in this regard. It is also recognized that it has been industry practice to sell packaged wiping cloths with a gross weight designation while also specifying a percentage tare weight allowance. In essence, this practice is not sale by gross weight but is more nearly a sale on a net weight basis.

Accordingly, it is not felt that either a recommendation to permit sale by gross weight or an amendment excluding packaged wiping cloths from net weight labeling requirements is warranted. Historically, all packaged commodities have been required to be sold on a net weight basis, and net weight requirements are a basic feature of weights and measures laws. Because of this longstanding and periodically reaffirmed net weight requirement, and because the industry practice also recognizes net weight, it is the recommendation of the Committee that net weight requirements be applied to packaged wiping cloths in the

same fashion as they are applied to all other packaged products.

2.3.11. Packaged Foods or Cosmetics Sold from Vending Machines (L&R, 1982, p. 152)

Interpretation

Packaged foods and cosmetics sold from vending machines must be labeled the same as similar items not sold in vending machines, including identity, responsibility, net contents, and ingredient declaration, except that Section 3.3. of the Uniform Regulation for the Method of Sale of Commodities permits identity and net contents to be posted on the machine in lieu of appearing on the package.

Background

As part of its review of the Uniform Regulation for the Method of Sale of Commodities, FDA recommended adding a statement to Section 3.3. that packaged foods and cosmetics sold in vending machines must in general be labeled in accordance with requirements for similar articles not sold in vending machines (e.g., ingredient declaration requirements). The Committee recommends that this information be made a guideline rather than incorporated as part of the uniform regulation.

2.3.12. Movie Films, Tapes, Cassettes (L&R, 1975, p. 174)

Guideline

Movie film may be sold by linear measure. Magnetic tapes and cassettes may be sold by either linear measure or playing time.

Background

The enforceability of quantity declarations using time as the basis of measurement for commodities, including packaged commodities, must be considered carefully if equity in the marketplace is to be achieved. The Committee wishes to stress to those who have submitted time declaration questions that the enforceability factor should not override consumer protection and uniformity considerations. The committee further recommends that the States follow FTC guidelines in requiring lineal measure for the sale of movie films and permit either linear measure or playing time for magnetic tapes and cassettes.

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 gallons" look identical in dimensions to those labeled "35 pounds," but the density of the vegetable oil is such that the 35-pound cans contain only about 4½ gallons. 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.

2.3.14. Potpourri (L&R, 1983, p. 209)

Guideline and Interpretation

Potpourri may be sold either by weight or by dry measure either when sold from bulk or when prepackaged and not in decorative containers. When prepackaged potpourri is put up in decorative containers, it is an "air freshener unit" and no net contents statement is required.

Background

Minnetonka, Inc. (Minnetonka, MN) manufactures a line of fragrant dried herbs and flowers ("Pot Pourri") used for their decorative nature and fragrance, and sold from bulk and in prepackaged form. The Federal Trade Commission (FTC) has communicated with Minnetonka and is of the opinion that the prepackaged potpourri put up in decorative containers can be considered as an air freshener unit and, therefore, no net contents statement would be required (because FTC has ruled similarly for incense and other air fresheners).

The Southern Weights and Measures Association has requested the NCWM to resolve the conflict between Section 19 of the Uniform Weights and Measures Law

(requiring a quantity of contents statement in terms of weight, measure, or count) and the FTC opinion.

The Liaison Committee and Committee on Laws and Regulations met jointly to consider this issue. Neither Committee saw conflict between the FTC opinion and the Model Law. Section 17 of the Uniform Law states in part, "... commodities not in liquid form shall be sold only by weight, or by measure, or by count, so long as the method of sale provides accurate quantity information." The quantity of air freshener or incense in decorative containers does not directly translate into easily measurable units such as weight or volume, so count (e.g., "one") appears to be a minimally acceptable declaration of net contents. This is the interpretation of the FTC.

Sale of potpourri from bulk has been made by weight or by dry measure. Questions of how to sell the product from bulk arose because the company was informed by weights and measures officials that they were supplying scales that would not meet the requirements of Handbook 44. The company sells their product in boutiques and department stores, most of which are not equipped with suitable scales. Therefore, Minnetonka had to supply a measuring device with its bulk potpourri. Since the fragrance and visual appearance of the product are the main reasons for consumer purchases, the dry volume of product seemed to be an alternative and adequate method of sale (since the volume is related to the surface areas exposed, which in turn is related to the amount of fragrance given off). Minnetonka had volumetric measures fabricated and sent to the National Bureau of Standards for type approval. The dry volume measures hold 1/8 and 1/4 dry pint and have been issued reports of test. These dry volume measures were fabricated for Minnetonka and are not available to the commercial trade, so far as the Committee is aware.

The Committee would like to alert field officials to the likelihood of these and other commodities being sold by weight or measure from bulk in department stores and other retail outlets not usually recognized as locations where commercial measuring equipment would be present.

The remaining problem is, of course, the fact that the prepackaged material in decorative containers may contain no declaration of weight or volume (per FTC information), whereas the material sold from bulk will be measured by dry volume. This will be a problem for consumers who wish to make a value comparison between the prepackaged product and that sold from bulk. Minnetonka, Inc., is studying the feasibility of putting a declaration of net contents on their prepackaged product in terms of dry volume.

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 copy of a letter to the Chairman of the Conference and his response appear as Appendix A to this report. The Committee applauds the Chairman's response to the request and affirms the need for strong enforcement action in this area, rather than any changes to existing laws or regulations.

A workshop was held on June 20, 1986, at the U.S. Department of Commerce, Washington, DC, 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 out of this meeting; however, the participants express an interest in meeting again after a written report of the June 20 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 percent of the gross weight in prepackaged items sold from bulk; the majority of cases seems to range from 3 to 12 percent. 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.

2.3.16. Animal Bedding (L&R, 1988, p. 159)

Recommended Method of Sale

Animal bedding of all kinds, except for baled straw, should be sold by volume, that is, by the cubic meter, cubic yard, cubic foot or cubic inch.

The test method in Handbook 133, Section 4.11. PEAT MOSS, can be used for animal bedding. The test official should "fluff up" or in some way reduce the amount of compaction of product that may occur under ordinary packaging and distribution processes prior to testing.

2.3.17. Ready-to-Eat Food - Guideline on Selling Whole Chicken by Count (L&R, 1991)

Guideline

Supermarkets have complained that being required to sell items such as fully-cooked ready-to-eat chickens or ribs or other "carry-out" items by the pound puts them at a competitive disadvantage to other "fast-food" outlets that can post a final price on a menu board so that the potential customer knows ahead of selection what the final price of the item will be.

It is not necessary, however, to sell these items from bulk and have to individually weigh and mark every chicken or slab of ribs. An alternative method of sale is to weigh the finished, cooked item, say the whole chickens, determine the minimum net weight, and to sell them as if they were "standard" packages, that is, of a fixed (the minimum) weight. For example, retailers could post a sign "Whole Barbecued Chickens, net weight 2 1/2 lb - \$3.85 each."

This would meet the requirement that meat, poultry, fish, and seafood be sold by weight and would permit such stores to compete with fast food outlets while still providing net quantity information to the purchaser.

Background

The Massachusetts Food Association and Connecticut Food Stores Association requested that Section 1.12. Ready-to-Eat Food of the Uniform Regulation for the Method of Sale of Commodities be modified so that whole ready-to-eat chickens held in a hot holding unit with or without thermal protection packaging and not intended for self service be permitted to be sold by weight, measure, or count. They argued that customer convenience demanded that the customer know the cost to feed the family prior to the sale. Permitting the sale of whole chicken only by a specified cost per pound may act as a psychological obstacle to purchasing at the retail food store, which competes with the fast food restaurant with respect to this product. The Northeastern Weights and Measures Association did not support the food associations' request. They recommended that whole chicken be labeled as if it were a standard package, for example, "net weight 2 1/2 lb - \$3.85 each" as signage adjacent to the product. The majority of the Committee endorses this approach.

2.5.1. Net Weight at Retail
(P&C, 1977, p. 160)

Policy

It is the policy of the National Conference on Weights and Measures that measurement equity in the United States demands the continuation of an applied system of weights and measures regulation that assures accurate net weight at the time of retail sale.

2.5.2. Bakery Products: Variations from Declared Net Weights
(L&R, 1983, p. 153)

Guideline or Interpretation

Special individual package variations are not required for bakery products. The MAV's in H-133 are sufficient for packaged bakery products as presently labeled.

Background

The American Bakers Association (ABA) proposed the need for special individual package variations for bakery products. They argue that neither the permitted variations in Handbook 67 ("Unreasonable Minus or Plus Errors") or in Handbook 133 ("Maximum Allowable Variations") are large enough for the special quality control problems prevalent in their industry. The Committee requested specific data from the ABA that would support their proposal and agreed to work with the Office of Weights and Measures and the ABA in order to determine if special limits of reasonable variation should be set for bakery products.

The ABA supplied data from 185 lots, from 5 companies, of several types of produce (biscuits, buns, bread, donuts, cakes, pies, etc.) with net weight declarations from 2¼ to 30 oz. The data for each product produced by each plant consisted of about 50 individual package net weights taken at intervals of 10 min to 1.2 h spaced throughout a production run (one day's run). Other data were supplied on a few products for which 10 packages coming consecutively off the production line were collected at hourly intervals and weighed.

Both sets of data indicated very great variability in net weight for any given product.

Having reviewed the data submitted to the Committee by their member companies, the ABA requested a tentative figure of twice the maximum allowable variations as described in Handbook 133.

Two Weights and Measures jurisdictions provided copies of recent package test reports on bakery products. One

jurisdiction tested these products using Handbook 67 (H-67) and the other using Handbook 133 (H-133).

In the jurisdiction using H-67, 148 samples were taken (mostly at retail) with only 7 lots rejected on the basis of the sample data (4.7%); the lots that were rejected failed the average requirements as well as the allowed number of individual packages with "unreasonable minus errors." However, 4 more lots would have failed if H-67 had been followed to the letter; 4 more lots had at least 2 packages in a sample of 10 that exceeded the table values of unreasonable minus errors in H-67. Since the particular jurisdiction that provided these data used larger values for unreasonable minus or plus errors than H-67, only one lot in addition to the 7 that were rejected should have been rejected on the basis of the sample data (5.4% rejected). The variability in each sample was large; however, because the bakers had overpacked to the extent necessary to account for such variability, 94.6% of the lots complied with the requirement.

In the jurisdiction using H-133, 15 samples from different types of baked goods were analyzed; 4 were rejected based on the fact that the average error was minus and only one was rejected on both the average being minus and on individual packages exceeding the MAV. Again, some of the data showed wide variability in individual package weights from the same lot; however, the bakeries had accommodated the variability by setting their targets higher than the label.

Although baked goods do show large variability, the data provided to the Committee plus the personal experience of the Committee members indicate that there are no serious compliance problems with such packaged goods. Although permitting larger individual package variations would permit some bakeries to decrease their target weights, the Committee wishes to see the status quo maintained. Members of the Committee are convinced that packagers producing baked goods are able to meet the existing standards and that those standards are adequate and not in need of changing. Based on this information, the Committee recommends no addition to either the Model State Packaging and Labeling Regulation or to H-67 or H-133 for bakery products.

2.5.3. Commodity Requirements, Flour
(Exec, 1987, p. 64)

The NCWM recommends the use of 3 percent gray area for weights and measures officials to use in checking packages of flour.

This procedure is described in Section 3.17. of Handbook 133, Third Edition.

2.5.4. Wet Tare Tests on Packages from Federally Inspected Plants
(Exec, 1988, p. 51)

Policy

The following gray areas should be applied in wet tare tests used to determine net weights:

- 2-1/2% of the labeled weight for hot dogs or franks (whether meat or poultry)
- 3% of the labeled weight for fresh poultry

See Section 3.17. of Handbook 133, Third Edition, for test methods.

2.5.5. Model Agreement Between a State or Local Government and Food Safety and Inspection Service, U.S. Department of Agriculture, for the Determination of Net Contents of Federally Inspected Meat and Poultry Products
(Exec, 1988, pp. 86-92)

Preamble to the Memorandum of Understanding

This agreement is between the U.S. Department of Agriculture and the state or local government that has signed the document. Nothing in this document is intended to interfere with the rights of privacy that private businesses now enjoy. This agreement is intended to provide an orderly process for obtaining information by state and local officials from Federal meat and poultry establishments when there is a reasonable need for the information.

MEMORANDUM OF UNDERSTANDING

Between the

FOOD SAFETY AND INSPECTION SERVICE

And the

STATE OF _____

Or

LOCAL GOVERNMENT OF _____

The Food Safety and Inspection Service and the State or Local Government of ____ hereby jointly agree to the

following terms and conditions with respect to the enforcement of certain provisions of the Federal Meat Inspection Act and the Poultry Products Inspection Act and State and local laws regulating net content labeling of meat and poultry products.

I. PURPOSE

To permit full implementation of concurrent jurisdiction, as provided by law, by the Food Safety and Inspection Service (FSIS) and State and local weights and measures agencies engaged in regulatory functions concerning the declared net content of Federally inspected meat and poultry products. To maximize the exchange of net content information between FSIS and State and local agencies for the determination of label accuracy on Federally inspected meat and poultry products. To encourage the use of quality control programs by establishments operating under Federal inspection, and to encourage the use of quality control documentation by state and local agencies in their regulatory programs.

II. STATUTES RELATING TO THE AGREEMENT

Nothing in this agreement shall lessen the responsibilities of the Food and Safety and Inspection Service under the Federal Meat Inspection Act or the Poultry Products Inspection Act, nor of the state and local agencies operating under their respective statutes.

A. The Food Safety and Inspection Service of the U.S. Department of Agriculture is primarily responsible for enforcing the Federal Meat Inspection Act and the Poultry Products Inspection Act. In carrying out its responsibilities, the Food Safety and Inspection Service has inspectors who inspect meat and/or poultry processing plants to ensure that products are not adulterated or misbranded. The type and intensity of inspection is determined by criteria defined by the Secretary. The sections of the Code of Federal Regulations that concern net content compliance are 9 CFR 317.2(h)(2) for meat and 9 CFR 381.121(c)(6) for poultry. FSIS net content inspection is accomplished by the FSIS inspector in the establishment through observing the establishment's process control and by verifying the product's net contents by selecting and measuring samples from lots of labeled product. Federally approved quality control programs are establishment-operated control procedures for tare determination, sample selection, sample measuring, recordkeeping, and taking action against noncomplying product. The FSIS inspector monitors the application of the quality control program, evaluates records, and conducts verification sampling and measuring to determine continued Federal acceptance of the establishment's quality control program and the

accuracy of its net content labeling on the establishment's product.

B. For the purpose of preventing the distribution of adulterated or misbranded articles, state and local agencies have concurrent jurisdiction to enforce the provisions of the Federal Meat Inspection Act and the Poultry Products Inspection Act regarding net content labeling of Federally-inspected meat and poultry products within their geographic area, when those products are located outside of Federally inspected establishments. In the event that representatives of state or local agencies wish to inspect products in an official Federally-inspected establishment, they may do so with permission of an appropriate FSIS official for that establishment. FSIS permission is not required for state and local agency examination of establishment scales and weighing systems. Also, state and local agencies may impose on such establishments, recordkeeping, and other requirements within the scope of section 202 of the Federal Meat Inspection Act and section 11(b) of the Poultry Products Inspection Act. (See 21 U.S.C. 467 et. seq. and 678). The state and local agencies conduct unannounced evaluations at sites other than at Federally inspected establishments, of declared net contents on all products including Federally inspected meat and poultry products. The actions available to the state and local agencies vary depending upon their respective laws. However, typically, state and local agencies may take one or more of the following actions whenever noncompliant products are found: (1) Require noncompliant products to be removed from the market; (2) Relabel to the correct content; (3) Prepare documentation of findings and give it to the owner and/or producer of the product; (4) Contact FSIS if it is Federally inspected product; and (5) Pursue regulatory action through the administrative or judicial system. (Cite here any additional state and/or local law(s) or regulations deemed appropriate for this MOU.)

III. SUBSTANCE OF AGREEMENT:

A. The Food Safety and Inspection Service will:

1. Instruct all its processing-food inspectors in the procedures that will be used when cooperating with the state or local officials who are reviewing the records or control procedures, and in assisting state or local officials in identifying the establishment personnel responsible for reviewing establishment-maintained records within the framework of this Memorandum of Understanding.

2. Inform the state and local officials who are reviewing the records of the procedures if the establishment is

operating under a Federally-approved Total or Partial Quality Control Program.

3. Assist state and local officials by making its records of the evaluation of tare weights and net contents of meat and poultry products at any Federally inspected establishment available to state and local officials for those lots that they identify as well as any scale records. With respect to any establishment operating under a Federally approved Quality Control Program, such records will include: the date of the evaluation, the product evaluated, the code markings if any, the label used, the individual product contents in the sample, the range of measurements, the sample average, scale records, and the inspector's signature.

4. Be responsible for monitoring the accuracy and suitability of scales in Federally-inspected establishments used to establish the net content of Federally-inspected meat and poultry products. FSIS will require the scales to be maintained in accordance with the requirements set forth in the latest edition of the National Institute of Standards and Technology Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices" approved by FSIS. This handbook is for sale by the Superintendent of Documents, U.S. Printing Office, Washington, DC 20408.

5. Maintain its role as exclusive authority for net content of packages at Federally inspected establishments while cooperating with the state and local authorities.

6. Review the records and its decisions in the event of a disagreement by state and local officials over net contents of Federally inspected meat and poultry products. The FSIS personnel to settle such disagreements will be the Regional Director of the region in which the Federally inspected establishment is located. The appropriate FSIS official for the establishment will be responsible for arranging an appeal to the Regional Director. The Regional Director or his designee will identify the appropriate FSIS or USDA official for the establishment. In the event agreement is not reached in the regional meeting, the disagreement can be appealed to the Administrator, FSIS.

7. Grant permission to the state or local weights and measures authorities to enter the Federal establishment for any purpose other than the inspection and certification of weighing devices. When the request for entry is to examine a suspect lot, FSIS may decide to conduct its own evaluation on the lot or process in question and, in that case, will issue a report in 10 days. In the event

that perishable product is on hold, a response will be provided in two days.

8. Define specific sampling procedures for determining the compliance of a lot of meat or poultry products in the Federally inspected establishments. These are defined as Category B Sampling Procedures in the latest edition of the National Institute of Standards and Technology Handbook 133, "Checking the Net Contents of Packaged Goods," approved by FSIS.

9. Define specific sampling procedures for determining the compliance of a lot of meat or poultry product at sites other than Federally inspected meat and poultry establishments. These are defined as Category A Sampling Procedures in the latest edition of the National Institute of Standards and Technology Handbook 133 approved by FSIS.

10. Agree to support the action of the state or local official if the actions are in agreement with the procedures in this Memorandum of Understanding, including the procedures Handbook 133, Section 3.18.

B. States and local agencies will:

1. Instruct their officials to use only those statistical methods defined by FSIS for determining the compliance of a Federally inspected lot, but examined at the site other than the Federally inspected establishment. These are defined as Category A Sampling Procedures in the latest edition of National Institute of Standards and Technology Handbook 133, approved by FSIS. Wet tare or dry tare tests may be used outside the Federal establishment.

a. If wet tare tests are conducted on products that have an established gray area, the procedures in Handbook 133, Section 3.18.

b. If wet tare tests are conducted on products that do not have an established gray area, reasonable variations as permitted in the USDA regulations apply.

2. Instruct their officials to use only those statistical methods defined by FSIS for determining the compliance for Federally inspected product samples inside the Federally inspected establishment. These are defined as Category B sampling procedures in the latest edition of National Institute of Standards and Technology Handbook 133 approved by FSIS. Only dry tare tests are to be conducted in the Federally inspected establishment except for products that are packed in non nutritious media, in which case the net weight is the drained weight; e.g., vienna sausage.

3. Instruct their officials to take action on lots of products only if in agreement with the contents of this Memorandum of Understanding, including the procedure in Handbook 133, Section 3.18.

4. If they wish to test product at the Federal establishment, instruct their officials to contact the appropriate FSIS official for that establishment prior to entering the establishment. A current FSIS Directory of official establishments is maintained at the FSIS regional offices as well as the identities of the appropriate FSIS or USDA official for that establishment. (See list below)

FSIS Regional Offices	State or Territories
Western Regional Office 620 Central Avenue, Bldg. 2C Alameda, CA 94501 (415) 273-7402	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming, North Dakota, South Dakota, Samoa, And Guam
Southwestern Regional Office 1100 Commerce Street Dallas, TX 75242 (214) 767-9116	Arkansas, Kansas, Louisiana, Missouri, New Mexico, Texas and Oklahoma
North Central Regional Office 607 E. Second Street Des Moines, IA 50309 (515) 284-4042	Illinois, Indiana, Iowa, Michigan, Minnesota, Nebraska, Wisconsin, and Ohio
Southeastern Regional Office 1718 Peachtree Street, N.W. Atlanta, GA 30309 (404) 881-3911	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, West Virginia, Puerto Rico, and the Virgin Islands
Northeastern Regional Office 1421 Cherry Street, 7th Floor Philadelphia, PA 19102 (215) 597-4217	Connecticut, Maine, Maryland, Massachusetts, Delaware, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and the District of Columbia

5. Instruct their officials, in the event that they wish to visit the establishment for any purpose except for examining, testing, and or certifying scales, to provide to the appropriate FSIS official in writing, a statement of the purpose of the visit. If the purpose is to investigate suspect lots, then the State or local official needs to provide

the identification of lots of products that include the sampling, tare, and compliance procedures used for the lots that they believe to be suspect due to low net contents.

6. Optionally, instruct their officials to enter a Federally-inspected establishment at least once each calendar year in order to examine, test and certify scales and service records for accuracy and suitability. The technical requirements of the scales are defined by the latest edition of National Institute of Standards and Technology Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." This handbook is for sale by the Superintendent of Documents, U.S. Printing Office, Washington DC 20408.

7. Instruct their officials to determine what tare and net content records are needed from FSIS records for the suspect lots. These FSIS records may be copied, distributed, and removed from the establishment.

8. Instruct their officials to ask to review establishment-maintained net content records and to recognize that the information on the establishment operation and the species of the approved Total or Partial Quality Control Program are proprietary information and are not for copying, distribution, or removal from the site without permission of the producer's establishment manager. An establishment that is not operating under an approved net content Quality Control Program is not required to share its net content records with FSIS personnel. Such information may be reviewed, copied, distributed, and removed from the plant site only with the permission of the producer's establishment manager.

9. In those situations where the state or local official and appropriate FSIS official disagree on what action to take, agree to direct the disagreement in writing to the FSIS Regional director in whose region the establishment is located. In the event agreement is not reached in the regional meeting, the disagreement can be appealed to the Administrator, FSIS by the state or local official.

IV. NAME AND ADDRESS OF PARTICIPATING AGENCIES

Food Safety And Inspection Service
U.S. Department of Agriculture
14th and Independence Avenue, SW
Washington, DC 20250

State of _____
or
Local Government of _____

V. LIAISON OFFICERS:

Deputy Administrator
Meat and Poultry Inspection Technical Services
Food Safety and Inspection Service

Director _____
Weights and Measures
_____, _____

VI. PERIOD OF AGREEMENT:

This Agreement, when accepted by both parties, covers an indefinite period of time and may be modified by mutual consent of both parties or terminated by either party upon thirty (30) days written notice to the other party.

Approved and Accepted for the Food Safety and
Inspection Service _____

Approved and Accepted for the State of
_____ or Local Government of

**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 subcategorization of pet food needs to be defined by industry before 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 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 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 (as examples: USDA net weight tests for meat; or 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, and 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.

2.6.1. Retail Gas Sales and Metric Price Computations in General (S&T, 1980, p. 227)

Guideline

The National Bureau of Standards (now the National Institute of Standards and Technology) published equivalent rounded values for metric equivalents of inch-pound 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 4 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 1 000 gallon delivery were to be converted to liters the value would be 3 785 liters; for 10 000 gallons - 37 854 liters, for 100 gallons - 378.5 liters.

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) x 3.785 =
(equivalent unit price per gallon, rounded to the nearest 1/10 cent.)

Examples:

26.9 cents per liter x 3.785 = \$1.018 per gallon
26.8 cents per liter x 3.785 = \$1.014 per gallon
26.7 cents per liter x 3.785 = \$1.011 per gallon
26.5 cents per liter x 3.785 = \$1.003 per gallon
26.4 cents per liter x 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 3 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 motor 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.

e. 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

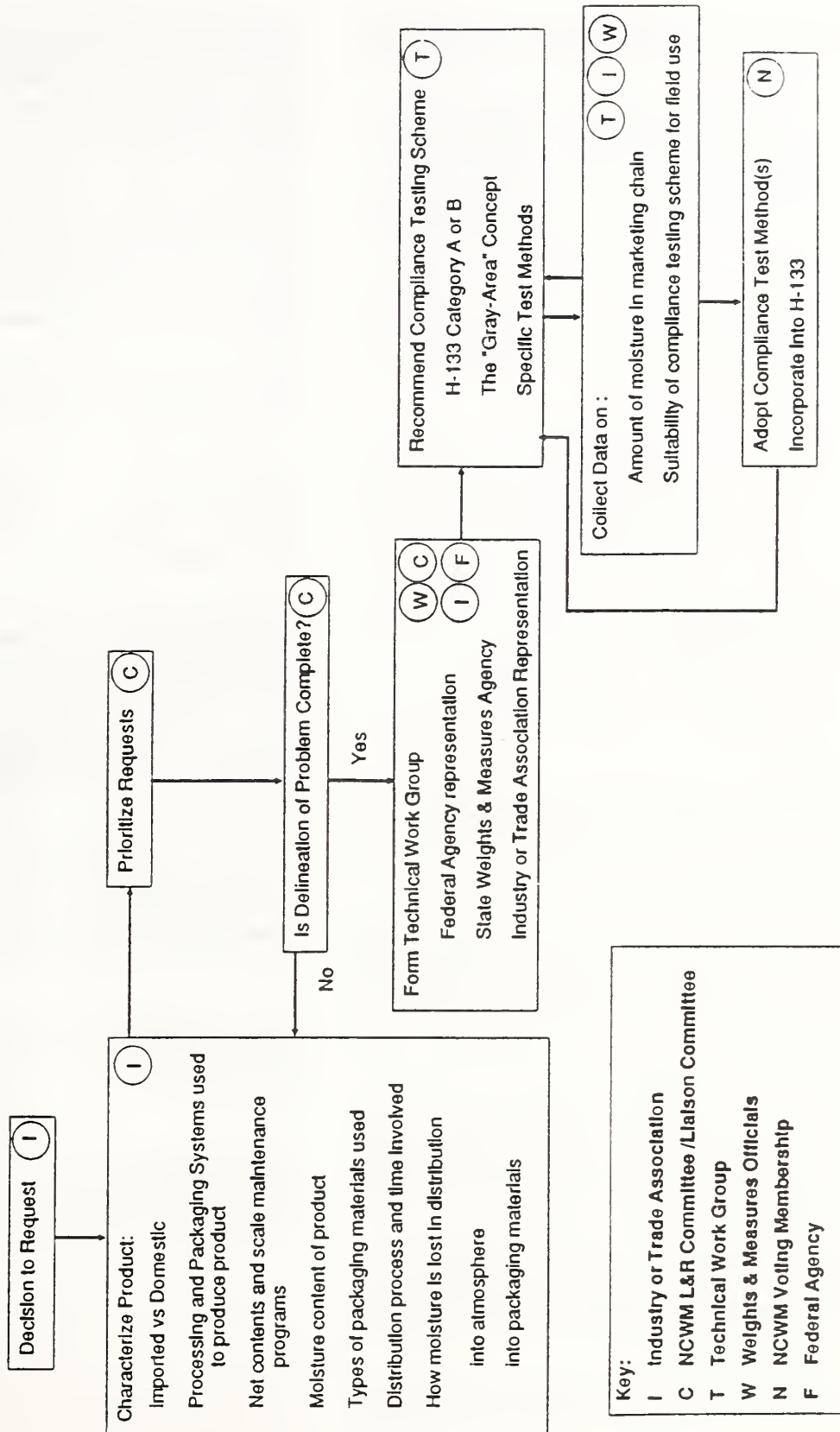
(3) to add the whole number "one" before the cents values.

f. The changeover to advertising prices by the liter as a single mode of pricing should be established when 75 percent 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 of the measurement methods of sale (gallon or liter). A change

PLAN FOR NCWM RESOLUTION OF INDIVIDUAL REQUESTS FOR RECOGNITION OF MOISTURE LOSS



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. For example:

27.1¢ per liter = \$1.026 per gallon

3.785 liters = 1 gallon

c. Letters and numerals should be at least 3/4 inch (19 mm) in height and 1/8 inch (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 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 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 Handbook 44.

2.6.3. Octane Posting Regulations

(Liaison, 1979, p. 240)

Guideline

Weights and Measures officials should report to 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:

FTC Regional Offices, Addresses, and Telephone Numbers:

Room 1184
10 Causeway Street
Boston, MA 02222-1073
(617) 565-7240

Suite 1300
150 William Street
New York, NY 10038
(212) 264-1207

Suite 520-A
668 Euclid Ave.
Cleveland, OH 44114
(216) 522-4207

Room 1000
1718 Peachtree St., N.W.
Atlanta, GA 30367
(404) 347-4836

Suite 1437
55 East Monroe St.
Chicago, IL 60603
(312) 353-4423

Suite 2900
1405 Curtis Street
Denver, CO 80202-2393
(303) 844-2271

Suite 500
100 N. Central Expressway
Dallas, TX 75201
(214) 767-5501

11000 Wilshire Blvd.
Suite 13209
Los Angeles, CA 90024
(213) 575-7890

Suite 570
901 Market St.
San Francisco, CA 94103
(415) 744-7920

2806 Federal Bldg.
915 Second Avenue
Seattle, WA 98174
(206) 553-4656

Central Office:
Neil Blickman
FTC Octane Rule Coord.
6th St. & Penn. Ave., N.W.
Washington, DC 20580
(202) 326-3038

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 Federal Trade Commission's Octane Rule, 16.C.F.R. Part 306. Although the octane posting rule has no effect on most programs administered by State weights and measures officials with respect to checking gasoline dispensing devices for accuracy, the Liaison Committee feels that the Conference should be generally informed about the law and the FTC rule, if only to be prepared to answer inquiries about it or for some possible 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.

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

Sec. 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 Federal Trade Commission (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.

Mr. Blickman of the FTC offers his assistance in answering any questions concerning the FTC rule on octane posting, possible Federal-State cooperation, possible future State octane posting regulations, or any other related activity. Such communications should be directed to Neil Blickman, Attorney, Division of Enforcement, Bureau of Consumer Protection, FTC, Washington, DC 20580, Telephone: 202-326-3038.

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 merchant-diser. 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 streetside 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 streetside 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)

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.

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 Food and Drug Administration and U.S. Department of Agriculture 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 Conference at this time.

2.6.6. Basic Motor Fuels Testing Laboratory (L&R, 1987, pp 158-173)

(Developed by the Task Force on Motor Fuels.)

Introduction

During the 68th National Conference on Weights and Measures, delegates to the Conference voted to establish labeling guidelines for motor fuels containing at least one percent alcohol. The delegates deemed this action necessary because motor vehicle manufacturers were qualifying their warranties with respect to some gasoline-alcohol blends (oxygenated fuels), motorists were complaining to weights and measures officials about fuel quality and vehicle performance, and ASTM was encountering delays regarding the development of quality standards for oxygenated fuels. While many argued that weights and measures officials should not cross the line from quantity assurance programs to programs regulating quality, the delegates were persuaded that the issue needed immediate attention.

Need for Uniformity

State directors of the several motor fuels testing programs have long recognized the need for a uniform approach

to fuel inspection and regulation. With the introduction of gasoline-alcohol blends and the rush to promulgate regulations governing them, this need became even more apparent. Also, many states without an inspection program were being urged by citizens to do something about poor fuel quality. However, states seeking information on fuels testing found that such information was not readily available nor was there a single organization capable of providing guidance from a regulatory perspective. In an attempt to fill a regulatory and information void, the Chairman of the 69th National Conference on Weights and Measures appointed a Task Force on Motor Fuels. The task force was given the mission of identifying information and resources that were available from standards development organizations, professional organizations, private companies, trade associations, and state fuels testing programs which could be used by states and other organizations interested in developing a fuels testing program.

A fuels testing program is of little value unless fuels are tested for compliance with recognized standards. ASTM standards are universally recognized and designed to serve most of the current vehicle population. Membership in ASTM is highly recommended: it is an invaluable means of establishing contacts with experts. Whether or not a state decides to fund membership in ASTM, every state motor fuel laboratory should participate in the National Exchange Group, a quality assurance round robin administered by ASTM Subcommittee D02.01 on Combustion Characteristics of Committee D02.

State Operated or Contract

The value of a motor fuels testing program to a state's citizens can be enormous. However, a program is expensive, even if a state chooses to contract fuel testing to a private laboratory. The question is often asked: "Is there a point at which it is cheaper for a state to operate its own fuels-testing laboratory?" The task force concluded that a program testing 6,000 samples per year (500 per month) is the minimum level to justify building and equipping a fuels-testing laboratory.

For programs expecting to test less than 6,000 samples, contracting the laboratory analysis may prove to be more economical. However, consideration must be given to the time required for a private laboratory to complete the analysis. The value of any inspection program is diminished if laboratory turnaround time is so great that the product under inspection is consumed before the results of an analysis are known.

There is no better way to understand the complexities of testing than to visit a state with an active program. For

example, Arkansas, California, Florida, Georgia, Maryland, North Carolina, and South Carolina have active programs and are willing to host tours of their facilities. Interested parties are encouraged to make such a visit.

Minimum Program

This document outlines a minimal inspection program. Information is given on facility needs, recommended ASTM test procedures, approximate cost for equipment, and the number of personnel required for staffing. Many questions and details remain to be resolved.

The following individuals have served on task forces and are available to answer questions and provide comprehensive information:

N. David Smith, North Carolina, Chairman
 Sydney Andrews, Retired, Florida
 Barbara Bloch, California
 David Karlish, Arkansas
 George Mattimoe, Hawaii
 Frank Nagele, Michigan
 John O'Neill, Kansas
 Harwood Owings, Retired, Maryland
 Curtis Williams, Georgia
 Carroll Brickenkamp, NIST Technical Advisor

Laboratory Facility

A fuels testing laboratory requires a unique building, designed to accommodate laboratory instruments ranging from very sophisticated atomic absorption spectrophotometers to octane engines capable of producing severe vibrations. In addition, extremely flammable liquids will be stored and tested throughout the facility. Obviously, the facility design must minimize the chances of explosion and fire, and also withstand the forces in the event of an explosion with the aid of special pressure hatches and explosion panels. To minimize the exposure to other personnel and facilities, a fuels testing laboratory should be in a separate building not connected to other structures.

Special consideration should be given to the following:

1. Sufficient ventilation to ensure that workers are not unduly exposed to gasoline fumes or other toxic vapors.
2. Fume hoods and exhaust systems in laboratory areas.
3. Drain lines resistant to acid and petroleum products.
4. Traps to prevent petroleum products from entering the sewer system.

5. Special foundations for American Society for Testing and Materials and the Cooperative Fuel Research Committee (CFR) engines. It is recommended that sufficient foundations for future expansion be installed during initial construction.

6. Necessary safety equipment, such as fire blankets, fire extinguishers, eye baths, etc.

7. Automatic fire extinguisher system for laboratory areas. The system's design should recognize that some types of laboratory instruments can be damaged by water or by dry chemical extinguishing systems.

8. An adequate heating, ventilation, and air conditioning (HVAC) system since many of the testing procedures, particularly octane testing, generate significant amounts of heat.

9. A properly designed and sized electrical system.

10. The laboratory's design must ensure that all fuels testing can be performed in accordance with ASTM requirements. This consideration is especially important for the CFR engines. Volume 05.04 of ASTM Annual Book of Standards contains valuable information regarding the design of a knock-testing laboratory.

11. Automatic hydrocarbon monitors to warn of critical accumulation of explosive vapors.

Several fixed equipment items are necessary for the laboratory's operation, including:

1. Air compressor and piping of sufficient size to supply the entire laboratory's needs.

2. Vacuum system for the entire laboratory.

3. Gas and water piped to all areas of the laboratory.

4. Three 500-gallon tanks for storage of leftover fuels. (Larger tanks may be needed if they are also used to supplement the program's vehicle needs.)

The size of the laboratory will depend on the needs of the agency and the scope of the fuels testing program. As previously mentioned, a fuels-testing laboratory is unique, hence it may be very difficult to justify the conversion of an existing structure. The following space listing is for a small laboratory capable of testing 6,000 samples per year. Some space requirements, such as octane testing, may seem large, but it is strongly recom-

mended that 2 additional engine foundations be installed during initial construction.

1. offices, toilet facilities, etc. (as required)

No space requirements are listed for offices, conference room, and personnel requirements (toilets, break room, etc.) as this must be determined by the user based on program needs and local building codes.

2. octane room - designed for 4 engines (800 sq. ft.)

3. general lab (750 sq. ft.)

4. distillation lab (400 sq. ft.)

5. shipping and receiving (includes preparation area for empty sample containers) (400 sq. ft.)

6. flash point lab (200 sq. ft.)

7. shop area (225 sq. ft.)

8. storage for supplies (225 sq. ft.)

9. flammable storage (may be a separate building) (225 sq. ft.)

Total square footage (exclusive of Item 1) -- 3225 sq. ft.

Including offices, toilet facilities, hallways, etc., the total building size may well exceed 4000 square feet.

Tests and ASTM Test Procedures¹

Spark Ignition Engine Fuel-D4814

1. Distillation D 86

2. Octane (Anti-knock Index)
Research D 2699
Motor D 2700

3. Reid Vapor Pressure D 323

4. Alcohol Content and Type (ASTM 4814 contains analytical procedures under consideration)

5. Lead Content D 3237

6. Workmanship D 4814

Diesel Fuel-D975

1. Flash Point D 93 is the preferred method but D 56 may be used in certain circumstances.

2. Distillation D 86
3. API Gravity D 1298
4. Sulfur Content D 1266 (lamp), D 2622 (X-ray spectrograph), or D 4294 (X-ray fluorescence)
5. Water and Sediment D 1796

NOTE: The API gravity and distillation results can be used to calculate the cetane index per ASTM D 976.

Kerosene-D3699

1. Flash Point D 56
2. Distillation D 86
3. Sulfur Content D 1266 (lamp), D 2622 (X-ray spectrograph), or D 4294 (X-ray fluorescence)
4. Color D 156
5. Water and Sediment D 1796

Measurement Assurance and Quality Control

ASTM Subcommittee D02.01, Combustion Characteristics, of Committee D02 operates a National Exchange Group (NEG). There are three subgroups of the NEG: the Motor Fuel Exchange Group, the Diesel Fuel Exchange Group, and the Aviation Gasoline Exchange Group. Of three types of participation, only two will concern a state laboratory: a "member" laboratory receives monthly samples and agrees to participate in special methods research; and, a "quarterly participant" receives two sets of samples every three months but is not bound to run special tests. The fee for members or for quarterly participants is \$150 per year (as of 1987).

Values for the API Gravity (ASTM D287), Reid Vapor Pressure (ASTM D323), Distillation (ASTM D86), lead content (ASTM D3237), and Hydrocarbon Type (ASTM D1319) will be reported for all participants along with the research and motor octane values for spark ignition fuel (D2699 and D2700 methods). API Gravity (ASTM D287), Distillation (ASTM D86), Flash Point (ASTM D93), Aniline Point (D611), Kinematic Viscosity (ASTM D445), and Sulfur Content (ASTM D129) are reported with cetane values for diesel fuel.

Operating as a member or quarterly participant in the NEG is the only means at the national level for assessment of quality in the motor fuel laboratory. (There are also

regional groups operating under the NEG.) Since motor fuel and diesel fuel samples are somewhat perishable, participation in the NEG is recommended for internal quality control and quality assessment. NIST Standard Reference Materials (SRM) 1636a and 1637a (lead in reference fuels) and 1616 (sulfur in kerosene) should be used to maintain internal quality control for these constituents. In 1987, these SRMs cost approximately \$120 apiece.

General Note: ASTM test methods listed here and/or test methods listed in ASTM standard specifications do not necessarily exclude other ASTM procedures that are designed for the purpose and that give comparable accuracy.

Further information on these programs are available from:

ASTM - NEG Program	Office of Standard Reference Materials
1916 Race Street	Bldg 222, Room B-311
Philadelphia, PA 19103	Gaithersburg, MD 20899
215-299-5400	301-975-6776

Laboratory Equipment and Supplies [1987 prices]

Octane Testing

	<u>Cost</u>
1 CFR Research Method Engine with automatic compression ratio changer	\$80,000
1 CFR Motor Method Engine with automatic compression ratio changer	80,000
1 Fuel blending system	4,000
Humidity controller for CFR engines (either mechanical or ice tower)	2,000
Reference fuels (Iso Octane, N-Heptane, 80/20 blend, Toluene)	3,600
Complete set of mechanic tools and other special tools	5,000
Lift for removing cylinders from engines	2,000
Supplies, spare parts, etc. (see attached list)	<u>24,150</u>
Total	\$200,750

Distillation Testing

2 Explosion proof refrigerators (18 cu. ft.)	\$ 5,000
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Interpretations and Guidelines

1 Mercury barometer (will also be used for other tests)	250
2 Mechanically refrigerated 4 unit distillation apparatus	30,000
Supplies, thermometers, distilling flasks, graduated cylinders, spare parts, etc.	<u>4,500</u>
Total	\$39,750

NOTE: Because of greater accuracy, automatic distillation units, at \$22,500 each, should be considered.

RVP Testing

1 5 unit RVP bath	\$ 2,500
6 RVP bombs	4,200
6 RVP gauges	1,200
1 Mercury manometer for calibrating RVP gauges	700
1 Small explosion proof freezer	1,900
Supplies, thermometers, etc.	<u>500</u>
Total	\$11,000

Sulfur Testing

1 X-ray fluorescence analyzer	\$25,000
Supplies, test cups, etc.	<u>2,000</u>
Total	\$27,000

Note: Low sulfur testing will require another instrument such as a lamp method apparatus.

Alcohol Testing

1 Gas chromatograph	\$26,000
Supplies, compressed gases, etc.	<u>1,800</u>
Total	\$27,800

Lead Testing

1 Atomic absorption apparatus	\$20,000
Supplies, flasks, accessories, etc.	<u>1,500</u>
Total	\$21,500

Kerosene-Diesel Testing

2 Tag closed cup flash testers	3,000
2 Pensky-Martens flash testers	5,000
10 Hydrometers for API gravity	200
1 Saybolt chromometer (color test)	1,500
Supplies, spare parts, thermometers, etc.	<u>800</u>
Total	\$10,500

NOTE: To calculate cetane index, a separate diesel-kerosene distillation unit is desirable (\$2,500)

Miscellaneous Items

100 Sample cases to transport samples (construction must be acceptable for transport via commercial carrier)	\$10,000
1200 Sample containers [either one qt. flint glass (amber since some gasoline additives are light sensitive) or metal containers with caps]	3,500
1 Oven for drying bottles	3,000
1 7.6 liter/hour water still	4,000
1 Copy machine	3,000
1 Analytical balance	2,000
Miscellaneous supplies	1,500
Books including ASTM Standards	<u>500</u>
Total	\$27,500

Office Equipment and Supplies

No listing is given since needs are determined by the program's scope. However, the cost of items such as desks, filing cabinets, typewriters, forms, and miscellaneous office supplies must be considered when planning an initial budget.

Summary

Octane Testing	\$200,750
Distillation Testing	39,750
RVP Testing	11,000
Sulfur Testing	27,000
Alcohol Testing	27,800
Lead Testing	21,500
Kerosene-Diesel Testing	10,500

Miscellaneous Items 27,500
Office Equipment and Supplies (as needed)

Total Start Up Needs \$365,800

NOTE: Prices based on 1986 information.

Personnel

Fuels testing must be done in strict conformance with ASTM testing procedures, and competent laboratory personnel is a necessity. Octane testing in particular requires individuals with highly specialized talents. These individuals must exhibit good judgement and exceptional laboratory skills, and possess the talents of a first class mechanic since all engine maintenance and repair is usually the responsibility of the engine operator. Obviously, experienced octane engine operators are difficult to find, and industry generally considers it takes 2 to 5 years to properly train an operator. Other laboratory tests are either not as highly specialized or follow more closely those analytical procedures familiar to those with an educational background in the physical sciences.

For a small laboratory, the following personnel are recommended:

- laboratory supervisor	1
- CFR engine operators	2
- chemist	1
- technicians	2
- clerk	1
Total	7

No allowances have been made for sample collection since the number of required personnel depends on the size of the jurisdiction and the availability of other personnel, such as weights and measures inspectors, to obtain samples.

Parts and Supplies for CFR Engines

<u>Quantity</u>	<u>Item</u>	<u>Cost</u>
1	Carbon blaster (Waukesha AA110900)	\$1,320.00
1	Cylinder overhaul stand assembly complete (Waukesha 818-1)	1,615.00
1	Valve seat insert tool (Special made by machinist)	100.00
1	Compressor, piston ring (Waukesha 0106965)	101.00
1	Expander, piston ring (Waukesha 106893)	170.00

1	Gauge, cylinder depth assembly (Waukesha A109268-B)	275.00
1	Valve lifter (Waukesha 0106777)	102.25
1	Valve grinding tool with suction cup (Waukesha 075644)	10.00
1	Gauge, cylinder height (Waukesha A 110546-A)	22.30
1	Handle, wrench (Waukesha 105450)	11.90
	Wrench, crank gear nut (Waukesha 24088)	32.30
1	Valve seat grinding equipment complete with 3/8 and 7/16 pilots (115V)(Waukesha 106254-A)	934.00
1	Screw Driver, Allen (Waukesha A109802-A)	8.26
1	Pliers, piston pin retaining ring (Waukesha 109885)	12.20
1	Valve retainer block (Waukesha 106821)	26.40
1	Valve retainer block with cylinder overhaul stand (Waukesha 106821-A)	32.10
1	Wrench, spark plug, 7/8 hex (Waukesha 24088-S)	5.90
1	Tap, spark plug hole, 18 mm (Waukesha 110904)	58.50
1	Tap, pickup hole, 7/8 - 18 (Waukesha 110905)	74.80
1	Piston pin remover (Waukesha 109023)	15.70
1	Wrench, spring loaded for TDC (Waukesha AA24088-U)	65.00
1	Button die 11/16 - 24 for pickup connector (Waukesha 110902)	116.00
1	Valve depressor assembly (Waukesha A110538)	32.60
1	Burette (Waukesha 109221)	215.00
1	Wrench, flywheel nut (Waukesha 24088-T)	37.00
1	Gauge, feeler (Waukesha 109284)	16.84

Interpretations and Guidelines

1	Remover, valve seat insert (Waukesha 0109405) 295.00	1	Standard Amplifier, Range: + .006"; minimum graduation .0001" (Comtorgage CM2) 145.00
1	Piston ring groove cleaner (Waukesha 106950) 14.00	1	Size range: .344"-.534", ground to nominal at .3750" with 6" total in-reach (Comtorgage Expansion Plug) 172.00
1	Tool, valve guide alignment (Waukesha 110653) 13.60	1	Size range: .365"-.510" (Comtorgage Reference Ring) 64.50
1	Venturi, remover (Waukesha 111367) 6.69	27	Ring, piston compression, straight (Waukesha 106222-A) 73.71
1	Adapter, cylinder sleeve torque wrench (Waukesha 56372) 44.50	9	Ring, piston compression, chrome, straight, top (Waukesha 106222-B) 47.70
1	0"-1" Micrometer (outside) with ratchet stop and lock nut; carbide faces, graduation .0001" (Starrett T436RLX-1) 50.05	9	Ring, piston, oil, straight (Waukesha 23505) 27.00
1	1"-2" Micrometer (outside) with ratchet stop and lock nut; carbide faces, graduation .0001" (Starrett T436RLX-2) 59.65	2	Cylinder, assembled with valve guides, valve seat inserts, pipe plugs, valves, valve springs, studs, tray, piston, piston pin and piston rings + valve rotator (Waukesha FA 109355) 4,660.00
1	2"-3" Micrometer (outside) with ratchet stop and lock nut; carbide faces, graduation .0001" (Starrett T436RLX-3) 66.50	4	Valve, intake (Waukesha 23436-A) 658.00
1	3"-4" Micrometer (outside) with ratchet stop and lock nut; carbide faces, graduation .0001" (Starrett T436RLX-4) 72.25	4	Valve, exhaust (Waukesha 106625) 210.00
1	2"-8" Micrometer (inside) graduation .001" (Starrett 124AZ) 83.25	4	Pin, intake valve (Waukesha 26800) .24
1	0"-6" Micrometer (depth gauge) with ratchet stop and lock nut, in case graduation .001" (Starrett 440Z-6RL) 94.45	4	Insert, cylinder valve seat (Waukesha 105987-A) 91.20
1	Magnetic base indicator holder (Starrett 657AA) 60.70	2	Guide, intake valve (Waukesha 23109-B) 25.80
1	0"-1.000" Dial Micrometer (dial gauge) .001"; One rev.: .100"; dial reading 0-50-0 (Starrett 25-341J) 58.50	2	Guide, exhaust valve (Waukesha 23109-A) 20.60
1	0"-1.000" Dial Micrometer (dial gauge) graduation: .001"; One rev.: .100"; dial reading 0-100 (Starrett 25-441J) 58.50	20	Felt, valve stem (Waukesha B-4680) 39.00
1	Crankshaft Distortion, dial gauge 2-3/8" to 18" (Starrett 696Z) 200.00	1	Sleeve, cylinder assembly (Waukesha 830-3) 510.00
1	Set of (6) No. 579A, 579B, 579C, 579D, 579E, 579F in case (Starrett S579HZ) 82.30	50	Plug, spark (Waukesha 111460) 170.00
		1	Carrier, support and rocker arm assembly (Waukesha 00110159) 570.00
		4	Rod, push, assembly (Waukesha OB-5264) 142.00
		6	Gasket, valve spring tray (Waukesha 106424) 2.70
		20	Gasket, cylinder guide plate, lower (Waukesha 106721) 14.00

20	Gasket, cylinder guide plate, upper (Waukesha B-2544)	14.00	6	Gasket, bleed tube (Waukesha 109778)	2.58
6	Shim, cylinder worm shaft (Waukesha 105041)	4.20	12	Gasket, valve body (Waukesha 75982-A)	5.40
2	Ignition trigger (Waukesha 111417T)	182.00	16	Gasket, fiber (Waukesha B-3207)	10.72
1	Valve, oil relief, assembly (Waukesha A109538-A)	135.00	2	Glass (Waukesha 75974)	40.60
2	Pickup Detonation, assembly (Waukesha W-109927)	1,625.00	2	Glass, tank gauge (Waukesha B-5094)	7.44
2	Plunger, oil relief valve (Waukesha 106827)	16.52	16	Gasket, gauge assembly (Waukesha 75552-A)	4.00
2	Spring, oil relief valve (Waukesha B-9107-A)	15.02	16	Gasket, carburetor float (Waukesha 105061)	10.56
2	Screw, oil relief valve adjusting (Waukesha 105593)	14.34	1	50 ft.Tygon tubing 3/8 D X 1/4 ID (Waukesha 441011)	152.00
5	Gasket, oil relief valve (Waukesha 109561-A)	7.60	1	Crankcase drawing (Waukesha L46841C)	7.80
1	Screen, oil assembly (Waukesha 0109552)	97.60	12	Exhaust carbon blaster bags (Waukesha 110901)	70.20
10	Gasket, oil screen (Waukesha 109553)	5.80	50	Gasket, pickup (Waukesha 11342)	20.00
1	Pump, oil assembly (Waukesha 0110150)	244.00	12	Gasket, carburetor, thick, two-bolt (Waukesha 75748)	24.00
10	Gasket, oil pump body (Waukesha 109559-B)	29.10	24	Gasket, carburetor, thick, four-bolt (Waukesha 109346)	31.68
10	Gasket, breather body (Waukesha B-1956-A)	6.20	24	Gasket, exhaust manifold (Waukesha B 2557)	51.84
5	O-ring (Waukesha 157497-M)	4.70	12	Gasket, carburetor, thin, four-bolt (Waukesha 109345)	13.44
2	Cup, breather valve (Waukesha 110670)	21.60	12	Gasket, coolant condenser body (Waukesha 75690)	7.92
30	Filter, spin-on (Waukesha 111346)	406.00	24	Gasket, water pipe (Waukesha B5096A)	12.24
5	Gasket, condenser gauge (Waukesha 75552-A)	1.25	12	Gasket, mixture heater housing (Waukesha 105991)	40.44
2	Glass, condenser gauge (Waukesha B-5094)	7.44	1	Heater, manifold, flanged, 110 volt (Waukesha H-106748-C)	321.00
1	Tube, carburetor jet assembly (Waukesha 0-75985-B)	54.30	16	Gasket, carburetor, valve body (Waukesha 75982-A)	7.20
1	Tube, air bleed carburetor (Waukesha 75983-B)	55.30	12	Washer, carburetor horizontal fuel jet hole (Waukesha B-3207)	8.04

Interpretations and Guidelines

12	Washer, carburetor tank gauge, lower (Waukesha B-5052)	3.36	2	Bead, glass (Replacement 300 °F) (Waukesha 10389A)	115.00
12	Washer, carburetor tank gauge, upper (Waukesha B-5068)	3.60			
12	Washer, coolant condenser gauge, lower (Waukesha B-5052-A)	3.36			
24	Gasket, removable spacer (Waukesha 110523)	41.28			
1	Manifold, exhaust, hot (Waukesha 023242-A)	130.20			
3	Thermometer, air intake (60 - 160 °F), 1/8" pipe thread (Waukesha 0106317-A)	159.00			
3	Thermometer, intake manifold (200 - 350 °F), gland type (Waukesha 0110351)	121.30			
1	Belt, induction motor to engine (50 + 60 cycle), set of 2, research (Waukesha OB-5500)	55.40			
1	Belt, induction motor to engine (60 cycle), set of 2, motor (Waukesha 027970)	64.40			
1	Controller, temperature with interconnecting cables for use with console panel (Waukesha AA111412)	1,203.00			
1	Probe, thermistor (125 °F) (Waukesha 110386)	210.00			
2	Bead, glass (replacement 125 °F) (Waukesha 110386A)	115.00			
12	Gasket, thermistor probe (Waukesha BD-190)	6.48			
1	Generator, signal, assembly, 120 volt (Waukesha 111605)	860.00			
1	Meter, detonation for console panel (Waukesha A 111263-B)	2,600.00			
12	Filter bag carbon blaster (Waukesha 110958)	67.32			
1	Pipe, water, assembly (Waukesha 0109131B)	66.40			
1	Probe, thermistor (300 °F) (Waukesha 110389)	210.00			

Index

-A-

Abbreviations (54), (58)
Access (19)
Accessories (15)
Acetylene (94)
Acetylene gas cylinder tare weight (94)
Addition of water to grain (168)
Administrative hearing (21), (31)
Advertisement (87)
Advertisement, lumber (90)
Advertising bulk commodities (87)
Advertising food commodities (85)
Advertising packages for sale (20)
Aerosols and similar pressurized containers (61)
Aerosols, net weight, interpretation (138), (139)
Afghans (63)
Alcohol (50)
Alcoholic beverages (66)
Allowable difference, glassware (96)
Allowable difference, tare weight, compressed gas (94)
Allowable difference, tare weights, rail cars (96)
Allowable differences: combination quantity declarations (96)
Aluminum foil insulation (93)
Animal bedding (96)
Animal bedding, test method (157)
Anthracite (93)
Antifreeze (50), (69)
Antiknock index (37)
Apples, method of sale, guideline (151)
Appliance (15)
Appliance covers (63), (64)
Apricots, method of sale, guideline (151)
Argon (94)
Artichokes, method of sale, guideline (151)
Artificial logs (87)
Asparagus, method of sale, guideline (151)
Asphalt paints (87)
Association of Bedding and Furniture Law Officials (69)
Audio and video tapes, method of sale (154)
Audio recording tape (68)
Automotive colling system antifreeze (69)
Auxiliary containers (49)
Average declaration (57), (58)
Average of the quantities (70)
Average requirement, compressed gas (94)
Aviation fuel (37)
Avocados, method of sale, guideline (151)
Avoirdupois (54)

Avoirdupois ounce (53)
Avoirdupois pound (53)

-B-

Bag-type commodities (62)
Bags (62), (65)
Bags, polyethylene (92)
Bakery products (83)
Bakery products, MAV's, policy (158)
Baled straw, animal bedding (96)
Bananas, method of sale, guideline (151)
Barbeque (85)
Bargain size (72)
Bath mats (63), (64)
Batt insulation (93)
Beams (89)
Beans, method of sale, guideline (152)
Bedding, animal (96)
Bedsheets (56), (63)
Bedspreads (63)
Beef (84)
Beef, items with, identity (143)
Beer (53), (58)
Beets, method of sale, guideline (152)
Berries (83)
 definition (83)
Berries, method of sale, guideline (152)
Best if used by date (117), (118)
Bidimensional commodities (55), (56)
Biscuits
 bread (83)
Bituminous (93)
Blanket insulation (93)
Blankets (63)
Blown letters (59)
Blown numbers (59)
Blown stemware (96)
Blown tumblers (96)
Blueberries (83)
Boards (89)
Bone in (85)
Boneless (85)
Bonus offer (70)
Bottom 30 percent (59)
Boudoir-type (67)
Boxes (62)
Brake fluid (50)
Brand (64)
Bread (83)
Broccoli, method of sale, guideline (152)
Bromated flour (84)
Brussels sprouts, method of sale, guidelines (152)

Budget pack (72)
 Bulk deliveries (20)
 Bulk food commodities (85)
 Bulk sales (20), (85), (87), (156)
 Buns
 bread (83)
 Bushel (63)
 Butane (95)
 Butter (83)
 Butter, exemptions (67)
 Butter-like spreads (83)

-C-

Cabbage, method of sale, guideline (152)
 Calculated to mislead a person (19)
 Calibration (16), (17)
 California Bureau of Home Furnishings (69)
 California king (63)
 Camera film (68)
 Camping fuels (50)
 Candy (65)
 Cantaloupes, method of sale, guideline (152)
 Capacity (62), (63)
 Caps, lumber (89)
 Cardboard cartons, method of sale, guideline (152)
 Carpeting (91)
 Carpets (63), (64)
 Carrots, method of sale, guideline (152)
 Carry-out
 chicken (157)
 ready-to-eat, method of sale (86)
 Cartridge (67)
 Cash/Credit Pricing, motor fuel (167)
 Cassette tapes, method of sale (154)
 Catalyst beads, method of sale guideline (153)
 Cauliflower, method of sale, guideline (152)
 Caulking compounds (89)
 Celery, method of sale, guideline (152)
 Cellulose insulation (93)
 Centimeters (54)
 Cents-off representations (70)
 Cereal grains and oil seeds (168)
 Certificate of Conformance (125)
 Certificate of Registration (110)
 Certification of standards and testing equipment (111)
 Cetane number (37)
 Cheese (65)
 Cheese products (65)
 Cheese, unit pricing (103)
 Cherries (83)
 Cherries, method of sale, guideline (152)
 Chicken (84), (86)
 method of sale guideline (157)

Chicken parts (86)
 Chicken, items with, identity (143)
 Chicken, wet tare (159)
 Chips or pellets, stove wood (87)
 Cigarettes (66)
 Cigars (66)
 Circular containers (62)
 Citrus, 4/5 bushel, method of sale (137)
 Citrus, method of sale, guideline (152)
 Civil action (21)
 Civil penalties (30)
 Civil penalty (21)
 Clams (84)
 Clean Air Act (131)
 Cleaning solvents (50)
 Coal (88)
 Coated seed (65)
 Coatings (87)
 Cocoa, instant, method of sale, interpretation (151)
 Coconuts, method of sale, guideline (152)
 Coffee, instant, method of sale, interpretation (151)
 Color contrast (59)
 Color of letters (58)
 Combination declaration (52)
 Combination Package (50)
 Combination package, labeling, interpretation (140)
 Combination packages (62)
 Combination packages, exemptions (68)
 Combined metric and inch-pound declarations (57)
 Comforters (63), (69)
 Commercial and Law-Enforcement Weighing and
 Measuring Device (110)
 Commercial vehicle (19)
 Commodities
 bulk food (85)
 Commodities in liquid form (19)
 Commodities in package form (49)
 Commodities not in liquid form (20)
 Commodities sold by count (69)
 Commodities' variable weights and sizes (69)
 Commodity (19)
 Common fraction (57)
 Common fractions (57)
 Compact (67)
 Compressed or liquefied gases (93)
 Computer printer ribbons & tapes
 guideline (151)
 Confectionery (65)
 Consumer package (51), (52)
 Consumer packages (49)
 Consumption elsewhere than on the premises (86)
 Consumption on the premises (86)
 Container (60)
 Container-type commodities (62)

Copier machine dispersant (50)
 Cord (87)
 Corn flour (68), (84)
 Corn meal (68), (84)
 Corn, method of sale, guideline (152)
 Correct (15)
 Cosmetic (67)
 Cosmetics, vending machines, labels (154)
 Cost-per-unit information (18)
 Cottage cheese (85)
 Cottage cheese products (85)
 Count (18), (52), (56)
 chicken sold by, guideline (157)
 Count only (69)
 Count, label (65)
 Counterfeit (21)
 Covered hopper cars (97)
 Cranberries (83)
 Cranberries, method of sale, guideline (152)
 Cream (85)
 Criminal penalty (21)
 Crustaceans (84)
 Cubic (54)
 Cubic foot (53)
 Cubic inch (53)
 Cubic yard (53)
 Cucumbers, method of sale, guideline (152)
 Cultured milks (85)
 Cups (62)
 Currants (83)
 Currants, method of sale, guideline (152)
 Curtains (63), (64)
 Cushions (69)
 Cuts of tobacco (66)
 Cylinders of gases (93)
 Cylindrical containers (59), (62)

-D-

Dairy products (66)
 Date determination (119)
 Date expression (118)
 Date labeling (117)
 Date placement (119)
 Dates, method of sale, guideline (152)
 Deceive a person (19)
 Deceptive dealing (17)
 Decimal fractions (56), (57)
 Declaration of the quantity (57)
 Declarations of unit price (20)
 Decorative containers (67)
 Delivery ticket (20)
 Density, polyethylene (93)
 Determination of "sell by" date (118)

Devices (15)
 Diameter (63)
 Diesel fuel (50), (131)
 Dimension lumber (89)
 Director (15), (18)
 Dish cloths (63)
 Dishtowels (63)
 Dispenser labeling (95), (131)
 Dispenser, price posting (164)
 Display card package (61)
 Distilled spirits (53), (58)
 Distributor (51)
 Double (63), (85)
 Drained weight (15)
 Drapes (63), (64)
 Dressed (surfaced) lumber (89)
 Dresser scarfs (63)
 Drinking water (67)
 Drugs (68)
 Dry lumber (91)
 Dry measure (52), (57), (63)
 Dry-pint (54)
 Dry-quart (54)
 Dual declaration (20)
 Dual declaration of quantity (57)
 Dual quantity declaration, area measure (55)
 Dual quantity declaration, length measure (55)
 Dual quantity declaration, liquid measure (55)
 Dual quantity declaration, weight (55)
 Duties and powers of local officials (19)

-E-

Economy pack (72)
 Economy size (72)
 Eggplant, method of sale, guideline (152)
 Eggs (61)
 Eggs, exemptions (67)
 Encapsulated seed (65)
 Encouraging desirable economic growth (17)
 Engine fuel
 labeling (95)
 English language (58), (61)
 Entertainment value (68)
 Environmental Protection Agency (131)
 Escarole, method of sale, guideline (152)
 Establish labeling requirements (18)
 Establish requirements (18)
 ETBE (95)
 Ethers in engine fuel (95)
 Ethyl-t-butyl ether (95)
 Exaggeration of amount (57)

Index

Examination of standards and testing equipment (111)
Exemptions (18)
Exposure variations (70)

-F-

Face cloths (63)
Face cord (87)
Facilitate fraud (21)
Factory Packaged Ice Cream (85)
Federal Fair Packaging and Labeling Act (20), (53), (83)
Federally inspected plants, wet tare (159)
Federally regulated products (66)
Fee, Registration of service companies (110)
Feet or foot (54)
Felony (21), (31)
Felt roofing material (89)
Fence wire products (87)
Figs, method of sale, guideline (152)
Film (65)
Film, camera (68)
Film, movie, method of sale (154)
Film, polyethylene (92)
Fireplace logs, methods of sale guideline (153)
Fireplace wood (87)
 packaged (87)
Firewood (87)
Firewood, method of sale guideline (153)
Firmly established general consumer usage (52), (57)
Fish (84)
Fishing lines (69)
Fishing reels (69)
Fitted sheets (63)
Five square inches or less (67)
Fixture covers (63), (64)
Flags (63), (64)
Flat cars (97)
Flat sheets (63)
Flour (84)
Flour, exemptions (67)
Flour, moisture loss (158)
Fluid (54)
Fluid ounce (55)
Food bags (92)
Food commodities (85)
Food products, method of sale (83)
Food wrap (92)
Foot (53)
Footwear (63)
Formed letters (59)
Formed numbers (59)
Four feet (55)
Four pounds (55)

Four square feet (55)
Fraction of a cent (96)
Fractions (56)
Framing, lumber (89)
Free area (59)
Fresh fruit (65)
Fringe (64)
Frozen dessert products (85)
Frozen desserts similar to ice cream (66)
Frozen yogurt (85)
Fruit (65)
 small (83)
Fruit juices (67)
Fruits (83)
 methods of sale (151)
Fruits, methods of sale, guidelines (151)
Fuel
 engine (95)
 motor (95)
Fuel specifications (131)
Fuel, wood (87)
Full (57)
Fungicides (66)
Furniture scarfs (63), (64)

-G-

Gallon (54)
Garlic, method of sale, guideline (152)
Gasoline (50), (131)
 blends (95)
Gasoline dispenser labeling (95), (131)
Gasoline sales, metric price computations guidelines (164)
Gasoline testing laboratory (168)
Gasoline, half-pricing (166)
Gasoline, metric (164)
Gasoline, multi-tier pricing (167)
Gasoline, octane posting (166)
Gasoline, price posting (164)
Gasoline, street signs (164)
Gasoline-alcohol blend (131)
Gasoline-alcohol blends (95)
Gasoline-oxygenate blends (95), (131)
General consumer usage (52)
Generally parallel to the declaration (59)
Generic terms for meat cuts (85)
Giant (57)
Gift packages, labeling, interpretation (140)
Gift paper, method of sale, interpretation (136)
Girders, lumber (89)
Glassware, allowable difference (96)
Glazing compounds (89)
Gloves (63)

Gold (94)
 Good distribution practice (70)
 Good packaging practice (70)
 Grade of lumber (90)
 Grade of motor fuel (37)
 Graham flour (84)
 Grain, addition of water (168)
 Gram (58)
 Grams (54)
 Grapefruit, method of sale, 4/5 bushel (137)
 Grapefruits, method of sale, guideline (152)
 Grapes, method of sale, guideline (152)
 Gray area, flour (158)
 Green lumber (91)
 Greens, method of sale, guideline (152)
 Gross Weight, meat (86)
 Guidance for packagers on new moisture loss issues (163)
 Gusseted bag (62)

-H-

Half-pound prohibition (85)
 Half-pricing, gasoline (166)
 Hand lettering (58), (61)
 Hand script (59), (61)
 Handbook 105-1 (110), (125)
 Handbook 105-2 (110), (125)
 Handbook 105-3 (110), (125)
 Handbook 130 (16), (17)
 Handbook 133 (18), (70)
 Handbook 44 (16), (17), (29), (66), (110), (125)
 Handicraft threads (64)
 Hanging Weight, sale of meat (86)
 Hardwood lumber (92)
 Header strip (50), (70)
 Heating fuel (20)
 Helium (94)
 Hold orders (19)
 Hominy grits (84)
 Hosiery (63)
 House-type cars (97)
 Hydrogen, compressed gas (94)

-I-

Ice cream (66), (85)
 Ice milk (85)
 Identity (51)
 Identity of the commodity (20)
 Identity, consumer package (51)
 Identity, interpretation, no identity needed (135)
 Identity, meat and poultry, interpretation (143)
 Identity, nonconsumer package (51)

Identity, principal display panel (51)
 Imitation fruit juices (67)
 Incense method of sale guideline (153)
 Inch (53), (54)
 Inch-pound systems of weights and measures (52)
 Inch-pound units (53)
 Inches (55)
 Incorrect measure (19)
 Incorrect weight (19)
 Incorrect weight or measure (20)
 Individual servings less than 1/2 fluid ounce (66)
 Individual servings less than 1/2 ounce (66)
 Individual servings less than 15 grams (66)
 Individual servings less than 15 milliliters (66)
 Individual-serving-size packages of foods (66)
 Industrial thread (64)
 Information on packages (20)
 Ingredients statement (84)
 Injunction (22), (38)
 Inner wrappings (49)
 Insecticides (66)
 Inspect weights and measures (18)
 Inspection fee (38)
 Install weighing or measuring devices (109)
 Installed insulation (93)
 Instant concentration products, interpretation (151)
 Institution servings (66)
 Instruments (15)
 Insulation (93)
 Insulin-containing drugs (68)
 Intrastate commerce (70)
 Introductory offer (71)
 Investigations (18)

-J-

Joists, lumber (89)
 Judicial review (31)
 Jumbo (57)

-K-

Kale, method of sale, guideline (152)
 Kerosene (50), (95)
 Kiln drying (92)
 Kilogram (58)
 King (63)
 Knitted dish towels (64)
 Knitted face cloths (64)
 Knitted towels (64)
 Knitted utility cloths (64)
 Kohlrabi, method of sale, guideline (152)

-L-

l (53)
 Label (49)
 Label, unit pricing (104)
 Labeling requirements (18)
 Laboratory, motor fuel (168)
 Lacquers (68)
 Lamb (84)
 Large (85)
 Largest whole unit (52), (55-57), (63-65)
 Lawn bags (92)
 Leather goods (63)
 Leeks, method of sale, guideline (152)
 Lemons, method of sale, guideline (152)
 Less than 1 gallon (55)
 Less than 1 gram (54)
 Less than 1 kilogram (54)
 Less than 1 meter (54)
 Less than 1 square meter (54)
 Less than 1/2 ounce net weight (66)
 Less than 15 grams net weight (66)
 Less than 4 feet (55)
 Less than 4 pounds (55)
 Less than 4 square feet (55)
 Less than one liter (54)
 Less than specified quantity (19)
 Less than 1/2-ounce net weight (66)
 Lettering (58)
 Letters (60)
 Lettuce, method of sale, guideline (152)
 License fee (27)
 Licenses (28)
 Lignite (88)
 Lignite coal (93)
 Limes, method of sale, guideline (152)
 Liners (63)
 Lines of print or type (52)
 Liquefied gas (93)
 Liquefied petroleum gas (95)
 Liquefied petroleum gases (37)
 Liquid (54)
 Liquid measure (19), (52), (57), (63)
 Liquid oxygen used for respiration (95)
 Liquids (63)
 Liter (58)
 Lobster (84)
 Location (59)
 Logs, Artificial or processed (87)
 Long shelf-life food (117), (118)
 Loose-fill insulation, not cellulose (93)
 Loss or gain of moisture (19)
 Lot, shipment, delivery, definition, interpretation (138)
 Lowfat milk (85)

Lumber (89)
 Lumber, hardwood (92)
 Lumber, softwood (89)

-M-

Machine vended commodities (96)
 Magnitude of variations (70)
 Maintenance (18)
 Malt beverages (53), (58)
 Mangoes, method of sale, guideline (152)
 Manufacturer (51)
 Manufacturing practice (19)
 Margarine (68), (83)
 Margarine-like spreads (83)
 Mark as rejected (18)
 Matched lumber (90)
 Mattress (63)
 Mattress covers (63)
 Mattress pads (63), (69)
 MAV's, mulch (65)
 MAV's, polyethylene (thickness) (65)
 MAV's, polyethylene (weight) (65)
 MAV's, textiles (64)
 Measure (18)
 Measure containers (66), (83)
 Meat (66), (84), (85)
 Meat and poultry
 wet tare (159)
 Meat and poultry, identity, interpretation (143)
 Meat carcass (86)
 Meat cuts, terminology (85)
 Meat products (66)
 Meat quarter, sale from bulk (86)
 Meat side (86)
 Mechanical refrigerator cars (97)
 Melons, method of sale, guideline (152)
 Memorandum of Understanding, States and USDA
 (159)
 Meter (54)
 Method of sale (19)
 Method of sale, fruits and vegetables, guideline (151)
 Methyl-t-butyl ether (95)
 Metric gasoline sales (164)
 Metric net contents, interpretation (137)
 Metric system (15)
 Metric system of weights and measures (52)
 Milk (66), (85)
 Milk products (66), (85)
 Milk products that are solid, semi-solid, viscous or a
 mixture (85)
 Milligram (58)
 Milligrams (54)
 Milliliter (58)

Milliliters (54)
 Millimeters (54)
 Minimum (57)
 Minimum dressed sizes (width and thickness), lumber (90)
 Minimum height of numbers and letters (60)
 Minimum performance requirements (19)
 Minimum testing equipment (110)
 Misdemeanor (21), (31), (38)
 Mislead a person (19)
 Misrepresentation of price (19)
 Misrepresentation of price, interpretation, Point of Sale (135)
 Misrepresentation of quantity (19)
 Mixture of solid and liquid (52), (57)
 Mixtures of solids and liquids (63)
 ml (53)
 Moisture (19)
 Moisture loss (70)
 Moisture loss, flour (158)
 Moisture loss, guidelines for industry (163)
 Molded letters (59)
 Molded numbers (59)
 Mollusks (84)
 Motor fuel (37), (95), (131)
 Motor fuel laboratory (168)
 Motor fuel, half-pricing (166)
 Motor fuel, metric (164)
 Motor fuel, metric price computations (164)
 Motor fuel, multi-tier pricing (167)
 Motor fuel, octane posting (166)
 Motor fuel, price posting (164)
 Motor fuel, street signs (164)
 Motor oils (69)
 Movie film (68)
 Movie film, tapes, cassettes, method of sale (154)
 MTBE (95)
 Mulch (65), (94)
 Mulch: variations from declared volume (65)
 Multi-tier pricing (167)
 Multi-unit package (50)
 Multi-unit packages (61)
 Multi-unit soft drinks in bottles (67)
 Multi-unit soft-drink packages, exemptions (67)
 Mushrooms, method of sale, guideline (152)
 Mussels (84)

-N-

Napkins (63)
 National Type Evaluation Program (125)
 Nectarines, method of sale, guideline (152)
 Net quantity (52)
 Net weight (15), (52)

Net weight at retail, policy (158)
 Net Weight, definition, interpretation (135)
 Net weight, interpretation, paper (136)
 Net weight, polyethylene (93)
 New York (85)
 Nitrogen (94)
 Nominal size, lumber (91)
 Non-rectangular diapers (63), (64)
 Nonconsumer
 poultry (69)
 Nonconsumer package (49)
 Nonconsumer packages (61)
 Nonconsumer packages, quantity (57)
 Nonfood products (87)
 Not less than (57)
 Numbers (60)
 Numerical count (52), (57)

-O-

Oblong containers (62)
 Octane posting, gasoline (166)
 Oils (68)
 Okra, method of sale, guideline (152)
 Oleomargarine (83)
 One gallon (55)
 One-cent sale (70)
 One-draft weighing (29)
 Onions, method of sale, guideline (152)
 Open carriers (49)
 Open dating (17), (18), (117)
 Open multi-unit retail food packages (62)
 Open-dating exemptions (119)
 Oranges, 4/5 bushel, method of sale (137)
 Oranges, method of sale, guideline (152)
 Ordinary and customary exposure (70)
 Ornamentation (64)
 Other milk products (85)
 Ounce (54)
 Oxygen (94)
 Oxygen, liquid, used for respiration (95)
 Oxygenate labeling (95)
 Oysters (84)

-P-

Package (19), (49)
 Standard (51)
 Package count (20)
 Package information (20)
 Packaged commodities (18)
 Packaged commodity (20)
 Packaged natural wood (87)
 Packaged seed (64)

- Packages (49)
- Packaging and labeling (16)
- Packer (51)
- Paint removers (68)
- Paint, tint base, interpretation (142)
- Paints (68)
- Pans (62)
- Papaya, method of sale, guideline (152)
- Paper, gift wrap, interpretation, method of sale (136)
- Paper, net weight, interpretation (136)
- Parallel quantity declaration (59)
- Parallel to the base (51)
- Parsley, method of sale, guideline (152)
- Parsnips, method of sale, guideline (152)
- Participating Laboratory (125), (126)
- Passenger carrier servings (66)
- Pasteurized milk (85)
- Patterned lumber (90)
- Peaches, method of sale, guideline (152)
- Pears, method of sale, guideline (152)
- Peas, method of sale, guideline (152)
- Peat (88)
- Peat moss (88)
- Peck (54), (63)
- Pelletized seed (65)
- Pellets or chips, stove wood (87)
- Pencil (67)
- Peppers, method of sale, guideline (152)
- Perforated roll (62)
- Perforated roll-type commodities (55), (56)
- Performance requirements (19)
- Perishable food (117)
- Persimmons, method of sale, guideline (152)
- Person (15), (50)
- Petroleum products (50), (53), (58)
- Phosphated wheat flour (84)
- Pickles (85)
- Pile (87)
- Pill box (67)
- Pillow (63)
- Pillowcases (63)
- Pillows (69)
- Pineapples, method of sale, guideline (152)
- Pint (54)
- Placed in Service Reports (111)
- Placement (58)
- Places (55)
- Planks, lumber (89)
- Plastics (87)
- Platinum (94)
- Plugs of tobacco (66)
- Plums, method of sale, guideline (152)
- Plural forms (54)
- Ply (56)
- Police powers (19)
- Polyethylene products (65), (92)
- Polyethylene products: variations from declared weight (65)
- Pomegranates, method of sale, guideline (152)
- Pork (84), (85)
- Pork, items with, identity (143)
- Posts, lumber (89)
- Pot holders (63), (64)
- Pot roast (85)
- Potatoes, method of sale, guideline (152)
- Potpourri, method of sale, guideline (155)
- Poultry (84)
 - method of sale guideline (157)
 - nonconsumer (69)
- Poultry items, identity (143)
- Poultry products (66)
- Poultry, wet tare (159)
- Pound (54)
- Powers and duties (19)
- Precious metals (94)
- Prefabricated utility buildings (88)
- Prepackaged food (117)
- Preplanters (65)
- Prescription drugs (68)
- Presentation of price (96)
- Presentation of price, unit pricing (104)
- Pressed stemware (96)
- Pressed tumblers (96)
- Presumptive evidence (22)
- Preventing unfair dealing (17)
- Price (19)
- Price computations, gasoline, metri (164)
- Price computing food commodities (85)
- Price computing of bulk commodities (87)
- Price display (96)
- Price posting, gasoline, guidelines (164)
- Price representation, unit pricing (104)
- Pricing (19), (103)
- Pricing application³ (103)
- Primal cut (86)
- Primary standards (15), (16)
- Principal display panel (50-52), (59), (67)
- Printer tapes & ribbons
 - guideline (151)
- Privileges and responsibilities of a voluntary registrant (110)
- Prohibited acts (20)
- Prohibition (89)
- Prominence (58)
- Prominence and placement: nonconsumer packages (61)
- Promoting uniformity (17)
- Propane (95)

Proportion of numbers and letters (60)
 Protecting the consumer (18)
 Prunes, method of sale, guideline (152)
 Public weighing (27)
 Pumpkins, method of sale, guideline (152)
 Purlins, lumber (89)
 Putty (89)

-Q-

Qualification of declaration (57)
 Qualifying term (57)
 Quality representation (20)
 Quantity (19)
 Quantity of contents (20)
 Quantity, consumer packages (52)
 Quantity, nonconsumer packages (57)
 Quart (54)
 Quarter-pound prohibition (85)
 Queen (63)
 Quilts (63)

-R-

Rack (87)
 Radishes, method of sale, guideline (152)
 Rafters, lumber (89)
 Railroad car tare weights (96)
 Random package (49), (54), (55)
 Random packages (65), (69)
 Random weight package (15)
 Random weight packages (20), (69)
 Random weight packages, unit pricing (103)
 Raspberries (83)
 Ready-to-eat food (86)
 Ready-to-eat meal (86)
 Receipt requirement, meat sales (86)
 Recondition weighing or measuring devices (109)
 Rectangular containers (62)
 Reference temperature, refrigerated products (142)
 Refillable cylinders of gas (93)
 Refrigerated products, reference temperature (142)
 Registered service agency (109)
 Registered serviceperson (109)
 Registration (37)
 Registration fee (110)
 Registration of a motor fuel (37)
 Registration of service agencies (17)
 Registration of servicepersons (17)
 Reject (18)
 Relishes (85)
 Removal orders (19)
 Repair weighing or measuring devices (109)
 Requirements for open dating (18)

Resins (68)
 Responsibility (51)
 Responsibility for "sell by" date (118)
 Responsibility for advertisement (118)
 Restaurant servings (66)
 Restraining order (22), (31)
 Retail price (20)
 Retail tray pack displays (49)
 Returnable glass containers (66)
 Reusable glass containers (66)
 Revocation of Certificate of Registration (111)
 Rhubarb, method of sale, guideline (152)
 Ribbon
 Typewriter (151)
 Right of Cancellation (86)
 Roast (85)
 Rodenticides (66)
 Roll-type commodities (55), (56)
 Rolls
 bread (83)
 Rolls of fence wire (87)
 Rolls, felt roofing material (89)
 Roofing (88), (89)
 Roofing material (88)
 Rope caulk (89)
 Rough lumber (89)
 Round (85)
 Round-shaped containers (62)
 Rounding (57)
 Rugs (63), (64), (91)
 Rutabagas, method of sale, guideline (152)

-S-

Sale from bulk (15), (20), (85)
 Sale from bulk, individually wrapped items, method of sale (156)
 Sale from bulk, meat (86)
 Sale from bulk, nonfood products (87)
 Sale of an incorrect device, interpretation (136)
 Sale of commodities (16)
 Samples of motor fuels (37)
 Sampling procedures (18)
 Sand, method of sale (137)
 Sandwich bags (92)
 Sandwiches (86)
 Scallops (84)
 Sea shells, method of sale guideline (153)
 Seafood (84)
 Sealants (89)
 Secondary standards (15), (16)
 Seed tapes (65)
 Seeds (64)
 Self-rising wheat flour (84)

Index

Sell by date (117), (118)
Semi-anthracite (93)
Semi-bituminous (93)
Semi-perishable food (117), (118)
Semisolid (52), (57)
Semisolids (63)
Service report (111)
Service weighing or measuring device (109)
Sewing machine lubricant (50)
Sewing threads (64)
Sheeting (65)
Sheeting, polyethylene (92)
Shellfish (84)
Sherbet (85)
Shiplapped lumber (90)
Shipping containers (49)
 of random packages (69)
Shoes (63)
Shoulder (85)
Shrimp (84)
Sign, unit pricing (104)
Sills, lumber (89)
Silver (94)
Single draft weighing (29)
Six or less items (69)
Skim milk (85)
Sleeping bags (69)
Slip covers (63), (64)
Small cigars (66)
Small confections (65)
Small fruit
 definition (83)
Small fruits (83)
Small packages (67)
Small packages exemption (104)
Society of Automotive Engineers (SAE) (69)
Sod (89)
Soft-drink bottles, exemptions (67)
Softwood lumber (89)
Solid (52), (57)
Solid fuel products (93)
Solids (63)
Solvents (68)
Sour cream (85)
Spark-ignition motor fuel (131)
Special police powers (19)
Species group (90)
Species of lumber (90)
Specifications (16)
Spinach, method of sale, guideline (152)
Sponsor of a "cents-off" promotion (71)
Sponsor of an introductory offer (72)
Spot label (50), (70)
Spreads (83)

Square (54), (85), (88)
Square centimeters (54)
Square containers (62)
Square foot (53), (88)
Square inch (53), (55)
Square meter (54), (88)
Square yard (53)
Stale bread (83)
Stamp, unit pricing (104)
Stamped or stenciled tare weight (94)
Standard (63)
Standard Industrial Classification Manual (103)
Standard package (51)
 chicken (157)
Standards of fill (18)
Standards of weight (18)
Steak (85)
Stenciled tare weight (94)
Stenciled tare weights (96)
Stenciled tare weights, rail cars (96)
Sticker, unit pricing (104)
Stop-sale (19)
Stop-sale order (37)
Stop-use orders (19)
Stove wood (87)
Stovewood
 artificial logs (87)
 packaged (87)
 pellets (87)
Straw, baled, animal bedding (96)
Strawberries (83)
Street signs, gasoline (164)
Stringers (89)
Studs, lumber (89)
Style of type or lettering (59)
Supplementary declarations (57)
Supplementary quantity declarations (57)
Supplies (18)
Symbol (64)
Symbols (53), (54), (58)
Synthetic motor oil (50)
System of weights and measures in customary use (15)

-T-

Tablecloths (56), (63)
Tag, unit pricing (104)
Tangerines, method of sale, guideline (152)
Tank cars (97)
Tape, video or audio (68)
Tapes
 Typewriter (151)
Tapes, audio and video, method of sale (154)

- Tare
 - bulk sales (156)
 - Tare weight, stamped, compressed gases (94)
 - Tare weights (97)
 - Tea, instant, method of sale, interpretation (151)
 - Tear-away tag (67)
 - Temperature compensated sales (20)
 - Tending to mislead a person (19)
 - Test annually weight and measure standards (18)
 - Test equipment, weighing and measuring devices (110)
 - Test weights and measures (18)
 - Testing laboratory (37)
 - Textile packages (69)
 - Textile remnants (64)
 - Textiles (64)
 - Textiles, sold from bolt, interpretation (141)
 - Thinners (68)
 - Threads (64)
 - Three decimal places (55)
 - Throws (63)
 - Timbers (89)
 - Tint base paint (68)
 - Tint base paint, labeling, interpretation (142)
 - Tire tread rubber products, method of sale guideline (153)
 - Tobacco (66)
 - Tobacco products (66)
 - Tolerances (16)
 - Tomatoes, cherry (83)
 - Tomatoes, method of sale, guideline (152)
 - Towels (63)
 - Traceability (18)
 - Traceable (16)
 - Trade area (71)
 - Trade custom (52), (57)
 - Trademark (64)
 - Training requirements (19)
 - Transparent wrappers (49)
 - Trash bags (92)
 - Trim (64)
 - Trimmed (85)
 - Troy weights (94)
 - Truckload (87)
 - Turf (89)
 - Turf plugs (89)
 - Turf sod (89)
 - Turf sprigs (89)
 - Turkey (84)
 - Turnips, method of sale, guideline (152)
 - Twin (63)
 - Twists of tobacco (66)
 - Two decimal place (53), (55)
 - Two decimal places (56), (57)
 - Two for one (2 for 1) sale (70)
 - Type (125)
 - Type evaluation (17), (125)
 - Typewriter ribbon & tape guideline (151)
- U-**
- Unapproved measure (19)
 - Unapproved weight (19)
 - Unavoidable deviations in good manufacturing practice (19)
 - Unavoidable deviations in weighing, measuring, or counting (70)
 - Uniform date labeling of prepackaged, perishable foods (117)
 - Uniform Open Dating Regulation (17)
 - Uniform Packaging and Labeling Regulation (16)
 - Uniform Regulation for National Type Evaluation (17)
 - Uniform Regulation for the Method of Sale of Commodities (16)
 - Uniform Regulation for the Voluntary Registration of Servicepe (17)
 - Uniform Retail Meat Identity Standards (85)
 - Uniform Unit Pricing Regulation (16)
 - Uniformity (17)
 - Unit price (20), (65)
 - Unit price information (103), (104)
 - Unit pricing (16)
 - United States bushel (54)
 - Units of two or more meanings (54)
 - Unreasonable shortage (57), (58), (70)
 - Unseasoned lumber (91)
 - Upper and lower case letters (54)
 - Usable individual units (56)
 - USDA, agreement with States (159)
 - Utility buildings (88)
 - Utility cloths (63)
- V-**
- Value size (72)
 - Variations (19)
 - Variations from declared dimensions, textiles (64)
 - Variations from declared net quantity (70)
 - Variations from declared thickness, polyethylene (65)
 - Variations resulting from exposure (70)
 - Variety package (50)
 - Variety packages (62)
 - Variety packages, exemptions (68)
 - Variety packages, labeling, interpretation (140)
 - Varnishes (68)
 - Veal (84)
 - Vegetable oil, method of sale (154)

Index

Vegetables (65)
Vegetables, method of sale, guideline (151)
Vehicle (27)
Vending machine, packages (154)
Vending machines (96)
Video and audio tapes, method of sale (154)
Video recording tape (68)
Viscosity number (69)
Viscous (52), (57)
Viscous materials (63)
Volume at 15 °C (53), (58)
Volume at 20 °C (53), (58)
Volume at 39.1 °F (53), (58)
Volume at 4 °C (53), (58)
Volume at 40 °F (53), (58)
Volume at 60 °F (53), (58)
Volume at 68 °F (53), (58)
Voluntary registration (110)
Voluntary registration of service companies (109)

-W-

Wearing apparel (63)
Weighmaster (27)
Weight (15), (52), (54), (57), (89)
Weight and measure standards (18)
Weight, polyethylene (93)
Weight(s) and (or) measure(s) (15)
Weight(s) and (or) Measure(s), definition (135)
Weights and measures (17)
Weights and measures commercially used (18)
Weights and measures official (19)
Wet tare from federally inspected plants (159)
Wheat flour (84)
When packed (57)
Whole chicken
 sold by count (157)
Whole wheat flour (84)
Wiper blades, method of sale guideline (153)
Wiping cloths, labeling guidelines (154)
Wood (87)
 packaged (87)
Woven dish towels (64)

-Y-

Yard (53)
Yards (55)
Yarn by net weight, interpretation (142)
Yarns (64)
Yogurt (85)
Youth (63)

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