

Report of the Laws and Regulations (L&R) Committee

Judy Cardin, Chairperson
Wisconsin

200 INTRODUCTION

The L&R Committee (hereinafter referred to as the “Committee”) submits its Final Report for consideration of the 97th National Conference on Weights and Measures (NCWM). This report contains the items discussed and actions proposed by the Committee during its Interim Meeting in New Orleans, Louisiana, January 22 - 25, 2012. The report addresses the following items in Table A during the Annual Meeting held July 22 - 26, 2012, in Portland, Maine. Table A identifies the agenda items by reference key, title of item, page number and the appendices by appendix designations. The acronyms for organizations and technical terms used throughout the report are identified in Table B. The headings and subjects apply to NIST Handbook 130, *Uniform Laws and Regulations in the Areas of Legal Metrology and Engine Fuel Quality*, 2012 edition, and NIST Handbook 133, *Checking the Net Contents of Packaged Goods*, 2011 edition. The first three digits of an item’s reference key are assigned from the Subject Series List. The status of each item contained in the report is designated as one of the following: **(D) Developing Item:** the Committee determined the item has merit; however, the item was returned to the submitter or other designated party for further development before any action can be taken at the national level; **(I) Informational Item:** the item is under consideration by the Committee but not proposed for Voting; **(V) Voting Item:** the Committee is making recommendations requiring a vote by the active members of NCWM; **(W) Withdrawn Item:** the item has been removed from consideration by the Committee. Table C provides the Summary of Voting Results for each Voting Item.

During the Annual Meeting, some Voting Items are considered individually, others may be grouped in a consent calendar. Consent calendar items are Voting Items that the Committee has assembled as a single Voting Item during their deliberation after the Open Hearings on the assumption that the items are without opposition and will not require discussion. The Voting Items that have been grouped into consent calendar items will be listed on the addendum sheets. Prior to adoption of the consent calendar, the Committee will entertain any requests from the floor to remove specific items from the consent calendar to be discussed and voted upon individually.

Committees may change the status designation of agenda items (Developing, Informational, Voting, and Withdrawn) up until the report is adopted, except that items which are marked Developing, Informational or Withdrawn cannot be changed to Voting Status. Any change from the Interim Report or from what appeared on the addendum sheets will be explained to the attendees prior to a motion and will be acted upon by the active members of NCWM prior to calling for the vote.

An “Item Under Consideration” is a statement of proposal and not necessarily a recommendation of the Committee. Suggested revisions are shown in **bold face print** by ~~striking out~~ information to be deleted and **underlining** information to be added. Requirements that are proposed to be nonretroactive are printed in **bold faced italics**. Additional letters, presentations, and data may have been part of the Committee’s consideration will appear as appendix items.

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

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

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Weighmaster Law	222 Series
Engine Fuels and Automotive Lubricants Inspection Law	223 Series
Uniform Regulations	230 Series
Packaging and Labeling Regulation (UPLR)	231 Series
Method of Sale Regulation	232 Series
Unit Pricing Regulation (UPR)	233 Series
Voluntary Registration Regulation	234 Series
Open Dating Regulation (ODR)	235 Series
Uniform National Type Evaluation Regulation	236 Series
Engine Fuels and Automotive Lubricants Regulation (EFR)	237 Series
Examination Procedure for Price Verification	240 Series
Interpretations and Guidelines	250 Series
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Table B
Glossary of Acronyms and Terms

Acronym	Term	Acronym	Term
API	American Petroleum Institute	NEWMA	Northeastern Weights & Measures Association
ASTM	American Society for Testing and Materials International	NIST	National Institute of Standards and Technology
BOV	Bag on Valve	NPA	National Pasta Association
CFR	Code of Federal Regulations	NTEP	National Type Evaluation Program
CNG	Compressed Natural Gas	OEM	Original Equipment Manufacturer
CRC	Coordinating Research Council	OMB	Office of Management and Budget
CWMA	Central Weights & Measures Assn.	ORVR	On-board Refueling Vapor System
D	Density	OWM	NIST Office of Weights and Measures
EPA	Environmental Protection Agency	PALS	Packaging and Labeling Subcommittee
EVSE	Electric Vehicle Supply Equipment	PDP	Principal Display Panel
FALS	Fuels and Lubricants Subcommittee	PEV	Plug-in Electric Vehicle
FDA	Food and Drug Association	PUC	Public Utility Commission
FPLA	Fair Packaging and Labeling Act	RFA	Renewable Fuels Association
FSS	Fuel Specifications Subcommittee	RMFD	Retail Motor Fuel Dispenser
FTC	Federal Trade Commission	§	Section Symbol
GUM	Guide to the Expression of Uncertainty in Measurement	S&T	Specifications and Tolerances
HB 130	NIST Handbook 130, Uniform Laws and Regulations in the areas of Legal Metrology and Engine Fuel Quality	SAE	Society of Automotive Engineers
HB 133	NIST Handbook 133, Checking the Net Content of Packaged Goods	SWMA	Southern Weights & Measures Association
HDPE	High Density Polyethylene	TG	Task Group
IEC	International Electrotechnical Commission	UPLR	Uniform Packaging and Labeling Regulation
ISO	International Organization for Standardization	UPR	Unit Pricing Regulation
L&R	Laws and Regulations	U.S. EPA	U.S. Environmental Protection Agency
LLPDE	Linear Low Density Polyethylene	USNHWG	U.S. National Hydrogen Work Group
LMDPE	Linear Medium Density Polyethylene	USNWG	U.S. National Work Group
MLWG	Moisture Loss Work Group	UWML	Uniform Weights and Measures Law
NAA	National Aerosol Association	VIM	International Vocabulary of Metrology
NARUC	National Association of Regulatory Utility Commissioners	W&M	Weights and Measures
NBB	National Biodiesel Board	WG	Work Group
NCWM	National Conference on Weights & Measures	WWMA	Western Weights and Measures Association

Table C
Summary of Voting Results

<i>Reference Key Number</i>	<i>House of Senate Representatives</i>		<i>House of Delegates</i>		<i>Results</i>
	<i>Yeas</i>	<i>Nays</i>	<i>Yeas</i>	<i>Nays</i>	
Consent Calendar 231-3, 232-1, 232-2, 232-3, 232-7, 237-6, 237-7, 237-9, 237-10, 260-4	34	0	42	0	Adopted
232-4	33	0	42	0	Adopted
237-1	30	3	31	6	Adopted
237-3	30	1	29	3	Adopted
237-4	34	0	39	0	Adopted
260-2	25	7	39	5	Returned to the Committee

Details of All Items
(In order by Reference Key)

210 NIST HANDBOOK 130 – GENERAL

210-1 W Clarification of Terminology

(This item was withdrawn.)

Source:

Mr. Steve Malone (2012)

Purpose: Clarify that weights and measures programs only provide the consumer the ability to make price and quantity comparisons, not the ability to make quality comparisons.

Item Under Consideration:

Amend NIST Handbook 130, Uniform Weights and Measures Law as follows:

Section 12. Powers and Duties of the Director

- (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~~ **quantity** comparisons by consumers, or offers an opportunity for consumer confusion;
(Amended 1991, 20XX)

Amend NIST Handbook 130, Uniform Packaging and Labeling Regulation as follows:

Amend NIST Handbook 130, Uniform Packaging and Labeling Regulation as follows:

Section 13. Retail Sale Price Representations

13.1. “Cents off” Representations.

- (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 price 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.

13.2. Introductory Offers.

- (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~~ **price** comparison; e.g., where the retailer charges a price that does not fully pass on to consumers the represented price reduction.

Amend NIST Handbook 130, Uniform Unit Pricing Regulation as follows:

1. Background (Paragraphs 4 and 5)

The NCWM eliminated the table of product groupings because it is difficult to keep it current and inclusive, so some newer products were not included under the uniform requirements. The table was replaced with requirements that specify that the unit price is to be based on price per ounce or pound, or price per 100 grams or kilogram, if the packaged commodity is labeled by weight. For example, the proposed revisions would require the unit price for soft drinks sold in various package sizes (e.g., 12 fl oz. cans through 2 L bottles) to be uniformly and consistently displayed in terms of either price per fluid ounce, price per quart, or price per liter. NCWM also increased the price of commodities exempted from unit pricing from 10 cents to 50 cents. NCWM believed these revisions would ensure that unit pricing information facilitates **value price** comparison between different package sizes and/or brands offered for sale in a store.

The NCWM also considered several comments on this item from members of the U.S. Metric Association. Most of these comments suggested that the Unit Pricing Regulation (UPR) be amended to require unit pricing in metric units and permit inch-pound unit pricing to be provided voluntarily. When it developed the proposed revisions, NCWM included guidelines for both inch-pound and metric unit pricing and believes this is the correct approach to implementing metric revisions in the regulation. NCWM would like to make it clear that the UPR applies only when stores voluntarily provide unit pricing information. Its purpose is to provide a standard that retailers must follow to ensure that consumers will have pricing information that helps them make **value price** comparisons. The decision to provide unit price information in metric or inch-pound units rests with retailers who will respond to consumer preference. NCWM believes that consumer preference will be the deciding factor as to when and how quickly metric unit pricing is used in the marketplace. Therefore, NCWM does not support amendments to include mandatory provisions in the UPR as these provisions would take the decision to go to metric unit pricing out of the hands of consumers and retailers. Finally, NCWM does not want to include any requirement that may discourage retailers from voluntarily providing unit price information.

(Amended 1997, **20XX**)

Amend NIST Handbook 130, NCWM Policy, Interpretations, and Guidelines, Section 2 as follows:

2.2.7. Aerosol Packaged Products

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 quantity** comparisons and causes consumer confusion with respect to the quantity of product the consumer is buying and can be a form of deceptive labeling.

2.3.15. Bulk Sales

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 quantity** comparison with other products sold by net weight.

2.6.1. Retail Gas Sales and Metric Price Computations in General

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 four significant digits

and should have at least the same number of significant digits as the number of significant digits in the quantity of product being converted. For example, if a 1000 gal delivery were to be converted to liters the value would be 3785 liters; for 10 000 gal, 37 854 L; for 100 gal, 378.5 L.

In the case of expressing a unit price equivalent for consumer **value price and quantity** 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 $\frac{1}{10}$ cent.)

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

Count

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

Area

- Chamois packages must have area declarations in both inch-pound and metric units.

Metric

- For areas that measure less than 1 m², the area shall be stated in square decimeters and decimal fractions of a square decimeter or in square centimeters and decimal fractions of a square centimeter;
- For areas that measure 1 m² or more, the area shall be stated in square meters and decimal fractions to not more than three places.

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

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

- Count

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

- Dimensions

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

To facilitate **value quantity** comparison and simplify the measurement process, sponges should be measured in $\frac{1}{2}$ in (1 cm) increments. Dimensions should be rounded down to avoid overstating the size of a sponge.

Background/Discussion:

The terminology “value comparison” implies that the requirements in NIST Handbook 130 encompass more than price and quantity, they also include the quality. This is not the intent of the requirements or the role for weights and measures officials. In today’s litigious world our rules and regulations need to be as clear and concise as possible so that it is not implied that the weights and measure official is providing a quality measurement.

This proposal makes terminology throughout the model laws and regulations consistent with the terminology used in the model Weights and Measures Law and the preamble of the Method of Sale Regulation, as follows:

Uniform Weights and Measures Law, Section 17. Method of Sale

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

Uniform Regulation for the Method of Sale of Commodities, Preamble

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

At the 2011 Central Weights and Measures Association Interim Meeting, an industry representative commented that this was an interesting proposal but may create more questions. A state regulator asked the definition of value, to which the submitter replied, “its worth.” A state regulator expressed concern because the term “value comparison” is included in his state statute. Another regulator suggested that an alternative to this proposal is to define “value comparison” rather than change the references in the handbook. The Committee determined that “value” is an accepted term in the weights and measures community, and the CWMA recommendation was to Withdraw the item.

At the 2011 Western Weights and Measures Association (WWMA) Annual Meeting, the Committee reviewed the Fair Packaging and Labeling Act (FPLA) and found that the term “value” is used (see below). The Committee firmly believes that language within NIST Handbook 130 needs to be consistent with FPLA and congressional intent. The WWMA, therefore, recommends the item be Withdrawn.

Fair Packaging and Labeling Act (FPLA)

TITLE 15 - COMMERCE AND TRADE

CHAPTER 39 - FAIR PACKAGING AND LABELING PROGRAM

§1451. Congressional Delegation of Policy.

Informed consumers are essential to the fair and efficient functioning of a free market economy. Packages and their labels should enable consumers to obtain accurate information as to the quantity of the contents and should facilitate **value comparisons** (emphasis added). Therefore, it is hereby declared to be the policy of the Congress to assist consumers and manufacturers in reaching these goals in the marketing of consumer goods.

At the 2011 Northeastern Weights and Measures Association (NEWMA) Interim Meeting, there were no comments. The NEWMA forwarded the item to NCWM, recommending it as a Developing Item.

At the 2011 Southern Weights and Measures Association Annual, the NIST Technical Advisor noted that a change in the language could cause a conflict with some state statutes who the adopt weights and measures law. It was also noted that FPLA consistently uses the term “value comparison.” The Committee believes the item has merit and warrants further discussion. The SWMA forwarded the item to NCWM, recommending it as an Informational Item.

At the 2012 Interim Meeting, comments were made that language should remain consistent with language in the FPLA. The history between W&M documents and FPLA should remain intact to allow for traceability back to originating statute. The NCWM 2012 L&R Committee recommends that this item be Withdrawn in its entirety.

221 NIST HANDBOOK 130 – UNIFORM WEIGHTS AND MEASURES LAW

221-1 D Section 1. Definitions

Source:

National Institute of Standards and Technology, Office of Weights and Measures (OWM) (2012)

Purpose:

The 1993 version of the *International Vocabulary of Metrology* (VIM) was updated in 2008 to reflect changes in international agreement about several of the key definitions it contains, in order to better align the definitions with the philosophy of the *Guide to the Expression of Uncertainty in Measurement* (GUM). The current definitions of five entries in the Uniform Weights and Measures Law (UWML) were taken from the 1993 version of the VIM, and do not reflect the changes introduced in the 2008 version of the VIM. The changes proposed below are to update those five entries so that they reflect current international agreement on terminology. Two new definitions that are related to the other five definitions are also being proposed to be added. By incorporating these seven definitions, the UWML will be brought into agreement with current international agreement on these metrology-related definitions. Specific explanations for each of the proposed additions, revisions, and deletions to the definitions are provided below under Background/Discussion.

Item Under Consideration:

Amend NIST Handbook 130, Uniform Weights and Measures Law as follows:

1.14. Calibration. – ~~An A set of operations which establishes, their a first step, establishes a relation~~ operation that, under specified conditions, the quantity values indicated by a measuring instrument or measuring system, or values represented by a material measure, and the corresponding known values of a measurand with measurement uncertainties provided by measurement standards and corresponding indications with associated measurement uncertainties and, in a second step, uses this information to establish a relation for obtaining a measurement result from an indication.

(Added 2005, Amended 20XX)

1.15. Metrological Traceability. – The property of ~~the a measurement result of a measurement or the value of a standard~~ whereby the result it can be related to ~~stated a~~ references, ~~usually national or international standards,~~ through a documented an unbroken chain of ~~comparisons all having stated uncertainties. calibrations, each contributing to the measurement uncertainty.~~

(Added 2005, Amended 20XX)

1.16. Measurement Uncertainty. – A non-negative parameter ~~associated with the result of a measurement that characterizes~~ characterizing the dispersion of the quantity values ~~that could reasonably be being~~ attributed to a measurand, the measurand, based on the information used.

(Added 2005, Amended 20XX)

1.19. Standard, Reference Measurement. – A measurement standard, ~~generally of the highest metrological quality available at a given location, from which measurements made at that location are derived. designated for the calibration of other measurement standards for quantities of a given kind in a given organization or at a given location.~~ The term “reference measurement standards” usually means the physical standards of the state that serve as the legal reference from which all other standards for weights and measures within that state are derived.

(Added 2005, Amended 20XX)

1.20. Standard, Working Measurement. – A measurement standard that is ~~usually calibrated against a reference standard, and is used routinely to calibrate or check material measures, measuring instruments or reference materials.~~ verify measuring instruments or measuring systems. The term “working measurement standards” means the physical standards that are traceable to the reference standards

through ~~comparisons~~ **calibrations or verifications**, using acceptable laboratory procedures, and used in the enforcement of weights and measures laws and regulations.

(Added 2005, Amended 20XX)

1.21. Metrological Traceability Chain. – Sequence of measurement standards and calibrations that is used to relate a measurement result to a reference.

(Added 20XX)

1.22. Metrological Traceability to a Measurement Unit. – Metrological traceability where the reference is the definition of a measurement unit through its practical realization.

(Added 20XX)

Background/Discussion:

Harmonization of NCWM terminology with internationally accepted terminology helps promote global acceptance of U.S. products abroad. Proposed modifications could interfere with commonly used NCWM terminology/concepts, but the presenter of this proposal believes that is not the case here.

1.14. Calibration. – An set of operations which establishes, under specified conditions, the relationship between values indicated by a measuring instrument or measuring system, or values represented by a material measure, and the corresponding known values of a measurand. operation that, under specified conditions, in a first step, establishes a relation between the quantity values with measurement uncertainties provided by measurement standards and corresponding indications with associated measurement uncertainties and, in a second step, uses this information to establish a relation for obtaining a measurement result from an indication.

NOTE 1: A calibration may be expressed by a statement, calibration function, calibration diagram, calibration curve, or calibration table. In some cases, it may consist of an additive or multiplicative correction of the indication with associated measurement uncertainty.

NOTE 2: Calibration should not be confused with adjustment of a measuring system, often mistakenly called “self-calibration”, nor with verification of calibration.

NOTE 3: Often, the first step alone in the above definition is perceived as being calibration.

(Added 2005, Amended 20XX)

1.15. Metrological Traceability. – The ~~property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties.~~ property of a measurement result whereby the result can be related to a reference through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty.

NOTE 1: For this definition, a “reference” can be a definition of a measurement unit through its practical realization, or a measurement procedure including the measurement unit for a non-ordinal quantity, or a measurement standard.

NOTE 2: Metrological traceability requires an established calibration hierarchy.

NOTE 3: Specification of the reference must include the time at which this reference was used in establishing the calibration hierarchy, along with any other relevant metrological information about the reference, such as when the first calibration in the calibration hierarchy was performed.

NOTE 4: For measurements with more than one input quantity in the measurement model, each of the input quantity values should itself be metrologically traceable and the calibration hierarchy involved may form a branched structure or a network. The effort involved in establishing metrological traceability for

each input quantity value should be commensurate with its relative contribution to the measurement result.

NOTE 5: Metrological traceability of a measurement result does not ensure that the measurement uncertainty is adequate for a given purpose or that there is an absence of mistakes.

NOTE 6: A comparison between two measurement standards may be viewed as a calibration if the comparison is used to check and, if necessary, correct the quantity value and measurement uncertainty attributed to one of the measurement standards.

NOTE 7: The ILAC considers the elements for confirming metrological traceability to be an unbroken metrological traceability chain to an international measurement standard or a national measurement standard, a documented measurement uncertainty, a documented measurement procedure, accredited technical competence, metrological traceability to the SI, and calibration intervals (see ILAC P 10:2002).

NOTE 8: The abbreviated term “traceability” is sometimes used to mean “metrological traceability” as well as other concepts, such as “sample traceability” or “document traceability” or “instrument traceability” or “material traceability”, where the history (“trace”) of an item is meant. Therefore, the full term of “metrological traceability” is preferred if there is any risk of confusion.

(Added 2005, Amended 20XX)

1.16. Measurement Uncertainty. – ~~A parameter associated with the result of a measurement that characterizes the dispersion of the values that could reasonably be attributed to the measurand.~~ non-negative parameter characterizing the dispersion of the quantity values being attributed to a measurand, based on the information used.

NOTE 1: Measurement uncertainty includes components arising from systematic effects, such as components associated with corrections and the assigned quantity values of measurement standards, as well as the definitional uncertainty. Sometimes estimated systematic effects are not corrected for but, instead, associated measurement uncertainty components are incorporated.

NOTE 2: The parameter may be, for example, a standard deviation called standard measurement uncertainty (or a specified multiple of it), or the half-width of an interval, having a stated coverage probability.

NOTE 3: Measurement uncertainty comprises, in general, many components. Some of these may be evaluated by Type A evaluation of measurement uncertainty from the statistical distribution of the quantity values from series of measurements and can be characterized by standard deviations. The other components, which may be evaluated by Type B evaluation of measurement uncertainty, can also be characterized by standard deviations, evaluated from probability density functions based on experience or other information.

NOTE 4: In general, for a given set of information, it is understood that the measurement uncertainty is associated with a stated quantity value attributed to the measurand. A modification of this value results in a modification of the associated uncertainty.

(Added 2005, Amended 20XX)

1.19. Standard, Reference Measurement. – ~~A standard, generally of the highest metrological quality available at a given location, from which measurements made at that location are derived.~~ measurement standard designated for the calibration of other measurement standards for quantities of a given kind in a given organization or at a given location. The term “reference standards” means the physical standards of the state that serve as the legal reference from which all other standards for weights and measures within that state are derived.

(Added 2005, Amended 20XX)

1.20. Standard, Working Measurement. – ~~A standard that is usually calibrated against a reference standard, and is used routinely to calibrate or check material measures, measuring instruments or reference materials.~~ measurement standard that is used routinely to calibrate or verify measuring instruments or measuring systems. The term “working standards” means the physical standards that are traceable to the reference standards through comparisons, using acceptable laboratory procedures, and used in the enforcement of weights and measures laws and regulations.

NOTE 1: A working measurement standard is usually calibrated with respect to a reference measurement standard.

NOTE 2: In relation to verification, the terms “check standard” or “control standard” are also sometimes used.

(Added 2005, Amended 20XX)

1.21. Metrological Traceability Chain. – Sequence of measurement standards and calibrations that is used to relate a measurement result to a reference.

NOTE 1: A metrological traceability chain is defined through a calibration hierarchy.

NOTE 2: A metrological traceability chain is used to establish metrological traceability of a measurement result.

NOTE 3: A comparison between two measurement standards may be viewed as a calibration if the comparison is used to check and, if necessary, correct the quantity value and measurement uncertainty attributed to one of the measurement standards.

(Added 20XX)

1.22. Metrological Traceability to a Measurement Unit. – Metrological traceability where the reference is the definition of a measurement unit through its practical realization.

NOTE 1: The expression “traceability to the SI” means “metrological traceability to a measurement unit of the International System of Units”.

(Added 20XX)

At the 2011 CWMA Interim Meeting, four state regulators commented that they do not support this proposal and asked why the international vocabulary could not align with NCWM. A state regulator asked that NIST, OWM provide examples of problems caused by the lack of alignment with these two publications. The CWMA recommends this item be Withdrawn.

At the 2011 WWMA Annual Meeting, a county official supported the efforts to harmonize the relationship with international counterparts and believes this item should be supported on those grounds. The WWMA supports the idea of the proposal but would like to have staff review this item before proceeding. The WWMA’s recommendation is to make this an Information Item.

At the 2011 NEWMA Interim Meeting, the Committee recommended the item as a Developing Item. The NEWMA believes that uniformity of definitions in the international marketplace will result in less confusion.

At the 2011 SWMA Annual, no comments were heard. The SWMA would like to provide members more time for internal review and recommend the item be forwarded to NCWM as an Informational Item.

At the 2012 Interim, the submitter explained that the proposal allows for alignment with the international definitions. There is concern that the international language does not conform to existing language in HB 130. The language appears to be too complicated and could cause misinterpretation. The Committee is recommending that this language be returned to the submitter for formatting, and language review. They would like the submitter to share the document at the 2012 CWMA and NEWMA Annual meetings. The 2012 L&R Committee recommended

this item be considered as a Developing Item. At the 2012 NEWMA Annual Meeting, NEWMA supported this item and recommended that it be further developed.

At the 2012 CWMA Annual Meeting, a NIST Technical Advisor submitted modified definitions and provided additional background information.

Background of each definition (May 2012)

1.14. Calibration. – Justification to amend the definition:

This revision updates the current definition by clarifying that a calibration not only involves comparing indications of measuring instruments with corresponding values (and uncertainties) of measurement standards, but also involves using these comparisons in an “inverse” manner, in order to be able to assign a measured value and measurement uncertainty to an item being measured by the measuring instrument, based on the indication of the measuring instrument. By updating this definition, UWML will recognize that calibration involves a two-step process.

1.15. Metrological Traceability. – Justification to amend the definition:

This revision will update the current definition in four significant ways. First, in the 2008 VIM, “measurement result” means a value and an uncertainty (not just a value, as it meant in the 1993 VIM), so that traceability now applies to both the value and the uncertainty. Second, it is recognized that any acceptable “reference” can be used, and it doesn’t have to be a national or international standard. Third, the unbroken chain has to be documented, which wasn’t specified in the 1993 definition. And fourth, the chain is a chain of calibrations, and not just comparisons. This is to recognize that a comparison alone is not sufficient for traceability, since a comparison does not result in values being transferred along the chain (as a calibration does). Also, the term “Metrological” is added in front of “Traceability” in order to distinguish this type of traceability from other types (e.g., document traceability). By updating this definition, the UWML will be consistent with international practice, such as used in documents from the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) that pertain to accreditation requirements for (state) metrology laboratories (e.g., ISO/IEC 17025).

1.16. Measurement Uncertainty. – Justification to amend the definition:

This revision updates the current definition by first clarifying that a measurement uncertainty cannot be negative, and also by removing “that could reasonably be attributed,” which some people found to be confusing. The term “Measurement” was added in order to distinguish this type of uncertainty from other types. The advantage to updating this definition is that the revisions will bring it into agreement with the 2008 VIM definition.

1.19. Standard, Reference Measurement. – Justification to amend the definition:

This revision will update the current definition in two ways. First, it would no longer be required that a reference measurement standard be of the highest quality available (for example, it could be lower in a metrological traceability chain). Second, it is specified that a reference measurement standard is intended to be used for calibration of other measurement standards (as opposed to being used to make routine measurements). The term “Measurement” was added to the term in order to distinguish this type of reference standard from other types. Updating this definition will reflect current international agreement about reference measurement standards that is consistent with the 2008 VIM.

1.20. Standard, Working Measurement. – Justification to amend the definition:

This revision will update the current definition in two ways. First, a working standard would no longer be required to be directly calibrated by a reference standard (it could, for example, be calibrated by another working standard). Also, this revision will clarify that a working standard can be used for both calibration and

verification. The word “Measurement” was added in order to distinguish this type of standard from other types of working standards. By updating this definition, the UWML will reflect current international agreement about working measurement standards that is consistent with the 2008 VIM.

1.21. Metrological Traceability Chain. – Justification to add the following definition to the UWML:

This is a new definition for that is intended to support the revision to the definition of “metrological traceability” by explaining what is meant in the definition by “chain.” By adding this definition, the UWML will reflect current international agreement on traceability that is consistent with ISO and IEC documents that pertain to accreditation requirements for (state) metrology laboratories.

1.22. Metrological Traceability to a Measurement Unit. – Justification to add the following definition to the UWML:

This is a new definition that is intended to support the revision to the definition of “metrological traceability” by explaining what is meant by the expression “traceability to the SI”. For example, “(metrological) traceability to the SI” means metrological traceability to the definition of the measurement unit “kilogram” (kg) through the practical realization of the kg at NIST, obtained by calibration of a NIST mass artifact, having a mass of about 1 kg, against the international kilogram in Paris. By adding this definition to the UWML, it will reflect current international agreement on traceability that is consistent with ISO and IEC documents that pertain to accreditation requirements for (state) metrology laboratories.

The CWMA requested that the submitter of the proposal provide a presentation at the 2012 NCWM Annual Meeting that will brief the Conference on the changes and effects to each definition to help provide clarity.

At the 2012 NCWM Annual Meeting, Dr. Charles Ehrlich provided an update as to the purpose of this item. Dr. Ehrlich informed the Committee that he will provide a presentation at the 2013 NCWM Interim Meeting that will give further explanation for each definition. The L&R Committee recommended that the modified definitions provided at the CWMA Annual Meeting be considered. The L&R Committee agreed to modify the language submitted by Dr. Charles Ehrlich and that language is reflected under the Item Under Consideration.

231 NIST HANDBOOK 130 – UNIFORM PACKAGING AND LABELING REGULATION (UPLR)

231-1 I Sections 6.12. Supplementary Quantity Declarations and 6.14. Qualification of Declaration Prohibited

Source:

Central Weights and Measures Association (CWMA)

Purpose:

Provide clearer language to help guide industry and state officials when federal agencies are inconsistent in their interpretations, and this proposal provides better guidance.

Item Under Consideration:

6.12. 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,” **“equivalent,” “lasts the same as,”** or words of similar import).

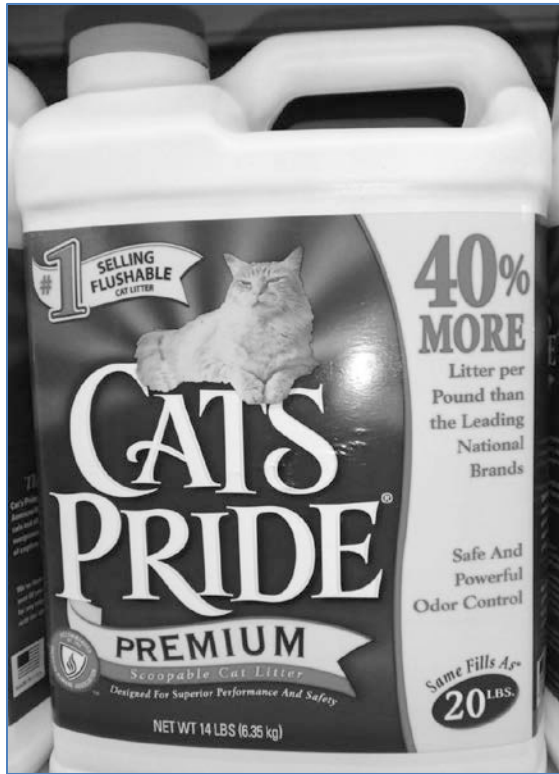
6.14. Qualification of Declaration Prohibited. – In no case shall any declaration of quantity be qualified by the addition of the words “when packed,” “minimum,” or “not less than,” **“equivalent,” or “lasts the same as,”** or any words of similar import (e.g., “approximately”), nor shall any unit of weight, measure, or count be qualified by any term (e.g., “jumbo,” “giant,” “full,” or the like) that tends to exaggerate the amount of commodity.

(Amended 1998 and **20XX**)

Background/Discussion:

Manufacturers are using the terms “equivalent” or “lasts the same as” to qualify net weight statements. Clearer language is needed to provide consumers with better information. Industries and state officials need better guidance for product labeling. Currently, the Federal Trade Commission (FTC) does not consider the terms “equivalent,” or “lasts the same as” exaggerated or misleading.

At the 2010 CWMA Interim Meeting, a state regulator presented an example of a label (refer to Appendix A in the *Report of the 96th NCWM* [SP 1125, 2011]) that was perceived as mislabeled. It was agreed that no conflicting information regarding the net weight statement should be in the lower one-third of the principal display panel (PDP). The CWMA forwarded this item to NCWM, recommending it move forward as a Voting Item.





At the 2011 NCWM Interim Meeting, it was reported that this language was lifted straight out of the Fair Packaging and Labeling Act (FPLA), and if modified, states could run into problems with their investigations. A NIST Technical Advisor stated that language “lasts the same as” or “equivalent” is in the marketplace, which may be misleading to consumers. The Committee was reminded that the lower 30 % of the principal display panel should be free of supplementary quantity declarations as specified in the UPLR, in Section 6.12. Supplementary Quantity Declarations.

The NIST Technical Advisor remarked that the section was amended in 1998 to include the term “approximately” (which is not included in the Federal Regulations) as a prohibited term. There has been no indication that the differences between the UPLR and Federal Regulations are being challenged. It was also recommended that FTC be notified that this is an issue before the Conference. The Committee recommends that the item under consideration be an Informational Item.

At the 2011 NEWMA Annual Meeting, there was a recommendation to obtain additional data from the submitter of the proposal along with clarification from the Federal Trade Commission on their letter dated November 4, 2010. No additional comments were heard on this item. The NEWMA L&R Committee recommended that this item be Informational.

At the 2011 CWMA Annual Meeting, the submitter of the proposal commented that the terms “last the same as” and “equivalent to” are not quantity statements and should not be in the net quantity of the principle display panel area. The CWMA L&R Committee finds that this will be helpful for enforcement issues and recommended that this item be Informational.

At the 2011 NCWM National Meeting, there were no comments heard on this item. The Committee received a letter from Clorox, stating the term “lasts the same as” is being removed from their packaging. The Committee would like to receive additional input from the fall 2011 regional meetings on this item.

At the 2011 CWMA Interim Meeting, several state regulators voiced support of the item and want clear cut guidelines for enforcement. Additionally, regulators would like to see the FTC follow suit in federal law. One state

regulator recommended that the item be referred to the Package and Labeling Subcommittee (PALS). The CWMA supports this item and recommends moving it forward as a Voting Item with no language changes.

At the 2011 WWMA Annual Meeting, there were no comments. The WWMA concurs with the FTC findings that the terms are not misleading. The added terms are deemed a quality statement rather than a quantity statement. WWMA recommended that the item be Withdrawn.

At the 2011 NEWMA Interim Meeting, no comments were made and the Committee maintained a neutral position. NEWMA recommended that the item remain as an Informational Item.

At the 2011 SWMA Annual Meeting, there were no comments heard from the floor. The SWMA L&R Committee supports the proposal as written and recommends the item move forward as a Voting Item.

At the 2012 NCWM Interim Meeting, an industry representative commented that exaggerated and misleading terms need to be addressed. He contends that in the marketplace it is becoming commonplace to see supplemental information appearing on the front of the principal display panel (PDP). Mr. Guay, PALS Chair, is recommending the PALS Committee develops this item to provide additional guidance. The 2012 L&R Committee is recommending that this item be Informational and assigned to PALS for further development.

At the 2012 NEWMA and the CWMA Annual Meetings, both regions supported the development of this item through the PALS. At the CWMA Meeting, Mr. Guay remarked that the PALS has just been formed and have not had an opportunity to meet. However, during the 2012 NCWM Annual Meeting, he provided an update in which he stated this item had been reviewed by the Subcommittee. PALS is planning to provide the NCWM L&R Committee with governing principles regarding claims on packages, and to develop a series of recommendations regarding best practices for these types of label statements.

Additional letters, presentations and data may have been part of the Committee's consideration. Please refer to Appendix A in the *Report of the 96th Annual NCWM Conference* [SP1125, 2011] to review supporting documentation.

231-2 I Section 10.3. Aerosols and Similar Pressurized Containers

Source:

Commonwealth of Massachusetts Division of Standards (2012)

Purpose:

To allow the quantity statement in terms of weight for packages utilizing the Bag on Valve (BOV) technology, where the propellant is not expelled when the valve is activated. NIST HB 130, Uniform Packaging and Labeling Regulations, Section 10.3. Aerosols and Similar Pressurized Containers require aerosols and similar pressurized containers that expel the propellant along with the product to disclose the net quantity in terms of weight.

Item Under Consideration:

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.

10.3.1. Products labeled non Aerosols in Similar Pressurized Containers (bag on valve [BOV] does not expel propellant with product). – **The declaration of quantity shall disclose the net quantity of the commodity in terms of fluid measure.**

Background/Discussion:

There are a number of products currently in the marketplace bearing quantity statements in terms of fluid measure that utilize the BOV technology. Value comparison of these products which are non-aerosol by definition because the propellant is not dispensed with the product is not possible, as the products using the BOV technology cannot be

compared with the traditional aerosol packaged product because the propellant is included in the net weight and is dispensed with the product. In the example below, two similar products are pictured; however, the one on the right is labeled by net weight and the one on the left is labeled by liquid measure.



BOV technology is environmentally friendlier because the propellant is not dispensed with the product. Products utilizing the BOV technology only expel the product as the product is contained in a bag which is surrounded by the propellant inside the container. In April 2011, NIST, OWM received a letter supporting labeling of certain products such as the “Pure Citrus” product pictured above by liquid measure.

At the 2011 CWMA Interim Meeting, the CWMA agreed that the proposal did not include a specific recommendation for the language for the amendment to NIST Handbook 130, Uniform Packaging and Labeling Regulations, Section 10.3., Aerosols and Similar Pressurized Containers and recommended that the item be returned to the submitter for Development.

At the 2011 WWMA Annual Meeting, a comment from industry stated there are currently products in the marketplace that are similar but delivered in a different fashion. This should be looked at to account for new technology in the marketplace. Ms. Lisa Warfield, the NIST Technical Advisor read from the 2011 *NEWMA Annual Report* that recommends that the words “non-aerosol” be printed on the label so that inspectors know to test by fluid measure. The Committee believes there may be some confusion to the different unit pricing units but that consumers will be able to determine that there is new technology to expel the product. BOV technology currently exists in the marketplace and a proper method of sale is needed. The WWMA Committee recommends forwarding this item to NCWM as a Voting Item with the language modifications reflected below:

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.

10.3.1. Products labeled non Aerosols in Similar Pressurized Containers (bag on valve [BOV] does not expel propellant with product). – **The declaration of quantity shall disclose the net quantity of the commodity in terms of fluid measure.**

After the recommendation, additional comments were accepted. A county official was troubled with the wording “non-aerosol” and thought the intent of the proposal was to allow people to comparison shop between aerosols and non-aerosols. A county official stated the product could be measured by the liquid. A retired NIST, OWM employee questioned how it was measured. A county official wanted to know whether the entire product was expelled when empty. A county official stated that this was not ready for status as a Voting Item. The WWMA L&R Committee met briefly and decided to change the recommendation to a Developing Item.

At the 2011 NEWMA Interim Meeting, it was stated that testing for content could be problematic and that marking on the package should be net weight of product only, not including propellant which is not part of product. The Committee believes there is better comparison of net contents of product being sold if words “NON-AEROSOL PRODUCT” are added to product label. The recommendation is to move the item to a Voting Item with the following revision to add to the container language “A NON-AEROSOL” product.

At the 2011 SWMA Annual Meeting, concern was expressed by an industry weights and measures consultant over an acceptable test procedure that would be used if volume was permitted. The NIST Technical Advisor noted that no specific language has been proposed and that UPLR Section 6.4., Terms: Weight, Measures, Volume, or Count declares that “any net content statement that does not permit price and quantity comparison is forbidden.” It was further noted that NIST Handbook 130, Section 10.3. Aerosols and Similar Pressurized Containers apply to aerosols and similar pressurized containers. One manufacturer has provided input to this proposal. The National Aerosol Association (NAA) has been contacted for input into this proposal. Preliminary comment by NAA is that BOV technology or versions of it has been around since the 1990s. The NAA board member believes BOV technology is considered an aerosol, basing his opinion on a California Air Resources Board Regulation. The SWMA Committee requested that specific language be developed for this item and a complete response from the NAA. They also noted that test procedures will need to be discussed if a volume statement is to be considered. SWMA forwarded the item to NCWM, recommending it as a Developing Item.

At the 2012 NCWM Interim Meeting, the NCWM L&R Committee reviewed several letters from different manufacturers that utilize the BOV technology in which they recommended the appropriate method of sale for BOV style packaging to be volume. Concern was expressed that consumers would not be able to make value comparisons if similar items had different units of measure.

A presentation provided by Mr. Paul Van Slyke with Lock Lord Bissell & Liddell LLP/Blue Magic, Inc., indicated they believe that BOV does not fall under the aerosol guidelines. The reasoning is that a BOV container does not expel propellant with the product and, therefore, it inherently has less net weight. They believe that consumers do not have sufficient information to know differences between aerosols and BOV products. Mr. Van Slyke recommended two solutions amending the UPLR language as follows:

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, **provided however that containers that separate propellant from the expelled product so that propellant is not expelled (such as containers using bag-on-valve technology) may be labeled either with weight or volume of the quantity of the commodity that will be expelled.**

or

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.

10.3.1. Containers that separate propellant from the expelled product so that the propellant is not expelled (such as containers using bag-on-valve technology) shall be prominently labeled NON-AEROSOL. The declaration of quantity shall disclose the net quantity of the commodity in terms of fluid measure.

Mr. Doug Raymond, National Aerosol Association (NAA) gave a presentation in which he reported his association’s position is that a container using BOV technology is an aerosol and its net quantity needs to be declared in terms of net weight. He remarked that bag on valve technology (BOV) has been around for twenty plus years and is not new to the marketplace. Various products are packaged using the bag on valve (BOV) technology (e.g., sunscreen, wound washes, shaving cream, and car products). Different aerosol forms use liquid gas, compressed gases and in barrier forms using Sepro, bladder, and BOV. Mr. Raymond also stated that BOV and non-BOV products are designed to expel their products equally. He also claimed that classifying a BOV container as a non-aerosol is misleading and a safety concern since this product is pressurized.

A county regulator agreed that BOV containers should be labeled and tested by net weight. He remarked that test procedures need to be clarified for BOV containers. For example, should the bag be removed from the canister to recover the product?

Concern was also expressed that consumers would be confused if they encountered similar products with different unit pricing and if the products contents are labeled differently. The BOV proposal that was represented during the 2012 NCWM Interim Meeting was based upon the views of the room air fresheners industry only.

The Committee would like to have a better understanding of the variety and type of products in the marketplace and what is under current development. Clarification is needed for the term “similar products” (i.e., what products meet this classification as defined in NIST Handbook 130, UPLR, Section 10.3. Aerosols and Similar Pressurized Containers). The Committee is also requesting from NIST, OWM clarification on the definition of aerosol and a review for any updates to NIST Handbook 130, Interpretations and Guidelines, Section 2.2.7. Aerosol Packaged Products. The Committee made this an Informational Item.

At the 2012 NEWMA Annual Meeting, it was discussed that there is a conflict with the declaration of content labels in the marketplace between aerosols and bag on valve (BOV) products.

At the 2012 CWMA Annual Meeting, a NIST Technical Advisor stated that the FDA compliance department is reviewing their regulations to see if there is a conflict. NIST has been in contact with the National Aerosol Association, and they will have a representative at the 2012 NCWM Annual Meeting.

At the 2012 NCWM Annual Meeting, Mr. Douglas Raymond, representing the National Aerosol Association, reported that the association is currently working with marketers, companies, and other trade associations, and NAA will provide an update on their position on this item at the 2013 NCWM Interim Meeting. The Committee received and reviewed five letters on this matter.

Additional letters, presentations and data may have been part of the Committee’s consideration. To review the supporting documentation, please refer to Appendix B in the *Report of the 96th Annual NCWM Conference* (SP1125, 2011) and Appendix A in this document for additional content.

231-3 V Section 10.11. Statements of Cubic Measure in Compressed Form

(This item was adopted.)

Source:

American Wood Fibers (2012)

Purpose:

Disallow pre-compression volume statements on packages of compressed animal bedding.

Item Under Consideration:

Amend NIST Handbook 130, Packaging and Labeling Regulation, Section 10.11. Statements of Cubic Measures in Compressed Form. Delete Section 10.11. in its entirety:

Delete Section 10.11. in its entirety:

~~**10.11. Statements of Cubic Measure in Compressed Form. When the content declaration on a commodity sold in compressed form is stated in terms of cubic measure, an additional statement may indicate the amount of material from which the final product was compressed. The amount in such statement shall not exceed the actual amount of material that can be recovered.**~~

~~**(Added 1993)**~~

Background/Discussion:

Pre-compression volume statements for compressed animal bedding do not provide consumers with information with which to make fair comparisons of similar products, and may be considered deceptive, since the pre-compressed volume cannot be verified and the usable recovered volume is smaller than the pre-compressed volume.

There is no way for inspectors to field test the pre-compression statement. Pre-compression statements are not in keeping with NIST Handbook 130, Package and Labeling Regulation, 6.14. Qualification of Declaration Prohibited that states, "In no case shall any declaration of quantity be qualified by the addition of the words 'when packed'."

At the 2011 SWMA Annual Meeting, an industry representative stated that declaring a pre-compressed volume is potentially deceptive, and that consumers and inspectors cannot verify. The SWMA L&R Committee believes if pre-compressed volume cannot be verified it should not be stated on packages. SWMA forwarded the item to NCWM, recommending it as a Voting Item.

At the 2012 NCWM Interim Meeting, the Committee reviewed the entire submitted proposal which included modifications to Method of Sale Regulation, Section 2.23. Animal Bedding (refer to Item 232-3). The Committee agreed to move this item forward for a Voting Item.

At the 2012 NEWMA Annual Meeting, no comments were received on this item. The NEWMA recommends this item be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 CWMA Annual Meeting, a state regulator remarked that allowing a third declaration of pre-compressed volume confuses the consumer and a pre-compressed volume statement is not relevant to the usable volume.

At the 2012 NCWM Annual Meeting, a county regulator commented that having a pre-compressed statement is meaningless and supports a proposal to prohibit a declaration of pre-compressed volume statement on animal bedding.

232 NIST HANDBOOK 130 – UNIFORM REGULATION FOR THE METHOD OF SALE

232-1 V Section 2.13.4. Declaration of Weight

(This item was adopted.)

Source: Western Weights and Measures Association (2010)

Purpose:

Update HB 130, Section 2.13.4. Declaration of Weight to provide new density values for heavier density plastics that is currently in the marketplace.

Item under Consideration:

Amend NIST Handbook 130, Method of Sale Regulation, Section 2.13.4. Declaration of Weight as follows:

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

For SI dimensions:

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

M = net mass in kilograms

T = nominal thickness in centimeters

A = nominal length in centimeters times nominal width ^[NOTE 6, page 122] in centimeters

D = minimum density in grams per cubic centimeter as ~~determined~~ **defined** by ASTM Standard D1505 ~~40~~, “Standard Test Method for Density of Plastics by the Density-Gradient Technique” (2010 or latest issue) **and ASTM Standard D883, “Standard Terminology Relating to Plastics” (2011 or latest issue).**

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

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

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

For inch-pound dimensions:

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

W = net weight in pounds;

T = nominal thickness in inches;

A = nominal length in inches times nominal width [NOTE 6, page 123] in inches;

D = minimum density in grams per cubic centimeter as ~~determined~~ **defined** by ASTM Standard D1505 ~~68~~, Standard ~~Test~~ **Method of Test** for Density of Plastics by the Density Gradient Technique (2010 or latest issue); **and ASTM Standard D883, “Standard Terminology Relating to Plastics” (2011 or latest issue); and**

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

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

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

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

(Added 1977) (Amended 1980, 1982, 1987, 1989, 1990, ~~and~~ 1993, **and 20XX**)

NOTE 6: The nominal width for bags in this calculation is twice the labeled width.

Background/Discussion:

It was stated at the 2009 WWMA Annual Meeting that manufacturers and distributors of polyethylene bags are using the calculated target weight identified in NIST Handbook 130, Uniform Regulation for the Method of Sale, Section 2.13.4. Declaration of Weights, to understate the net quantity of their labels. The polyethylene industry recognizes a density value of 0.92 g/cm^3 for linear low density polyethylene (LLDP) products. When 0.92 g/cm^3 is used to calculate the target net weight of high density polyethylene (HDPE), the product may make the target net weight. However, when the appropriate density value of 0.95 g/cm^3 is used to test HDPE, the product often fails to meet the calculated target net weight. Further testing reveals that one or more of the labeled width, thickness, or count statements are inaccurate. It appears that some manufacturers are aware that weights and measures officials are restricted to testing HDPE product using the 0.92 g/cm^3 value, because the actual density value is not stated on the product label. Existing procedural guidelines do not address HDPE materials. When testing at manufacturing

locations, weights and measures officials are able to obtain information regarding the density of the product directly from the manufacturer. However, at distributor locations density information is not available and officials must test using the 0.92 g/cm³ value designated in NIST Handbooks 130 and 133 to verify the weight of the product. When the product has no net weight statement on the package, 0.92 g/cm³ is the only factor that the inspector may use to calculate the target net weight.

Initial proposal submitted in 2009:

Amend NIST Handbook 130, Method of Sale Regulation, Section 2.13.4. as follows:

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

For SI dimensions:

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

- M = net mass in kilograms
- T = nominal thickness in centimeters
- A = nominal length in centimeters times nominal width ^[NOTE 6, page 122] in centimeters
- 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)

For the purpose of this regulation, when D is not labeled on the package, ~~known~~, the minimum density (D) used to calculate the target net weight for linear low density polyethylene products (LLPD) and products other than high density (HDPE) shall be 0.92 g/cm³ (~~when D is not known~~). For products labeled High Density (HDPE) or similar wording, which does not specify the minimum density (D) on the package label, the minimum density (D) used to calculate the target net weight shall be 0.95 g/cm³.

For inch-pound dimensions:

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

- W = net weight in pounds;
- T = nominal thickness in inches;
- A = nominal length in inches times nominal width ^[NOTE 6, page 122] 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 1977) (Amended 1980, 1982, 1987, 1989, 1990, ~~and~~ 1993, and 201X)

NOTE 6: The nominal width for bags in this calculation is twice the labeled width.

The 2009 WWMA Annual Meeting, the Committee supported the following with changes as presented below. WWMA forwarded the item as amended to NCWM, recommending it be a Voting Item:

2.13.4. Declaration of Weight. – The labeled statement ...

~~For the purpose of this regulation, the minimum density shall be 0.92 g/cm³ (when D is not known).~~
~~For the purpose of this regulation, the minimum density shall be 0.92 g/cm³.~~

Amend NIST Handbook 130, Section 2.13.4. Declaration of Weight as follows:

For the purpose of this regulation, when D is not known, the minimum density **(D)** used to calculate the **target net weight for linear low polyethylene products (LLDP) and products other than high density (HDPE)** shall be 0.92 g/cm³ ~~(when D is not known)~~. **For products labeled “High Density.” HDPE, or similar wording, the minimum density (D) used to calculate the target net weight shall be 0.95 g/cm³.**

The 2009 NEWMA Interim Meeting, the Committee forwarded the item to NCWM, with the recommendation that it be a Developing Item.

At the 2010 NCWM Interim Meeting, the Committee heard support for changing the density factor from 0.92 g/cm³ to 0.95 g/cm³ on this item. A county commissioner (California) indicated that the information provided by the WWMA was data extracted from Internet searches. Manufacturers are complaining that under current practice they cannot compete fairly. Mr. Jackelen urged the Committee to reject this proposal. Mr. Jackelen stated that 0.92 g/cm³ density currently works for manufacturers and changing it to 0.95 g/cm³ will cause undue cost and waste. Most manufacturers do not make high density (HD) bags, but are producing blends. According to Mr. Jackelen, another reason to reject the proposal is if the 0.95 g/cm³ bag is punctured, it continues to tear.

A state official commented that if you use the term HD, then you are bound by the 0.95 g/cm³. If you use the length × width × thickness × density to determine the net weight, then the density value needs to be added on the package labeling. A state official said that manufacturers should consider disclosing the density factor on every product as part of the labeling. It was voiced that if there are questions about an absolute 0.95 g/cm³ density, then there should be an alternative. Another state official commented that the 0.95 g/cm³ will be factored in only when the density is not known. The Committee received letters that were reviewed on this item. The Committee recommended moving the item under consideration forward as a Voting Item.

At the 2010 NEWMA Annual Meeting, there was concern that there appears to be a lack of data on this item. It was not reviewed by all regions, nor was it presented to industry to seek comments. The NEWMA L&R Committee felt that this item was not an emergency and wanted the opportunity to review comments received from all the regions and industry.

At the 2010 CWMA Annual Meeting, the CWMA heard no comments on this item and recommends moving it forward as a Voting Item.

At the 2010 NCWM Annual Meeting, the Committee heard from Mr. Jackelen who opposed this item and requested that it be Withdrawn. Mr. Jackelen believes this proposal will have a detrimental effect because can liners are made of natural gas and oil and the cost of these two items are increasing. Currently, the 0.92 g/cm³ is an established practice in industry and the marketplace, and is used to set the bottom weight. Changing this density will cause confusion. Mr. Jackelen clarified that high density (HD) does not mean it is a better density. There are other linear bags that have higher quality than HD. As far as sustainability, if 0.95 g/cm³ is the established requirement it will cause an additional 12 million pounds of trash to be generated.

An official countered that the intent of this proposal is to provide the inspectors with information. There is fraud in the marketplace on these types of items and additional information is warranted. A director recommends that a minor amendment be done to the item under consideration, and insert “for products labeled HD when the D is not on the package label use 0.95 g/cm³.” Also, use a similar statement “if the packer or manufacturer does not disclose the density then use 0.95 g/cm³.” The director pointed out that it is not the role of the Conference to address quality issues, but to have a level playing field for inspectors to test a product. Another official remarked that companies need to identify their product on the container, and inspectors will use what density is disclosed.

The Committee received one letter asking for the withdrawal of this item, and California submitted material safety data sheets from several companies. The Committee considered comments received and agreed that more work was needed so the item was changed to an Informational status.

At the 2010 CWMA Interim Meeting, there were no comments heard on this item. The CWMA recommends that this item remain an Informational Item.

At the 2010 WWMA Annual Meeting, a state official commented that 10 companies have filed complaints concerning products being mislabeled, where the density was unknown. A state official submitted new language to replace a portion of language within the item under consideration. Two county officials spoke in support of the amended item, which would assist weights and measures officials in the field. A county official submitted a letter of support. The WWMA recommends that the amended language move forward as a Voting Item as amended with the SI dimensions included.

Amend NIST Handbook 130, Section 2.13.4. Declaration of Weight as follows:

For the purpose of this regulation, **when D is not labeled on the package, known,** the minimum density (**D**) **used to calculate the target net weight for linear low density polyethylene products (LLPD) and products other than high density (HDPE)** shall be 0.92 g/cm^3 ~~(when D is not known)~~. **For products labeled High Density (HDPE) or similar wording, which does not specify the minimum density (D) on the package label, the minimum density (D) used to calculate the target net weight shall be 0.95 g/cm^3 .**

At the 2010 SWMA Annual Meeting, there were no comments heard on this item. The SWMA would like to seek additional comments from industry, other than material safety data sheets. The SWMA recommends that the item move forward as an Informational item.

At the 2010 NEWMA Interim Meeting held in Norwich, Connecticut, they noted that this proposal is confusing and that additional work needs to be done to clarify the impact of the proposed changes on manufacturers and consumers. The NEWMA recommends this move forward as a Developing item.

At the 2011 NCWM Interim Meeting, Mr. Jackelen restated that this item, as written, will have a detrimental effect on the industry due to the high cost of plastics. Mr. Jackelen further explained that high density plastics are of higher quality, but are of a thinner gauge which subjects it to tearing. A state regulator stated that the WWMA recommended a change to the language for specifying that only when the density is not known or not labeled then the 0.95 g/cm^3 would apply.

The Committee agreed that adding a requirement, which gives the manufacturer the option of providing the actual density of the plastic provides flexibility for industry and will assist weights and measures officials to ensure the accuracy of quantity declarations. The Committee recommends the revised language under consideration from the WWMA move forward as a Voting Item.

At the 2011 NEWMA and the CWMA Annual Meetings, there were no comments heard on this item. Both associations recommended this item be a Voting Item.

At the 2011 NCWM Annual Meeting, it was noted that there is a corresponding test procedure proposal on the agenda under Item 260-2. Mr. Jackelen stated that if such a proposal passes it would have a detrimental effect on the plastics industry. This product is currently being made from oil and gas, both of which prices have skyrocketed. By adopting the 0.95 g/cm^3 density, an additional 12 million pounds of plastics would be added into the marketplace and ultimately landfills at current production rates. Current industry practice is 0.92 g/cm^3 for high density polyethylene. Introducing a change will only confuse the marketplace. A director spoke in support of this proposal saying it will give weights and measures officials a tool to check non-consumer packages. It was emphasized that "D" could be stated on the product, but, if not, officials need a density factor in order to conduct inspections. This director also reminded everyone that this issue is about accuracy and not quality. Another director expressed concern with the term "when D is not known." Currently 0.92 g/cm^3 is the lower density rating, when "D" is not known, the proposed language will allow industry to use densities lower than 0.92 g/cm^3 . A letter from industry was

received stating that 0.95 g/cm³ may not represent the density of HDPW currently in the marketplace. Industry indicated that 0.948 g/cm³ is a more accurate factor. The Committee believes that additional data from industry needs to be received on the density factors before proceeding with this item. The Committee returned this item back to Informational status.

At the 2011 CWMA and NEWMA Interim Meetings, both associations recommended keeping this item as an Informational Item based on testimony at the 2011 NCWM Annual Meeting.

At the 2011 WWMA Annual Meeting, Mr. Jackelen commented that he does not support this proposal. A state official commented that the formula for testing polyethylene is used to minimize destructive testing being performed, also serving to speed up the inspection process. A county official recommends that a subsection (E) "Density" be added to NIST Handbook 130, Method of Sale Regulation, Sections 2.13.1.1. Sheeting and Film and 2.13.3.1. Bags add a subsection (f) "Density." This will require manufacturers to place the density on the labeling.

The WWMA L&R Committee reviewed the ASTM definitions for high density, low density, and medium density. It was agreed that the use of the ASTM defined density would clarify the proposal. The WWMA L&R Committee took the existing language out of NIST Handbook 130 (2011) and edited as shown below. The WWMA recommends moving the item forward as a Vote as amended below:

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

For SI dimensions:

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

M = net mass in kilograms

T = nominal thickness in centimeters

A = nominal length in centimeters times nominal width [^{NOTE 6, page 123}] in centimeters

D = density in grams per cubic centimeter as **determined defined** by ASTM Standard ~~D1505-68, Standard Method of Test for Density of Plastics by the Density Gradient Technique D883 (2011), Standard Terminology Relating to Plastics~~ (or latest issue)

For the purpose of this regulation, the minimum density **for linear low density polyethylene plastics, (LLDPE)** shall be 0.92 g/cm³ (when D is not known).

For the purpose of this regulation, the minimum density for linear medium density polyethylene plastics, (LMDPE) shall be 0.93 g/cm³ (when D is not known).

For the purpose of this regulation, the minimum density for linear high density polyethylene plastics, (HDPE) shall be 0.94 g/cm³ (when D is not known).

For inch-pound dimensions:

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

W = net weight in pounds

T = nominal thickness in inches;

A = nominal length in inches times nominal width [^{NOTE 6, page 123}] in inches

D = density in grams per cubic centimeter as ~~determined~~ **defined** by ASTM Standard ~~D1505-68~~, ~~Standard Method of Test for Density of Plastics by the Density Gradient Technique D883 (2011), Standard Terminology Relating to Plastics~~ (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 **for linear low density polyethylene plastics, (LLDPE)** shall be 0.92 g/cm³ (when D is not known).

For the purpose of this regulation, the minimum density for linear medium density polyethylene plastics, (LMDPE) shall be 0.93 g/cm³ (when D is not known).

For the purpose of this regulation, the minimum density for linear high density polyethylene plastics, (HDPE) shall be 0.94 g/cm³ (when D is not known).

(Added 1977) (Amended 1980, 1982, 1987, 1989, 1990, ~~and~~ 1993, **and 20XX**)

NOTE 6: The nominal width for bags in this calculation is twice the labeled width.

At the 2011 SWMA Annual Meeting, no comments were heard. The SWMA supported the item as written pending clarification of high density. SWMA recommended the item move forward as a Voting Item.

At the 2012 NCWM Interim Meeting, the Committee reviewed OWM Publication 15 (2012) Item Under Consideration:

NIST Handbook 130, Method of Sale Regulation, Section 2.13.4.:

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

For SI dimensions:

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

M = net mass in kilograms

T = nominal thickness in centimeters

A = nominal length in centimeters times nominal width [^{NOTE 6, page 122}] in centimeters

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 (**2010** or latest issue)

For the purpose of this regulation, **when D is not known**, the minimum density **(D) used to calculate the target net weight for linear low polyethylene products (LLPD) and products other than high density (HDPE)** shall be 0.92 g/cm³ (~~when D is not known~~).

For products labeled High Density (HDPE) or similar wording, the minimum density (D) used to calculate the target net weight shall be 0.95 g/cm³.

For inch-pound dimensions:

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

W = net weight in pounds;

T = nominal thickness in inches;

A = nominal length in inches times nominal width [^{NOTE 6, page 123}] 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 (2010 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 1977) (Amended 1980, 1982, 1987, 1989, 1990, ~~and~~ 1993, and 20XX)

NOTE 6: The nominal width for bags in this calculation is twice the labeled width.

Mike Jackelen commented that the information he previously submitted letters to the Committee is still valid. He stated that if this item is passed it will have a detrimental effect on industry. Can liners are made from oil and gas which have drastically increased in price. Mr. Jackelen also spoke in regards to the 2011 WWMA language, and that the medium density is not being manufactured or used in the marketplace

An official urged that the Committee move the language from the 2011 WWMA forward as a Voting Item. The 2012 L&R Committee designated this item as a Voting Item using language received from the 2011 WWMA along with editorial privileges to add reference to ASTM D1505 and ASTM D883.

At the 2012 NEWMA Annual Meeting NEWMA received a comment on whether a 0.093 g/cm³ density resolves the issue. It was discussed that this allows the density to meet an ASTM standard. The NEWMA recommended that this item be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 CWMA Annual Meeting, the CWMA recommended this item be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 NCWM Annual Meeting, Mr. Jackelen with Berry Plastics opposed this item for several reasons; various blends that are made from natural resources; oil and gas, a 0.92 g/cm³ density sets the bottom limit, sustainability in creating waste and consumer confusion. Mr. Jackelen has submitted letters regarding his objections to the Committee, which are on record in the *Report of the 96th NCWM* (SP 1125, 2011). Several state and county regulators support this item since the formula for testing polyethylene is used to minimize destructive testing being performed; also, serving to speed up the inspection process.

After discussing the comments from the 2012 NCWM Annual Meeting Open Hearings and the proposed changes, the Committee agreed to modify the language in its interim report to that shown in this final report in the Item Under Consideration. This will provide densities that are representative of the actual densities use by manufacturers to improve the usability of the weight calculations. The Committee made two editorial changes to the item to align with the ASTM standard: 1) replace the term “products” with “plastics”; and 2) remove the word “linear” from the definition of high density polyethylene.

Additional letters, presentations and data may have been part of the Committee’s consideration. Please refer to Appendix I, *Report of the 95th NCWM* (SP 1115, 2010) and Appendix B in the *Report of the 96th NCWM* (SP 1125, 2011) for additional content.

232-2 V Section 2.19. Kerosene

(This item was adopted.)

Source:

Kansas Department of Agriculture (2012)

Purpose:

Establish a method of retail sale for bulk Kerosene.

Item Under Consideration:

Amend NIST Handbook 130, Method of Sale Regulation as follows:

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 ASTM International (ASTM) in Specification number D3699 (2008 or latest revision).

Example: 1K Kerosene; Kerosene - 2K.

(Added 1983)

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

(Added 2012)

Background/Discussion:

No method of sale regulation exists for kerosene except for labeling. Some individuals want to sell kerosene by weight which would frustrate price and quantity comparison. This proposal would better define the method of sale.

At the 2011 CWMA Interim Meeting, there were several comments from state regulators expressing concerns such as the lack of recognition of the metric unit, bulk sales, and reference temperatures for prepackaged containers and whether this is prohibitive of selling by weight. Kerosene is a dwindling market and the cost of a meter could be prohibitive. The preponderance of comments received indicates this item needs more development. THE CWMA did not forward the item to NCWM and recommended that the item be returned to submitter for development.

At the 2011 WWMA Annual Meeting, a comment was made that the metric equivalent needs to be stated. The WWMA forwarded this item to NCWM, recommending it as a Voting Item as it appears below.

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 ASTM International (ASTM) in Specification number D3699 (1982 or latest revision).

Example:

1K Kerosene; Kerosene - 2K.

(Added 1983)

2.19.1. All kerosene kept, offered, or exposed for sale and sold at retail shall be in terms of the gallon (as defined as 231 in³ at 60 °F [15.6 °C]).

At the 2011 NEWMA Interim Meeting, it was stated that sale of kerosene is by liquid measure rather than weight when dispensed from bulk. Method of sale should be consistent with other such liquid methods of sale (i.e., diesel and gasoline [including ethanol and biofuel] products). The NEWMA recommends making this a Developing Item.

At the 2011 SWMA Annual Meeting, no comments were heard and the SWMA recommends this as a Voting Item.

At the 2012 Interim Meeting, the submitter clarified that this is to define a method of sale for retail bulk kerosene. The Committee reviewed all language changes submitted by the regions. The 2012 L&R Committee made minor editorial corrections and is recommending that it move forward as a Voting Item.

At the 2012 NEWMA Annual Meeting, the NEWMA recommends this item be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 CWMA Annual Meeting, a representative stated that kerosene is a liquid and must be sold by volume. A state representative remarked there are small retailers that are selling by weight, and it would be an unnecessary hardship for them to purchase equipment to sell by volume. Three state representatives rose to oppose this item during the open hearings. THE CWMA recommends this item be considered as a Voting Item at the 2012 NCWM Annual Meeting.

At the 2012 NCWM Annual Meeting no comments were received on this item.

232-3 V Section 2.23. Animal Bedding

(This item was adopted.)

Source:

American Wood Fibers (2012)

Purpose:

Disallow pre-compression volume statements on packages of compressed animal bedding.

Item Under Consideration:

Amend NIST Handbook 130, Uniform Regulation for Method of Sale, Section 2.23. Animal Bedding as follows:

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, liter, or milliliter and by the 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. **Compressed animal bedding packages shall not include pre-compression volume statements.**

Example:

250 mL expands to 500 mL (500 in³ expands to 1000 in³).

(Added 1990, **Amended 2012**)

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

(Added 2010)

Background/Discussion:

1. Pre-compression volume statements for compressed animal bedding do not provide consumers with information with which to make fair comparisons of similar products, and may be considered deceptive, since the pre-compressed volume cannot be verified and the usable recovered volume is smaller than the pre-compressed volume.
2. There is no way for inspectors to field test the pre-compression statement.
3. Pre-compression statements are not in keeping with Package and Labeling Regulation, Section 6.14. Qualification of Declaration Prohibited which states, “In no case shall any declaration of quantity be qualified by the addition of the words ‘when packed,’”

At the 2011 SWMA Annual Meeting an industry representative stated that declaring a pre-compressed volume is potentially deceptive, and that consumers and inspectors cannot verify it. The SWMA L&R Committee agreed that pre-compressed volume should not be stated on packages if it cannot be verified. SWMA forwarded the item to NCWM with the recommendation that it be considered as a Voting Item.

At the 2012 NCWM Interim Meeting, the Committee reviewed the submitted proposal, which included removal of the UPLR, Section 10.11. Statement of Cubic Measure in Compressed Form (refer to Item 231-3, Section 10.11. Statements of Cubic Measures in Compressed Form). The 2012 L&R Committee designated this item as a Voting Item with minor editorial revisions.

At the 2012 NEWMA Annual Meeting there were no comments heard on this item. NEWMA recommends this item be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 CWMA Annual Meeting, it was remarked that required quantity statements are compressed and useable volume. Allowing a third declaration of pre-compressed volume only confuses the consumers and is not relevant to the usable volume. The CWMA recommends this item to be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 NCWM Annual Meeting a county director spoke in support of this item. There were no comments received in opposition of this item.

The Committee agreed that pre-compressed volume should not be stated on packages if it cannot be verified. SWMA forwarded the item to NCWM with the recommendation that it be considered as a Voting Item.

232-4 V Section 2.33. Vehicle Motor Oil

(This item was adopted.)

Source:

Central Weights and Measures Association (2011)

Purpose:

Provide a method of sale regulation for vehicle motor oil that would correspond with the NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation and require detailed invoicing requirements.

Item Under Consideration:

Provide specific language for Labeling of Vehicle Motor Oil in NIST Handbook 130, Method of Sale Regulation as follows:

2.33. Oil.

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

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

2.33.1.2. Intended Use. – The label on any vehicle engine (motor) oil container shall contain a statement of its intended use in accordance with the latest version of SAE J183, “Engine Oil Performance and Engine Service Classification (Other than ‘Energy Conserving’).”

2.33.1.3. Brand. – The label on any vehicle engine (motor) oil container and the invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) oil

dispensed from a receptacle, dispenser, or storage tank shall contain the name, brand, trademark, or trade name of the vehicle engine (motor) oil.

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

2.33.1.4.1. Inactive or Obsolete Service Categories. – The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, whenever the vehicle engine (motor) oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAE J183, “Engine Oil Performance and Engine Service Classification (Other than ‘Energy Conserving’).”

2.33.1.4.25. Tank Trucks or Rail Cars. – Tank trucks, rail cars, ~~or~~ and other types of delivery trucks that are used to deliver vehicle engine (motor) oil are not required to display the SAE viscosity grade and service category or categories as long as the bill of lading or other documentation provides that information.

All references to invoice or receipt will be enforceable effective on July 1, 2013.

(Added 2012)

Background/Discussion:

At the 2010 CWMA Interim Meeting, a state regulator stated that oil changing facilities are affecting revenues from legitimate businesses by masquerading as branded facilities, while selling lower-quality oil. The consumer believes they are receiving the advertised brand of oil. At least one branded oil company has investigated certain questionable installers, filed lawsuits, and have successfully closed those suits with installers in the area of trademark infringement and deceptive trade practices. To assist in mitigating these unlawful trade practices and to protect consumers against fraudulent activity, it is recommended that invoice be established. A state regulator questioned if businesses were using the same hose for hydraulic and motor oil, or if the hose would be flushed prior to using it for a different product. He remarked that there would be a contamination factor. The CWMA recommends that the item under consideration move forward to NCWM L&R Committee for consideration.

At the 2011 NCWM Interim Meeting, it was pointed out that if Item 237-6, NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation, Section 3.13.1. Labeling of Vehicle Motor Oil was adopted by the Conference it would require a corresponding method of sale. It was also noted that this method of sale is important to consumers and stakeholders because not all of the states adopt the Engine Fuels and Lubricants Regulation. The Committee recommends this item move forward as a Voting Item.

2.33. Oil.

2.33.1. Labeling of Vehicle Motor Oil.

2.33.1.1. Viscosity. – The label on a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the viscosity grade classification preceded by the letters “SAE” in accordance with the SAE International’s latest version of SAE J300.

2.33.1.2. Intended Use. – The label on a vehicle motor oil container shall contain a statement of its intended use in accordance with the latest version of SAE J183.

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

2.33.1.4. Engine Service Category. – The label on a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the engine service category, or categories, met in letters not less than 3.18 mm ($\frac{1}{8}$ in) in height, as defined by the latest version of SAE J183 or API Publication 1509, “Engine Oil Licensing and Certification System.”

2.33.1.4.1. Inactive or Obsolete Service Categories. – The label on a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, whenever the vehicle motor oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAE J183.

2.33.1.4.2. Tank Trucks or Rail Cars. – Tank trucks, rail cars, or other types of delivery trucks that are used to deliver vehicle motor oil are not required to display the SAE viscosity grade and service category or categories as long as the bill of lading or other documentation provides that information.

(Added 201X)

At the 2011 NEWMA Annual Meeting, membership reviewed the proposal under the background/discussion, and it was noted that the title to the SAE and API standard would be noted. It was also noted to change the word “motor” to “engine.” A representative from API did not object to these changes. The NEWMA recommended that this item move forward as a Voting Item.

At the 2011 CWMA Annual Meeting there was support from API and a state representative. The CWMA L&R Committee recommended that this item move forward as a Voting Item.

At the 2011 NCWM Annual Meeting, the Committee was asked whether it is appropriate for Section 2.33.1.3. Brand to be included in this proposal. American Petroleum Institute (API) and some state regulators agree that this section is important for traceability purposes. The API representative stated that bulk oils are the weak link in the property chain. API does have a licensing program for engine oil, but without knowing the brand name, it would be hard to determine compliance with any specifications. A state representative expressed concern with the cost and training for testing the “brand.” There is concern that some car manufacturers will void a warranty unless a specific brand is used. The FALS Chairperson supports this proposal so that producers can guarantee their product and enforce mislabeling. The FALS group believes this item has unanimous support. The Committee noted that the SAE and API standards technical title would be editorially placed in the proposal. The Committee was also asked to consider changing the term “motor” to “engine,” but after a discussion with the Fuels and Lubricants Subcommittee Chair, it was recommended to keep the term “motor.” The Committee added the words “or receipt” after the word “invoice” throughout this proposal. The Committee also believes that time needs to be granted for the implementation of this regulation so the words, “All references to invoice or receipt will be enforceable effective on July 1, 2012,” were added to the proposal. The FALS and L&R Committee received a letter from the Independent Lubricant Manufacturers Association (ILMA) in support of this and a corresponding proposal Item 237-4 (refer to Appendix B.) During the voting session, a state regulator agreed that brand helps with traceability, but he believes the labeling requirement should be limited to specification. Several states stated they would support this item only if Section 2.33.1.3. Brand was removed from the proposal. On a split vote, the item was returned to the Committee.

At the 2011 CWMA Interim Meeting and the 2011 WWMA Annual Meeting, Mr. Ferrick, gave a presentation outlining why brands must be addressed. Not all oil is the same; brands differ. Mr. Ferrick made it clear that this language was not being introduced to require states to test brands, but to allow API to address the chain of custody issues and effectively monitor bulk products. One state regulator supports moving this item forward as a Voting Item and stated that branding is not new as it is mentioned throughout NIST Handbook 130. Additionally, under the model law for Engine Fuels and Automotive Lubricants Inspection, it is unlawful to misrepresent brand in addition to other items. Further, in the Uniform Engine Fuels and Automotive Lubricants Regulation, Section 3.14.1. Labeling related to automatic transmission fluid requires “the brand name” on each container. The CWMA believed there was overwhelming evidence for the use of “brand” in NIST Handbook 130 and recommends moving this item forward as a Voting Item.

At the 2011 WWMA Annual Meeting, a presentation by Mr. Ferrick, served to clarify the issue of branding. API offered their assistance to the states regarding the testing of branding. There was concern regarding the bulk containers and comingling of product, state budgetary issues and the outlook of the future of API assistance, and enforcement of branding. A county official questioned the enforcement capability of API and suggested that language be developed that stipulates that API will enforce violations. There was support from the Western Petroleum Marketers Association and a state regulator. The WWMA recommends moving the item forward as a Voting Item with an editorial change to the effective date statement to read, “All references to invoice or receipts will be enforceable effective on July 1, 2013.”

At the 2011 NEWMA Interim Meeting, questions were raised regarding “off brand” selling where brand is thought to be present. Mr. Ferrick commented that API can test at a particular facility if it is API licensed. NEWMA recommends moving this to a Voting Item.

At the 2011 SWMA Annual Meeting, Mr. Ferrick, gave a presentation in support of this item and stated the API also supports Item 237-6. API routinely samples product in the marketplace to ensure it meets their standards. API has to know the brand when testing in order to act on enforcement to protect consumers. Mr. Ferrick recommended a July 2013 implementation date if adopted. A NIST Technical Advisor stated that in the Engine Fuels and Automotive Fuels Regulation, Section 3.14. Automatic Transmission Fluid it requires brand to be stated on the label, and within Section 6. Product Registration requires that the brand be stated for “engine fuel designed for special use.” A retired official noted that in NIST Handbook 44 effective dates for non-retroactive requirements are always the first of the year. Information from the floor supported that brands and quality are linked. The SWMA recommends placing the item as a Voting Item with a July 2013 implementation date.

At the 2012 NCWM Interim Meeting, the FALS Chairperson remarked that FALS fully supported this item. Mr. Ferrick, recommended that this item move forward as a Voting Item with an enforcement date of July 2013 with reference to invoice and receipt requirements. Mr. Ferrick is to provide guidance at all the regional meetings on the process to have brand tested in the event of a complaint. The L&R Committee recommends that a modification be made to the enforcement date to read July 2013 related to invoice and receipt requirements, and move this forward as a Voting item.

At the 2012 NEWMA Annual Meeting, Mr. Ferrick presented a review of this item to the members and indicated his support for this item. NEWMA recommends this item be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 CWMA Annual Meeting, Mr. Ferrick gave a presentation, “Consumers Deserve to Know What Oil They’re Buying.” API clarified that they are a standard setting body for motor oil specifications and that automobile manufacturers are prohibited from requiring the use of their own “brand” of motor oil. A state director requested regional consensus on this item. The CWMA recommends this item be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 NCWM Annual Meeting, Mr. Ferrick gave a presentation on “Does Brand Matter for Motor Oil.” The Committee received 33 letters in support and one letter of opposition for this item. During open hearings there were numerous state and county regulators and industry that supported this item. There was opposition from Jim O’Leary representing AOCA, who recommends that several amendments be done to this item. Areas of concern are Sections 2.33.1. Labeling of Vehicle Motor Oil, 2.33.1.3. Brand, and 2.33.1.4.1. Inactive or Obsolete Service Categories.

AOCA has submitted a letter to the Committee with details. A state regulator remarked that these products are labeled “motor oil” in the marketplace and are we in conflict in using the term “engine oil”? Ron Hayes, FALS Chair clarified that within the engine fuels regulations that motor oil also is defined as engine oil.

After discussing the comments from the 2012 NCWM Annual Meeting open hearings and the proposed changes, the NCWM L&R Committee agreed to modify the language in its Interim Report to that shown in this Final Report in the Item Under Consideration. The NCWM L&R Committee made an editorial change the term “vehicle motor oil” to “vehicle engine (motor) oil” throughout the item and made minor editorial changes.

Additional letters, presentations and data may have been part of the Committee’s consideration. To view the supporting documentation for this item, please refer to Appendix B in this report for additional content.

232-5 D Section 2.XX. Retail Sale of Electricity/Vehicle

Source:

National Institute of Standards and Technology, Office of Weights and Measures (2012)

Purpose:

Create a Developing Item to engage the weights and measures community in creating a method of sale to support uniformity in retail sales of electricity as vehicle fuel.

Item Under Consideration:

Proposal to be developed.

Background/Discussion:

Significant work is needed to gather and incorporate all available input from stakeholders including device manufacturers, public utility commissions, weights and measures officials, smart grid experts, and all others that are in a position to contribute to the development of a method of sale for electricity as vehicle fuel. Thus, it is recommended that this item be taken up as a Developing Item to encourage input from stakeholders and experts in the development of proposed definitions, method of sale requirements, retail equipment price posting and labeling requirements, and any other elements needed to advance the item for adoption.

While a specific proposal for consideration has yet to be developed, some preliminary examples and points to consider are offered below:

2.XX.1. Definitions.

- (a) **Electric Vehicle or Hybrid-Electric Vehicle. – A vehicle that employs electrical energy as a primary or secondary mode of propulsion.**
- (b) **Plug-in Electric Vehicle (PEV). – An electric vehicle that has onboard electrical energy storage designed to be charged via a physical connection to an external source of electrical energy.**
- (c) **Electricity as Vehicle Fuel. – Electrical energy transferred to and/or stored onboard an electric vehicle primarily for the purpose of propulsion.**
- (d) **Electric Vehicle Supply Equipment (EVSE). – A device or system used to transfer electrical energy to an electric vehicle, either as charge transferred via physical or wireless connection, by loading a fully charged battery, or by other means.**

2.XX.2. Method of Retail Sale and Supply Equipment Labeling. – Preliminary review suggests that the method of sale should be based on metered quantities to facilitate value comparison by consumers. The units should be specified for all electrical energy kept, offered, or exposed for sale and sold at retail as vehicle fuel, such as electrical energy units in terms of kilowatt hours (kWh) and/or in the metric equivalent unit for electrical energy joules (J)

2.XX.3. Retail Service Equipment Labeling. – The unit price on the basis of the method of sale will be important to consumers as a basis for a value comparison regardless of whether the electrical energy is delivered through a slow plug-in charging device, a fast charging device, or by battery replacement.

2.XX.4. Presentation of Price (Street Signs and Advertisements). – The unit price according to method of sale will be important to clearly represent on street signs and advertisements when a consumer must make a value comparison before pulling their vehicle into a station to purchase electrical energy.

Although many plug-in electric vehicle (PEVs) are primarily charged in homes and at work, it is projected that will have a growing need for public PEV charging stations in order to address public expectations and allow for successful adoption of PEV technology by the public. Several states have observed emergence of PEVs and made inquiries regarding direction of NCWM toward a method of sale for electricity as a vehicle fuel. One resource for locating charging stations online at https://na.chargepoint.com/charge_point identifies nearly 1100 charging stations already deployed across the United States. Use of electric vehicles and hybrid-electric vehicles is increasing. Adoption of electric vehicles is being driven by a number of factors, including high traditional fuel prices, auto industry investment in PEV technology, government investment and subsidies, national fuel economy standards, and state and national zero-emission vehicle and greenhouse gas standards.

A single, consistent method of sale is needed to pave the way for accurate measurement and representation of quantities sold and to facilitate value comparison by consumers. The method of sale is a crucial element that must be in place before the suitability of measurement methods and device technologies can be assessed. A measurement that is accurate, consistent, and understandable will promote consumer confidence and will provide consumers with a fundamental tool to perform value comparisons and protect themselves from confusion and fraud. An electrical energy-based method of sale would accomplish this.

Other methods of publicly offering electrical energy for sale as vehicle fuel have appeared in the absence of a nationally standardized method of sale. These include time-based charges, subscriber access, and gratis (free of charge) access. The coexistence of multiple methods of sale for the same commodity frustrates consumers' efforts to make informed value comparisons.

The actual value to a motorist of the electrical energy that is received during charging is in terms of the distance that they are able to travel. The increase in the distance they can travel after receiving a charge is dependent on the amount of electrical energy that was delivered during the charging event. The amount of charge that a vehicle receives during a charging event cannot be determined solely by measuring the time that it was connected to a charging system. The rate per time that charge is delivered will depend on many factors that cannot be controlled including, but not limited to, the starting charge level, the design of the vehicle battery, the type of charging equipment, and other environmental variables. For these reasons, a time based method of sale will not form a sound basis for a consistent value comparison and an electrical energy based method of sale is strongly recommended.

The current equipment for vehicle charging that is available in the marketplace today represents a very wide range of charging speeds, further emphasizing the need for a single method of sale. Level 1 equipment charges vehicles with 110 VAC and can take 8 hours to 12 hours to fully charge a vehicle. In contrast, a fast DC type of Electric Vehicle Supply Equipment (EVSE) is capable of charging a vehicle from 20 % to 80 % of full charge in 10 minutes, closely approximating the time of a traditional liquid (e.g., gasoline) vehicle fueling cycle. Consumers place a high value on their time, and so it is reasonable to expect that the unit price for electrical energy from a device that is capable of very fast charging will be higher. This can also be anticipated because the equipment capable of faster charging represents a higher capital investment. Since stations may offer multiple options for charging speed, a uniform language for describing the type of charging equipment available at any provider should be developed so that this important aspect of consumer value can be presented consistently in conjunction with the unit price to aid in the value comparison.

Vehicle charging using types of EVSE that offer slower charging rates is often offered in conjunction with other paid services (e.g., parking, valet parking, routine vehicle maintenance). In these cases, the unit price for electrical energy offered should be presented separately from any price for the other paid service(s) to allow for a value comparison with the cost of electrical energy offered by other providers.

For reference, a typical PEV can hold a charge of 24 kWh in onboard storage, with some vehicles capable of holding as high as 75 kWh. The average price of electrical energy in the United States is \$0.075 per kWh and the average price for residential electrical energy is \$0.089 per kWh. Presuming that the price for electrical energy as a vehicle fuel might range from \$0.10 per kWh to \$0.50 per kWh (perhaps depending on the speed of the ESVE charger), then the cost to the consumer to fill a vehicle might range from \$2.40 to as high as \$37.50.

An additional issue that needs to be explored and developed is that of “battery exchanges.” Equipment already exists that allows consumers to swap a depleted storage device for a fully charged onboard storage device (i.e., battery). In this case, the amount of charge present in the fully charged device should to be communicated to the consumer consistent with the method of sale to enable a value comparison between this method and plug-in ESVE charging. The issue of whether and how to credit a consumer for the amount of charge that exists in the battery that is to be removed should be considered as this item develops.

There are currently as many as eight manufacturers of EVSE that would benefit from clear direction on method of sale and device standards.

The National Association of Regulatory Utility Commissioners (NARUC) and other local Public Utility Commissions (PUC) interests have identified PEV use, and particularly public re-charging use cases, as having potentially significant impact on public utility efficiency, infrastructure needs, and pricing structures. Collaboration with these organizations in the development of national legal metrology standards for electrical energy sold as vehicle fuel would offer an opportunity for the creation and implementation of standards that take into consideration the missions of both NARUC and NCWM.

There is a likelihood that stations owned and operated by public utilities will coexist with privately owned charging stations. There may be regulatory issues in some jurisdictions that effect price regulation and competitiveness between these two types of stations. This is another reason that NARUC and PUC input is critically needed on development of a method of sale.

In *Comments of the Division of Ratepayer Advocates to the California PUC* (see Section II.A. www.dra.ca.gov/NR/rdonlyres/B2E02349-740A-4EA8-A4D0-69ED3C0D6623/0/R0908009DRACComments_A1b.pdf), the question has also been raised as to whether PUCs may require residential customers to install a separate electric sub-meter for PEV charging. If this occurs, it is most likely that consumers would be invoiced for charging their vehicles at home in the same kWh units that are used for their primary billing. If the method of sale at public charging stations matches the units that are billed for charging the same vehicle at the residence, this will further facilitate the value comparison by consumers.

In some states, electrical energy sub-metering already falls under the jurisdiction of state and local weights and measures authorities. These jurisdictions must now use established standards other than NIST Handbook 44 and NIST Handbook 130. National standards for the sale of electrical energy in NIST Handbook 44 and NIST Handbook 130 would promote greater uniformity on sub-metering applications.

At the 2011 CWMA Interim Meeting, an official suggested referencing FTC for labeling on alternative fuels. The CWMA recommends returning the item to the submitter for development and recommends the item as a Developing Item.

At the 2011 WWMA Annual Meeting, a state regulator commented that such vehicles already exist and there is no need for this matter to be addressed by NCWM. The Committee acknowledges that new technology is currently in the marketplace and encourages NCWM to develop a method of sale for electricity as a vehicle fuel. This was recommended as a Developing Item.

At the 2011 NEWMA Interim Meeting, an official questioned how consumers will be charged, how the effort will be monitored, and whether this would be considered a regulated utility. NEWMA forwarded the item to NCWM recommending it as a Developing Item.

At the 2011 SWMA Annual Meeting, a state regulator asked for clarification regarding the definition of an electric or hybrid electric vehicle. A NIST Technical Advisor noted that there is an absence of a clearly defined method of sale. Inquiries regarding the correct method of sale have increased as growth in charging stations have grown. The Technical Advisor asked that this item be made Developing because much information needs to be gathered. A couple state officials responded that only their utility companies can sell electricity. It was recognized that public utilities need to be an integral part of the process. A state official questioned whether a measuring device for electricity exists today and whether it was National Type Evaluation Program (NTEP) approved. There was also a question to whether a test measure can be traceable and certifiable to a standard. A state regulator expressed support for this item. SWMA forwarded the item to NCWM, recommending it as a Developing Item.

At the 2012 NCWM Interim Meeting concern with the definitions for primary and secondary and that it only deals with vehicle fuel. At this time there is no item for consideration and the language under the area “background/discussion” areas are to be considered. The NIST Technical Advisor remarked that OWM is currently gathering data and information from many resources. Eventually a work group will be formed to further develop this item. The NCWM L&R Committee is recommending that this item remain a Developing Item.

At the 2012 NEWMA Annual Meeting, a remark was made that devices are not utility electric meters but are subsidiary meters that fall under weights and measures jurisdiction. A stakeholder remarked that businesses are installing these sub-meters and support the development of this item. NEWMA supports this as a Developing Item.

At the 2012 CWMA Annual Meeting, a state official remarked that this is not a public utility and owners of these charging units make free market sales. States need to be concerned that this is a rapidly growing area and no standard currently exist. A state regulator remarked that there are quick and slow charging stations and recommends that consumers be charged on what the vehicle is capable of receiving and know what the device is capable of delivering. The CWMA supports this as a Developing Item.

At the 2012 NCWM Annual Meeting, the NIST Technical Advisor remarked that a NIST work group has been formed to develop this item, and there are two meetings schedule over the next several months. A draft proposal code has been developed and is worded heavily following the California standard. Two regulatory officials rose to express urgency in developing this proposal.

Mr. Marc Buttler, NIST, OWM, at (301) 975-4615 or marc.buttler@nist.gov will be the NIST Technical Advisor, if you are interested in assisting with the development of this item. Ms. Juana Williams, NIST, OWM, will be the Chair for the Electric Vehicle Supply Equipment Workgroup (EVSE) and can be reached at (301) 975-3989 or juana.williams@nist.gov.

232-6 I Packaged Printer Ink and Toner Cartridges

Source:

Southern Weights and Measures Association (SWMA) (2010)

Purpose:

This proposal is to clarify the labeling requirements for industry, consumers and weights and measures officials.

Item Under Consideration:

2.XX. Printer Ink and Toner Cartridges Labeling.

2.XX.1 Definitions.

2.XX.1.1. Printer Ink Cartridges. – Any cartridge or module that contains ink or a similar substance in liquid form employed in the printing and/or copying of documents, papers, pictures, etc., that is used in a printing device and designed to be replaced when no longer able to supply its contents in printing and/or copying.

2.XX.1.2. Toner Cartridges. – Any cartridge or module that contains toner, powder, or similar non-liquid substance employed in the copying or printing of documents, papers, pictures, etc. that is used in a printing and/or copying device and designed to be replaced when no longer able to supply its contents in printing and/or copying.

2.XX.2. Method of Sale and Labeling.

2.XX.2.1. Method of Sale, Printer Ink Cartridges. – All printer ink cartridges kept, offered, or exposed for sale or sold shall be sold in terms of the count of such cartridges and the fluid volume of ink in each cartridge, stated in terms of milliliters or fluid ounces.

2.XX.2.2. Method of Sale, Toner Cartridges. – All toner cartridges kept, offered, or exposed for sale or sold shall be sold in terms of the count of such cartridges, and the net weight of toner substance.

(Added 201X)

Background/Discussion:

Over the past several years, there has been a change in the marketplace on inkjet and toner cartridges net content statements. Currently, there is little uniformity in the marketplace on this item, and the Committee is seeing some labels with a net content or with only a page yield count (e.g., prints 1000 pages). The NIST, OWM pointed out that according to guidelines printed in NIST Handbook 130, Weights and Measures Law, Section 19 “information required on packages,” these products are required to have the net contents of the ink (and toner) labeled, but manufacturers have resisted, claiming an exemption under the FPLA. The purpose of this proposal is to specifically clarify the requirements for industry, consumers, and weights and measures officials.

At the 2009 SWMA Annual Meeting, a Lexmark representative commented that they do not believe that a net content statement should be required, and that a page yield is sufficient. He read the main points of a letter from Lexmark to Mr. Max Gray, Director, Florida Agriculture and Consumer Services, dated March 17, 2009. The main points within the letter were: 1) the ink associated with a cartridge is a small fraction of the total cost of the print cartridge mechanism; 2) a page yield can provide a meaningful comparison to a consumer, if all manufacturers employ the same estimating assumptions and techniques; and 3) the International Organization for Standardization (ISO) studied this issue for years and has rejected reliance on ink volume or quantity; instead ISO has developed a yield, estimating and claiming methodology that permits cartridges to be compared using a consistent yardstick. Unlike ink volume measurements, page yield measurements provide a consumer with a reliable way to compare the amount of printing that can be expected. Lexmark also stated that ink is expressly exempt from labeling as provided by the FPLA 16 CFR 503.2(a).

An industry representative believes this issue does need to be discussed and reviewed further. However, many officials believe that consumers should know what they are getting. If it is determined that page count is the quantity statement, then the page print standard should be reviewed and have tighter standards. Mr. Gray felt that more data is needed from manufacturers on this issue. SWMA forwarded the item to NCWM, recommending it as a Developing Item.

At the 2010 Interim Meeting, Mr. Matthew Barkley, Hewlett Packard Co., commented that the FPLA creates an exemption for ink, which extends to toner and ink cartridges. A declaration of weight and volume are not the best way for consumers to make value comparisons. Customers benefit from page count/yield. Mr. Barkley urged that this issue be Withdrawn. If this issue is to proceed, it should be Informational to allow for a review of the FPLA exemption. He suggested that page yield is widely accepted and has repeatability measures.

Mr. Paul Jeran, Hewlett Packard Co., submitted a white paper (refer to Appendix C in the *Report of the 96th NCWM* [SP 1125, 2011]) from the Information Technology Industry Council (ITI). This white paper included manufacturers from Epson, Hewlett Packard, Kodak, and Lexmark. Mr. Jeran explained that his background is with ink and toner measurement. For the same volume of ink, two different systems of the same model cartridge from two different vendors can print a different number of pages. In order to determine the page yield, they are using the ISO/IEC methodology. ISO is currently working on a photo yield standard.

A state official expressed concerns with page yield being the standard page print for quantity. There is variation based on the type of cartridge, printer, and font and if graphics/photos are being printed. There is also a concern with what ink cartridge re-fillers are doing. A Florida official reviewed the current practice of re-fillers, and they are listing on the labels the amount of ink. There are many manufactured packages in the marketplace, so value comparison to original equipment manufacturer (OEM) is critical. This is an expensive commodity and clarifications of the requirements are needed. A state official recommended that this item not be Withdrawn, but made Informational so additional information can be researched on this item. It is firmly believed that there needs to be a consistency with the declaration statement on these types of items. A consumer stated that he believes the net content needs to be stated with voluntary supplemental information for page yield. Some voiced their opinion that consumers need to know page yield in order to make a value comparison. The NIST Technical Advisor stated that under the FTC regulations ink and toner cartridges were not part of the CFR. NIST met with the FTC on February 26, 2010, to request clarification of the exemption. According to the Committee, there needs to be a test procedure for verification of net content developed for ink and toner cartridges. The 2010 L&R Committee designated this item be made an Informational Item until they can receive clarification from the FTC, review ISO standards, and determine what re-fillers' current practices are.

At the 2010 NEWMA and the CWMA Annual Meetings, both Associations received a presentation from Mr. Stephen Pociask, American Consumer Institute, regarding a lack of consumer information when purchasing computer printers and cartridges. Both Associations expressed that there are still many unanswered questions and would like to hear from manufacturers of ink and toner cartridges. Both associations recommended that the item remain as an Informational Item.

At the 2010 Annual Meeting, Mr. Pociask presented a 2007 study done by his organization with funding by a telemarketing research company. An official expressed concern that the study presented was not clear and asked if page count based on certain fill levels or declaring the weight on the cartridge itself. Mr. Pociask responded that currently Quality Logic uses the ISO standards. He also concluded that net weight is easy to enforce. Mr. Pociask stressed that his focus is to provide information that give consumers useful information in purchasing printers and the life cost of the printer, including printer ink cost.

Another official stated that the study was interesting, but would like to hear from manufacturers. There are several issues; cartridges are only for specific printers, when comparing price per page you suggest that price is static, and ink cartridge re-fillers need to be addressed.

Mr. Joshua Rosenberg, IT Industry Council (ITI), agreed that providing consumers with information is meaningful, however, relevant to the consumer is the number of pages that can print. The ISO standards are a good tool, but will lead to customer confusion. Mr. Rosenberg expressed that much more discussion is necessary on this issue.

At the 2010 Annual Meeting, the Board of Directors established the Printer Ink and Toner Cartridges Task Group to review and obtain additional information from all stakeholders. Ms. Vicky L. Dempsey, Chief Inspector, Montgomery County, Ohio, was appointed as Chair and Ms. Lisa Warfield was designated as the NIST Technical Advisor.

At the 2010 CWMA Interim Meeting, Ms. Dempsey, Chair of the Printer Ink and Toner Cartridge Task Group, announced her resignation to the association. Ms. Dempsey gave a briefing on this issue, in particular whether this particular form of ink is included in the exemption of the FPLA. It was indicated that FDA believes this exemption only applies to ink in pens, not in printer cartridges. Regulators commented that "yield" is more important for cost comparison for consumers; however, other regulators felt that "yield" is not a weights and measures issue. Another concern was that the ISO yields are based upon approximations. Discussion also included whether regulators would have to purchase printers in order to verify yield. It was generally agreed that this is a very complicated matter, and the method of sale needs to be measurable. A regulator stated he had spoken with a manufacturer and questioned how the packages are filled. The response indicated that packages are filled by volume. The CWMA Committee supported the efforts of the Printer Ink and Toner Cartridge Task Group to gather more information for development of this proposal. THE CWMA recommended that the item remain as an Informational Item.

At the 2010 WWMA Annual Meeting and the 2010 NEWMA Interim Meeting, it was announced that NCWM is seeking a chairperson for the Printer Ink and Toner Cartridge Task Group. The CWMA and WWMA are recommending that this item move forward as an Informational Item.

At the 2010 SWMA Annual Meeting, it was announced that a chair is needed for the Printer Ink and Toner Cartridge Task Group. The SWMA Committee does not endorse the formation of the Printer Ink and Toner Cartridge Task Group to resolve this issue. Only within the past couple years have manufacturers changed their declaration statement to read “yield.” Allowing the declaration by yield will open the door for other commodities to change their labeling (e.g., loads of laundry). The SWMA Committee recommends that these commodities be sold by volume and weight; however, they are not opposed to yield being a supplementary statement. This will allow for inspectors to verify the net contents, and also provide information for consumers to make value comparisons. The SWMA Committee would like to seek additional information from industry and ink re-fillers. The SWMA recommended the item under consideration move forward as a Voting Item.

At the 2011 NCWM Interim Meeting, the Printer Ink and Toner Cartridge Task Group held its first work session chaired by Ms. Maureen Henzler, Kansas Department of Agriculture. There was discussion on the current forms and types of printer ink. Industry also explained that they are able to deliver less ink with a better print quality. As a result, they refrain from using the net content statement but believe that a page yield is more useful information for a consumer in making comparisons. Industry was informed that yield is not acceptable, and they cannot use words like “approximate” and “estimated.” It was agreed that yield could be a supplementary statement on the package. The 2011 L&R Committee designated this item as an Informational Item.

The Printer Ink and Toner Cartridge Task Group requested additional information from industry with regard to:

1. How does the ISO standard work and how does this standard fit into the weights and measures test procedure?
2. How is print darkness measured?
3. Why have manufacturers removed the net weight declaration from packages and replaced it with a page yield?
4. When changing formulas, is the toner receptacle resubmitted back through the ISO standards to validate the page print accuracy?

At the 2011 NEWMA Annual Meeting there were no comments heard on this item. The Committee Chair reminded members that the Printer Ink and Toner Cartridge Task Group will be meeting on the Sunday prior to the start of the NCWM Annual Meeting, and that industry will be giving a presentation. NEWMA recommended that this item move forward as an Informational Item.

At the 2011 CWMA Annual Meeting, there were several comments heard on this item. Concern was expressed that ink cartridges used to have quantity on the label, but now, in the marketplace, only yield is used for labeling. A state director expressed concern that ink re-fillers are not being addressed under this proposal. The CWMA recommended that this item move forward as an Informational Item.

During the 2011 Annual Meeting of the NCWM, the Printer Ink and Toner Cartridge Task Group met (Sunday, July 17, 2011). This task group was attended by several members of state, county, and city weights and measures officials as well as members of industry. Mr. Josh Rosenberg, Information Technology Industry Council (ITI), and other members of the printer industry gave a presentation outlining their viewpoints using yield as the method of sale for their products. The printer industry representatives were asked questions regarding the amount of product each cartridge held and all agreed their respective companies were aware of the net contents of each container. A stakeholder stated that packages must have the weight, measure, or count – no other type of labeling is acceptable. Industry was also informed that “yield” is not an acceptable means of labeling for any product. The Printer Ink and Toner Cartridge Task Group will meet again at the NCWM 2012 Interim. The printer industry was asked to consolidate their presentation to only address the labeling issue of their products and address the task group with this

information. Also, the Printer Ink and Toner Cartridge Task Group plans to make a proposal to the NCWM L&R Committee for a method of sale for packaged printer inks and toner cartridges.

During the open hearings at the 2011 NCWM Annual Meeting, Mr. Rosenberg, with ITI (also representing Lexmark, HP, Kodak, Epson and Brother), entered their Sunday presentation for the record (refer to Appendix C in the *Report of the 96th NCWM* [SP 1125, 2011]). Mr. Rosenberg remarked that a label by volume or weight does not meet the objectives of their organization or consumers' preference. Mr. Rosenberg believes that yield is the best way to enable consumers to make informed purchase decisions. He further believes there is a way to provide information through yield data and the ability to apply the ISO standard for yield. Mr. Rosenberg stated they will be in attendance at the upcoming regional meetings to address any issues or concerns. A stakeholder noted that he does not believe the ISO yield standard is acceptable, due to the default system of each manufacturer's printer being different. He also pointed out that NCWM is not a performance based evaluation agency, and encourages the Printer Ink and Toner Cartridge Task Group to develop an item based on the use of weight or volume as the unit of measure. The L&R Committee would like to see additional work from the Printer Ink and Toner Cartridge Task Group.

At the 2011 NEWMA Interim Meeting, no comments were recorded, and it was recommended the item remain Informational.

At the 2011 SWMA Annual Meeting, no comments were recorded. The SWMA supports the item as written and recommends it as a Voting Item.

At the 2012 NCWM Interim Meeting, Ms. Henzler informed the Committee that the task group did not have a recommendation on a method of sale for either the ink or toner. They did suggest minor editorial changes to add the word "copying" after the word "printing" or vice versa, throughout the definitions.

Several members of the ink and toner industry recommended that this item be withdrawn and they have reflected this in letters written to the Committee since this item first appeared. They remarked that having the current proposal will confuse and mislead consumers. They believe that consumers are not concerned with the net quantity of ink they are getting, but how many pages they can print. They agreed that the definitions do need additional work. It was also remarked that there are other ink technologies out in the marketplace such as, wax sticks and oils. Currently wax sticks/crayons are sold by count.

A contractor commented that the Method of Sale Regulation states the items must be sold on the basis of weight, measures, or count. The regulation should be the starting point with the possibility of adding supplementary information.

The Committee believes test procedures need to be developed to test these commodities. In addition, destructive testing of these products can be costly. The Committee wants to look at the possibility that both toner and ink be sold by weight. Ms. Cardin, Committee Chair, will request that the NCWM Board of Directors appoint a new work group to develop test procedures and to disband the current Printer Ink and Toner Cartridge Task Group.

At the 2012 NEWMA Annual Meeting, the NCWM Chair indicated that there was an impasse on this item. The Task Group is not planning to meet at this time to resolve the issues. The Committee recommends that this be an Informational Item.

At the 2012 CWMA Annual Meeting, Ms. Judy Cardin, Task Group Chair, gave an overview of the history of this item and provided an update. The Task Group has been formed to focus on test procedures for weight statements on ink and toner cartridges. An industry representative remarked he was supportive of the Task Group's efforts and that an acceptable method of sale will be reached. He also recommended that the Conference get further participation from industry and stakeholders by sending out letters. The Committee recommends that this item be Informational. Additional submissions in Appendix C of this report have been part of the L&R Committees consideration.

At the 2012 NCWM Annual Meeting the new Printer Ink and Toner Gravimetric Package Testing Task Group met to discuss a test method that would require industry to label cartridges with a tare (packaged materials) weight. Matthew Barkley, Hewlett Packard, commented that any item under consideration should weigh benefits and competitive disadvantages. He also expressed concern that some proposals may create significant financial hardships for manufacturers and that these costs may be pass on to the consumers. The Task Group, Chaired by Ms. Cardin (judy.cardin@wi.gov), will continue its work on gravimetric test methods for printer ink and toner cartridges and will report its work at the 2013 NCWM Interim Meeting. The Committee is placing a Developing Item 260-5 on the agenda to report the work of the Printer Ink and Toner Gravimetric Package Testing WG. The L&R Committee will not develop Item 232-6 further until it hears the result of the new Task Group.

Anyone interested in participating in the Printer Ink and Toner Cartridge Gravimetric Package Testing Task Group should contact Ms. Cardin, Wisconsin Weights and Measures, at judy.cardin@wisconsin.gov or Ms. Lisa Warfield, NIST Technical Advisor at lisa.warfield@nist.gov. The 2012 L&R Committee designated this item as an Informational Item.

Additional letters, presentations and data may have been part of the Committee's consideration. To review supporting documents, please refer to Appendix C, *Report of the 96th NCWM* (SP 1125, 2011) and Appendix C in this report to review additional documents.

232-7 V Section 2.32.1. Definition of Hydrogen Fuel (H)

(This item was adopted.)

Source:

Southern Weights and Measures (SWMA)

Purpose:

Amend NIST Handbook 130, Regulation for the Method of Sale, Section 2.32.1. Definitions for Hydrogen Fuel.

Item Under Consideration:

2.32. Retail Sales of Hydrogen Fuel (H).

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

(Amended 2012)

(Added 2010)

Background/Discussion:

At the 2011 SWMA Annual Meeting, the NIST Technical Advisor to the U.S. National Work Group for the Development of Hydrogen Measurement Standards (USNHWG) requested a new proposal move forward to modify the definition of hydrogen fuel to recognize the latest updates to that term by the vehicle fuel community. The USNHWG is proposing this modification s to avoid confusion and maintain consistency between the definitions of hydrogen fuel under NCWM consideration in L&R Agenda Item 237-10, a proposal for adding the term to the NCWM Handbook 130, Engine and Fuels Automotive Lubricants Regulation and the term currently found in NCWM Handbook 130, Method of Sale and the Engine Fuels Regulation.

The SWMA L&R Committee supports the work of USNHWG and recommended this item be moved forward as a Voting Item with the recommendations noted above.

At the 2012 NCWM Interim, the NIST Technical Advisor to the USNHWG reported that this language had been approved by the USNHWG and encouraged the Committee to move the proposal forward as a Voting Item. The Committee agreed to add a new item to its agenda to update the current NIST Handbook 130 definition and recommended this proposal as a Voting Item.

At the 2012 NEWMA and the CWMA Annual Meetings both associations supported this item and recommended adoption by the NCWM.

At the 2012 NCWM Annual Meeting, there were no comments received on this item.

237 NIST HANDBOOK 130 – UNIFORM ENGINE FUELS AND AUTOMOTIVE LUBRICANTS REGULATION

237-1 V Section 2.1.2. Gasoline-Oxygenated Blends

(This item was adopted.)

Source:

Central Weights and Measures Association (2011)

Purpose:

Modify the language in Section 2.1.2. Gasoline-Oxygenate Blends and 2.1.3. Gasoline-Ethanol Blends to be aligned with the Environmental Protection Agency's (EPA's) language in the March 2009 Growth Energy Waiver request.

Item Under Consideration:

Amend the NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation as follows:

Section 2. Standard Fuel Specifications

2.1. Gasoline and Gasoline-Oxygenate Blends.

2.1.1. Gasoline and Gasoline-Oxygenate Blends (as defined in this regulation). – Shall meet the most recent version of ASTM D4814 “Standard Specification for Automotive Spark-Ignition Engine Fuel” except for the permissible offsets for ethanol blends as provided in Section 2.1.32. Gasoline-Ethanol Blends.

(Added 2009)

~~**2.1.2. Gasoline-Oxygenate Blends.**~~ – Shall contain no more than 10 volume percent ethanol. For other oxygenates, blends shall contain no more than 2.0 mass percent oxygen except fuels containing aliphatic ethers and/or alcohols (excluding methanol) shall contain no more than 2.7 mass percent oxygen.

~~(Added 2009)~~

2.1.32. Gasoline-Ethanol Blends. – When gasoline is blended with ~~1 to 10 volume percent~~ ethanol, the ethanol shall meet the ~~requirements~~ most recent version of ASTM D4806 “Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel” and the blend shall meet the most recent version of ASTM D4814 with the following permissible exceptions:

- (a) The maximum vapor pressure shall not exceed the ASTM D4814 limits by more than ~~1.0 psi~~ **for:**
 - (1) 1.0 psi for blends containing ~~Only~~ 9 to 10 volume percent ethanol ~~blends~~ from June 1 through September 15.
 - (2) 1.0 psi for ~~All~~ blends containing ~~of~~ 1 or more ~~to 10~~ volume percent ethanol for volatility classes A, B, C, D from September 16 through May 31.

(3) 0.5 psi for blends containing 1 or more volume percent ethanol for volatility Class E from September 16 through May 31.

The vapor pressure exceptions in subsections 2.1.2. Gasoline-Ethanol Blends will remain in effect until May 1, 2016, or until ASTM incorporates changes to the vapor pressure maximums for ethanol blends, whichever occurs earlier.

~~(b) Until May 1, 2012, or until ASTM D4814 incorporates changes to the 50 volume percent evaporated point to account for the volatility effects of up to 10 volume percent ethanol, whichever occurs earlier, the distillation minimum temperature at the 50 volume percent evaporated point shall not be less than 66 °C (150 °F) (see Notes 1 and 2).~~

~~(c) Until May 1, 2012, or until ASTM D4814 incorporates changes to the vapor lock protection minimum temperature for Classes 1–5 to account for the volatility effects of up to 10 volume percent ethanol, whichever occurs earlier, the minimum temperature for a Vapor-Liquid Ratio of 20 for the applicable vapor lock protection class for gasoline-ethanol blends shall be as follows (see Notes 1 and 2):~~

~~(1) Class 1 shall be 54 °C (129 °F)~~

~~(2) Class 2 shall be 50. °C (122 °F)~~

~~(3) Class 3 shall be 47 °C (116 °F)~~

~~(4) Class 4 shall be 41.5 °C (107 °F)~~

~~(5) Class 5 shall be 39 °C (102 °F)~~

~~(6) Class 6 shall be 35 °C (95 °F)~~

~~All gasoline and gasoline ethanol blends sold in Area V (as shown in ASTM D4814 Appendix Fig. X1.2) shall meet the vapor lock protection minimum temperatures in ASTM D4814.~~

~~NOTE 1: The value for the 50 volume percent evaporated point noted in Section 2.1.3.(b) and the values for Classes 1, 2, and 3 for the minimum temperature for a Vapor-Liquid Ratio of 20 in Section 2.1.3.(c) are now aligned and identical to those that are being published in ASTM D4814-09b and apply equally to gasoline and gasoline ethanol blends. In future editions of NIST Handbook 130, Section 2.1.3.(b) will be removed editorially and the reference to Classes 1, 2, and 3 in Section 2.1.3.(c) will be removed editorially. In addition, existing Sections 2.1.3. through 2.1.7. of NIST Handbook 130 will be renumbered.~~

~~NOTE 2: The temperature values (e.g., 54 °C, 50. °C, 41.5 °C) are presented in the format prescribed in ASTM E29 “Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications.”~~

~~(Added 2009) (Amended 2012)~~

Discussion/Background:

The EPA will make a ruling on the March 2009 Growth Energy Waiver. When the ruling is announced, the above regulation will need to be extended to cover E15 gasoline blends. The Renewable Fuels Association (RFA) is proposing a broader approach to recognizing the authorized proportion of ethanol. RFA recommends the following language:

2.1.2. Gasoline-Oxygenate Blends. – Shall contain no more than the maximum proportion of ethanol authorized by U.S. Environmental Protection Agency (EPA) under Section 211 of the Clean Air Act.

10 volume percent ethanol. For other oxygenates, blends shall contain no more than 2.0 mass percent oxygen except fuels containing aliphatic ethers and/or alcohols (excluding methanol) shall contain no more than 2.7 mass percent oxygen.

(Added 2009) (**Amended 20XX**)

At the 2010 CWMA Interim Meeting an update was given on the current consideration by EPA to allow higher ethanol blends in conventional vehicles. The Fuel and Automotive Lubricants Subcommittee (FALS) Chair stated that the FALS may be meeting to discuss this issue at the NCWM Interim Meeting 2011. The CWMA L&R Committee received two letters on this issue (refer to Appendix F in the *Report of the 96th NCWM* [SP 1125, 2011]). The CWMA recommends that this item be forwarded to the FALS for further work.

At the 2010 WWMA Meeting an industry representative expressed concern on what this action will have on car warranties and potential liability issues. A representative stated that he opposed this item until an official ruling is made by the EPA. The WWMA recommends that this item be made a Developing Item.

At the 2010 SWMA Annual Meeting and the 2010 NEWMA Interim Meeting, there were no comments heard on this item. The Conference would like to see a recommendation from the FALS. Both associations are recommending that these items go to the FALS for further development.

At the 2011 NCWM Interim Meeting, Mr. Ron Hayes, Chair for FALS reported that FALS held a conference call on January 14, 2011, and also met at the NCWM to review the FALS items. The FALS Chair reported that a consensus could not be reached on this item.

An industry representative expressed concern with legal and liability challenges if the current proposal is passed. A representative from the renewable fuels industry recommended moving the item forward for adoption as written, because it recognizes EPA as the authority on setting requirements for ethanol and will not restrict ethanol use. An energy representative also noted the proposal collaboratively has gone through all the regions with no opposition and moving this forward as a vote is to recognize what EPA has decided, and their authority not to restrict ethanol content. A representative from API commented that passing the proposal is premature and the NCWM should delay action until revisions to ASTM D4814 can be completed. He also noted that the EPA decision was based on the durability of emissions related equipment and vehicle emissions, and does not preempt rules that are based on grounds other than emissions; ASTM will need to determine the vehicle drivability characteristics of the fuel before amending the D4814 performance standard. It was suggested that the goal of the model engine fuel regulation is to ensure vehicle performance, so adopting the ASTM standard is appropriate. An automotive representative expressed support for waiting on the revisions for ASTM D4814. The 2011 L&R Committee designated this item as an Informational Item to allow FALS to study it further.

Section 2. Standard Fuel Specifications

2.1.2. Gasoline-Oxygenate Blends. – Shall contain no more than **the maximum proportion of 10 volume percent ethanol authorized by the U.S. Environmental Protection Agency (EPA) under Section 11 of the Clean Air Act.** For other oxygenates, blends shall contain no more than 2.0 mass percent oxygen except fuels containing aliphatic ethers and/or alcohols (excluding methanol) shall contain no more than 2.7 mass percent oxygen.

(Added 2009) (**Amended 20XX**)

At the 2011 NEWMA Annual Meeting, a consultant remarked that proposed labeling is currently with the Office of Management and Budget (OMB), and they are working with the Federal Trade Commission (FTC) to agree on a final requirement. The NEWMA recommended this item move forward as an Informational Item.

At the 2011 CWMA Annual Meeting, a letter was received recommending that the CWMA not give consideration to the proposal until ASTM D4814, Standard Specification for Automotive Spark-Ignition Engine Fuel is completed. The CWMA recommended that this item move forward as an Informational Item.

At the 2011 NCWM Annual Meeting, the FALS met to modify Section 2.1. Gasoline and Gasoline-Oxygenate Blends. FALS is waiting to see how E15 is incorporated into ASTM D4814, Standard Specification for Automotive Spark-Ignition Engine Fuel. ASTM is currently waiting for performance data from the Coordinating Research Council (CRC) study. A Tennessee state official recommends that the model regulation only refer to the ASTM D4814 specification for gasoline-oxygenate blends. There was additional discussion regarding the vapor pressure exceptions provided in the model law regulation. It was also mentioned that the Environmental Protection Agency (EPA) may eventually discontinue the 1.0 psi allowance for E10 blends. The Committee supports the item under consideration and would like to receive additional input from the Regional meetings.

At the 2011 CWMA Interim Meeting, Mr. Hayes, FALS Chair, stated they met and amended a proposal that blends must meet most recent version of ASTM D4814 standards. Mr. Hayes also stated E15 does not have a one-pound waiver. An energy industry representative explained that it took ASTM five years to modify the volatility limits for ethanol blended fuels. The industry representative noted 45 out of 50 states give winter one-pound relief, and if this ceases refinery costs will increase and supply will decrease. Furthermore, EPA may remove the summer one-pound relief in 2016. If this happens, where will the butane go? It took 12 years for drivability index to be developed; therefore, this will take some time. A state regulator questioned the need for a one pound relief suggesting one-half pound relief for winter fuels. Producers may manufacture fuel that exceeds ASTM specifications and will add ethanol to take advantage of the full one pound allowed. The energy company representative countered that 95 % of the gasoline in the states has ethanol and relief has been allowed with no report of problems. An ethanol company representative supports this proposal. The CWMA recommends moving the item forward as a Voting Item.

At the 2011 WWMA Annual Meeting, a FALS representative supported moving the item forward as a Voting Item. The WWMA supports the work of FALS and feels the item is ready to be considered a Voting Item.

At the 2011 NEWMA Interim Meeting no comments were heard. NEWMA recommended that the item remain as an Informational Item.

At the 2011 SWMA Annual Meeting, an industry representative expressed support for the item with two exceptions: 1) keeping the 1.0 psi waiver in 2.1.3.(a); and 2) that 2.1.3.(a)(2) be modified by changing 10 % ethanol to 15 % ethanol. It was noted that ASTM needs to take action to recognize the effect of ethanol on gasoline vapor pressure. Removal of the waiver by NCWM would result in an estimated 2.5 volume percent of the available gasoline pool in order to comply with more stringent ASTM specification limits. The Committee believes that this item will harmonize NIST Handbook 130 with ASTM D4814, while allowing ASTM time to make necessary changes. The SWMA supported the following item with the following two exceptions and recommends this as a Voting Item.

1. Keep the 1.0 psi waiver in 2.1.3.(a); and
2. 2.1.2.(a)(2) is modified by changing 10 volume percent ethanol to 15 volume percent ethanol.

At the 2012 NCWM Interim Meeting, the FALS met in a Sunday work session. Mr. Ron Hayes, FALS Chair, commented that one goal since the inception of the Fuels and Lubricants Subcommittee (formerly known as the Petroleum Subcommittee) is to reference ASTM standards whenever possible without exceptions. Mr. Hayes reviewed a presentation submitted by Mr. Jennings, Tennessee, which supported the recommended FALS changes as published into OWM Publication 15 (2012), that requires gasoline and gasoline oxygenates blends meeting ASTM D4814 without exceptions. A petroleum marketer remarked that the waiver should remain for 1.0 psi until additional data is submitted to ASTM.

Mr. Hayes agrees that data should come from ASTM or CRC. Mr. Bob Reynolds, Renewable Fuels Association, recommended that a review of the title of Section 2.1.1. "Gasoline and Gasoline-Oxygenated Blends" be made since this section refers to "ethanol". Mr. Reynolds also commented that decisions should be delayed on vapor pressure until ASTM or EPA can address this issue. A comment was made to table the psi changes and recommend this item move forward as a vote. An informal vote was taken from those in attendance and FALS is recommending this item move forward as a Vote with a modification to keep the waiver. During open hearings, the FALS Chair provided a recommendation that FALS had approved during their Sunday work session, but expressed that some members withdrew their support of the new language once they saw the actual language in print.

Several industry representatives supported this item as modified by the FALS, citing that there are no studies or data to support removal of the waiver. In addition, the waiver has been in place for over twenty years and cannot be arbitrarily removed; therefore, the waiver should remain. Conversely, another commenter expressed there is no data that supports the 1.0 psi waiver for winter grade gasoline especially for gasoline blends with the new lower T-V/L20 lower limits. Additionally, 1.0 psi is not needed for winter fuels as the vapor pressure increase to gasoline due to ethanol is only 0.5 psi. A letter was reviewed that stated the 1.0 psi waiver should be removed and recommended this item as documented. Additional comments were made by industry and regulators that Class E fuels should have a cap of 15.5 lbs.

The Committee recognizes that FALS will continue to modify this language as additional data is received. The Committee believes that this item is needed for E15, if not, states will handle them individually. The 2012 L&R Committee recommends that the language move forward as Voting Item.

At the 2012 NEWMA Annual Meeting, the L&R Committee received revised language from FALS. Two stakeholders stated they support the new language from FALS. The NEWMA L&R Committee was advised that FALS continues to work on this item and will present its final position at the NCWM Annual Meeting.

At the 2012 CWMA Annual Meeting, Mr. Hayes, FALS Chair, presented revised language. There was substantial agreement on this language but a final consensus was not reached. The Committee continues to support the FALS and looks forward to reviewing a consensus document.

At the 2012 NCWM Annual Meeting, Mr. Prentiss Searles opposed this item as written and submitted revised language for the Committee to consider. Mr. Searles would like to align NIST Handbook 130 with ASTM. Mr. Searles also stated that the proposal put forward by FALS was a placeholder and consensus was not reached. In addition, industry is opposed to such language presented by FALS. Fifteen industry/stakeholder representatives, five state regulators spoke in favor of the language submitted by Mr. Searles. Several states supported the proposal as provided in NCWM Publication 16. One state regulator stated they could support the later enforcement date as proposed by API if the oil companies were truly sincere in moving towards aligning states with ASTM standards without any exceptions including other volatility exemptions and distillation temperatures.

For both NCWM Publication 16 and the alternative language the 10 % ethanol cap is removed, thus allowing blends up to 15 % ethanol.

For non-summer fuels, this alternative language retains the 1 psi waiver (with the exception of Class E fuel which has a 0.5 psi waiver) that currently exists within NIST Handbook 130 for 1 % to 10 % ethanol. This also expands the same vapor pressure waiver for all blends including blends up to 15 % ethanol, and provides a sunset date of May 1, 2016, at which point there will be no exceptions to ASTM standards. For non-summer fuels, the NCWM Publication 16 language would have eliminated the 1 psi waiver for fuel with the publication of NIST Handbook 130 (2013).

The Committee recommends the language submitted by API be considered for adoption.

During the voting session, a state regulator voiced concern that the Committee is asking for a Vote on new language that did not have proper time for review or discussion at the regional association meetings. The Committee Chair remarked that language changes occur often as a result of open hearing testimony and this language, when proposed during testimony, was widely supported as a reasonable compromise to allow the proposal to move forward.

After discussing the comments from the 2012 NCWM Annual Meeting Open Hearings and the proposed changes, the Committee agreed to modify the language in its Interim Report to that shown in this Final Report in the Item Under Consideration.

Additional letters, presentations and data may have been part of the Committee's consideration. To review supporting documents, please refer to Appendix F, *Report of the 96th NCWM* (SP 1125, 2011) and Appendix D in this report to review additional documents.

237-2 I Section 2.1.5. Minimum Motor Octane Number

Source:

BP Global Fuels Technology – West Coast (2011)

Purpose:

Remove Section 2.1.5. Minimum Motor Octane Number since it is considered obsolete.

Item Under Consideration:

Amend the NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation, Section 2.1.5. Minimum Motor Octane Number as follows

~~**2.1.5. Minimum Motor Octane Number. The minimum motor octane number shall not be less than 82 for gasoline with an AKI of 87 or greater;**~~

Background/Discussion: In the early 1990s, the Table titled “Automotive Spark-Ignition Engine Fuel Antiknock Indexes in Current Practice” was removed from the body of ASTM D4814 and placed into an Appendix in ASTM D4814. This Appendix is non-mandatory information and is not part of the specification. It is inappropriate for NIST Handbook 130 to continue with the 82 motor octane number minimum for the following reasons: 1) 82 motor octane number minimum is not an ASTM D4814 specification; 2) FTC regulates octane posting and has no motor octane number minimum; 3) neither the Kinder Morgan Pipeline nor the Olympic Pipeline requires a minimum motor octane number specification; and 4) the Colonial Pipeline has no motor octane number minimum for either Reformulated Blendstock for Oxygenate Blending (RBOB) or Conventional Blendstock for Oxygenate Blending (CBOB).

Recent data shows a low motor octane number is actually preferable for the current fleet of vehicles. Motor and Research octane numbers are equally important to the performance of the motor vehicle engine. A minimum motor octane number requirement offers no more protection to the consumer than the road octane number that is the average of the Motor and Research octane numbers.

At the 2010 SWMA and WWMA Annual Meetings and the 2010 CWMA and NEWMA Interim Meetings, all four associations forwarded the item to NCWM, recommending it as an Informational Item. The SWMA, CWMA, and NEWMA recommended that the item to be developed by FALS.

At the 2011 NCWM Interim Meeting, the FALS Chair reported that the Subcommittee recommended that this item be Informational to allow more time for data to be reviewed. Historical data exists and the Coordinating Research Council (CRC) study is currently being done that will clarify issues and provide data needed to assist with making decision. There were no comments heard from the floor during Open Hearings. The Committee made this item Informational.

At the 2011 NEWMA Annual Meeting, there were no comments heard on this item. The NEWMA recommended that this item move forward as an Informational Item.

At the 2011 CWMA Annual Meeting, the FALS Chair indicated that they are waiting for results from the CRC study and recommends this remain Informational because it is not fully developed. The CWMA L&R Committee recommended that this item move forward as an Informational Item.

At the 2011 NCWM Annual Meeting, FALS met and a presentation was provided by Mr. Jim McGetrick regarding background information on minimum octane levels. FALS is still waiting for the data from the CRC study (report no. 660). The CRC plans to collect additional data on octane. FALS is recommending this be kept Informational until additional information is received and a recommendation to the Committee can be prepared.

At the 2011 CWMA Interim Meeting, Mr. Hayes stated most new cars respond better to the research octane number rather than to the anti-knock index; however, this is still being studied by the CRC and research is ongoing. Therefore, it is recommended that the item remain an Informational Item.

At the 2011 WWMA, SWMA Annual and NEWMA Interim Meetings, the recommendation was to keep this an Informational Item.

At the 2012 NCWM Interim Meeting, Mr. Hayes reported to the L&R Committee that a FALS Task group continues to work on this item. Mr. Mahesh Albuquerque, Colorado, Task Group Chair reported that information is still being gathered and recommends it be an Informational Item. The L&R Committee is recommending that this item be Informational.

At the 2012 NEWMA Annual Meeting, a representative remarked that this is a non-issue. NEWMA recommends this be an Informational Item.

At the 2012 CWMA Annual Meeting, no comments were received. The CWMA recommends this be an Informational Item.

At the 2012 NCWM Annual Meeting, two industry representatives supported the further development of this item by the task group. Mr. Bill Studzinski, General Motors, will be leading the discussion on this item for the FALS. And, a stakeholder remarked that we do not need a task force for this item and that we should refer to ASTM.

Additional letters, presentations, and data may have been part of the Committee's consideration. To review supporting documents, please refer to Appendix F in this report.

237-3 V Section 3.3. Diesel Fuel

(This item was adopted.)

Source:

Missouri Department of Agriculture (2012)

Purpose:

Establish uniform fuel dispenser nozzle colors for product recognition and limit diesel nozzle spout to a minimum size to prevent accidental mis-fueling.

Item Under Consideration:

Amend the NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation under Section 3.3. Diesel Fuel as follows:

3.3. Diesel Fuel.

3.3.1. Labeling of Grade Required – Diesel Fuel shall be identified by grades No. 1-D, No. 2-D, or No. 4-D.

3.3.2. EPA Labeling Requirements Also Apply. – Retailers and wholesale purchaser-consumers of diesel fuel shall comply with EPA pump labeling requirements for sulfur under 40 CFR § 80.570.

3.3.3. Delivery Documentation for Premium Diesel. – Before or at the time of delivery of premium diesel fuel, the retailer or the wholesale purchaser-consumer shall be provided on an invoice, bill of lading, shipping paper, or other documentation a declaration of all performance properties that qualifies the fuel as premium diesel fuel as required in Section 2.2.1. Premium Diesel Fuel.

(Added 1998) (Amended 1999)

3.3.4. Nozzle Requirements for Diesel Fuel. – Each dispensing device from which diesel fuel is sold at retail shall be equipped with a nozzle spout with a diameter that conforms to the latest version of SAE J285, “Dispenser Nozzle Spouts for Liquid Fuels Intended for Use with Spark Ignition and Compression Ignition Engines.”

(Enforceable effective July 1, 2013)

(Added 2012)

(Added 1998) (Amended 1998, 1999 **and**, 2008, **and 2012**)

Background/Discussion:

Missouri Weights and Measures receive numerous complaints each year related to the accidental mis-fueling of vehicles. Information received from many other states indicates the same problem exists nationwide.

At the 2011 CWMA Interim Meeting, an energy company representative gave a presentation with examples of colors of labels and other decals on dispensers as well as fuel containers and commented that there is a “rainbow of colors” out there. A state regulator commented and another agreed that all mis-fueling complaints in his state occurred because the consumer reached for a green handle thinking it was diesel. Multiple petroleum marketers contacted him to address this problem (refer to Appendix F). Additionally, all diesel fuel caps and replacement caps are color coded. Another state regulator stated that having the nozzle match the fuel cap is a good idea. Mr. Hayes, FALS Chairperson, stated that larger nozzles have virtually eliminated mis-fueling of diesel into gasoline tanks in his state. American Automobile Association (AAA) has contacted him and supports this proposal as do several auto manufacturers. The CWMA L&R Committee believes the proposal is ready for consideration and recommended moving this item forward as a Voting Item.

At the 2011 WWMA Annual Meeting the Western Petroleum Marketers opposed this item due to color limitations as there is not an issue with nozzle size requirements. There were several comments that a color coding system can be difficult to enforce. The WWMA L&R Committee concurs with the comments heard from the floor and believes their job is to perform quality assurance at the fuel stations. Colored nozzles are beyond the scope of their responsibilities. It also conflicts with current marketing practices. The WWMA recommendation is to Withdraw this item.

At the 2011 NEWMA Interim Meeting careful consideration was given to colors chosen so as not to conflict with existing colors. The NEWMA supports this item as a Developing Item.

No comments were received at the 2011 SWMA Annual Meeting. SWMA recommends placing this as a Voting Item.

Initial Item Under Consideration published in NCWM Publication 15 (2012):

- Establish uniform nozzle color requirements for easier product identification on motor fuel dispensers. Limit the minimum spout size for diesel dispensers to 0.93 inches to prevent accidental mis-fueling. Add the following to Section 3, Classification and Method of Sale of Petroleum Products:

3.1.4. Nozzle Color Requirement for Fuels. – Each dispensing device nozzle from which fuel is sold at retail shall not be yellow or green in color unless provided in sections 3.3.5. and 3.8.3.

(Added 20XX)

3.3.4. Nozzle Requirements for Diesel Fuel. – Each dispensing device from which diesel fuel is sold at retail shall be equipped with a nozzle spout having a terminal end with an outside diameter of not less than 23.63 mm (0.930 in).

(Added 20XX)

3.3.5. Nozzle Color Requirement for Diesel Fuel. – Each dispensing device from which diesel fuel is sold at retail shall be equipped with a nozzle green in color.

(Added 20XX)

3.8.3. Nozzle Color Requirement for E85 Fuel Ethanol. – Each dispensing device from which E85 Fuel Ethanol is sold at retail shall be equipped with a nozzle yellow in color.

(Added 20XX)

At the 2012 NCWM Interim Meeting during the FALS meeting, Mr. Hayes, FALS Chair, reviewed several letters regarding this item. A petroleum marketer recommends the term “E85” be replaced with “flex fuels.” Concern was expressed that if all states do not adopt this regulation it could cause confusion in the marketplace. Mr. Hayes remarked that this proposal simply states that gasoline nozzles can be any color, other than green or yellow. This would help resolve the issue of individuals putting gas into diesel tanks. Currently, diesel fuel going into gasoline powered vehicles is controlled by the size of the nozzle spout. An industry representative expressed concern that this proposal may lead to additional restrictions, and there is no data to prove it will resolve the mis-fueling problem. A state inspector remarked that this is not a big impact on service station operators since stations are currently 90 % compliant in regards to color. FALS is recommending a one year implementation date (July 2013) and to exempt high flow meters at truck refueling sales. Consensus was reached and there were no objections to recommend the item move forward as a Voting Item with the modifications suggested.

Mr. Hayes provided the Committee with recommended modifications to the current language that would exempt high flow meters, with a July 2013 implementation date, and to change the term “E85” to “flex.” After considerable discussion with the FALS they recommend the modified language move forward as a Voting Item.

During the open hearings a state regulator replied that it is necessary to add this proposal to the NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation since many states will adopt it. An industry representative expressed concerns requiring a change to colored nozzles citing that companies use nozzle color as part of their image requirements, and they have contractual agreements with retailers. An industry representative agreed that adding a standardized color requirement will not end mis-fueling problems and some states may not even adopt this requirement. Several industry representatives supported language for nozzle size and proposed that the language for nozzle color be withdrawn citing that gas pumps are clearly marked and labeled and consumers need to take responsibility for using the correct nozzle. A statement was made that mis-fueling happens in less than 1 % of all gas pump fills. A state regulator stated consumers are overwhelmed with the number of decals on the dispensers with advertisements on dispenser cabinets, dispenser toppers, and now streaming videos which distracts the consumer from important safety warning signs. A uniform nozzle color scheme is a simple, low cost solution to reduce mis-fueling at the pump.

A State Director supported this proposal due to issues with mis-fueling, agreeing there is a need to keep diesel and gasoline dispensers different. Another State Director questioned whether weights and measures is the appropriate place to regulate mis-fueling and recommended the item be withdrawn stating it oversteps NCWM bounds. Another State remarked that both nozzle size and color coding follow SAE practices. Another state regulator did not see how a color requirement will help, but does support requirements for nozzle sizes. A State Director remarked that they have done research on color coding, and it ultimately provides consumer protection. He submitted a letter from the Missouri American Automobile Association that concurs with this. A state official recommended separating this into two separate proposals.

The Committee reviewed the initial item under consideration and recommended withdrawing Section 3.1.4., 3.3.5., and 3.8.3.; and recommends that Section 3.3.4. move forward as a Voting Item with an effective date of July 1, 2013.

At the 2012 NEWMA Annual Meeting, a stakeholder remarked that this is currently practiced in the marketplace. A state regulator commented that the concern is the location of diesel nozzles on a dispenser and that larger nozzles help in alleviating the problem. Another state regulator commented that S&T had many unanswered questions, which he would like to see handled first. A consumer remarked that the Method of Sale should be allowed to

advance within L&R without waiting for S&T. A comment was made about how many diesel cars are unable to handle the larger nozzle size for the fuel intake and that automobile manufacturers should be consulted on this item.

At the 2012 CWMA Annual Meeting, a state regulatory official rose to support this item and would be submitting a new proposal to address product identity. Two additional stakeholders rose to support this item. The CWMA recommends this item be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 Annual NCWM Meeting, a consumer asked how many individuals have reviewed the ASTM J285 standard to see if there are requirements for relief valve, size of fitting, or other required items. The FALS Chairperson clarified that this is only for dispenser nozzle spouts for liquid fuels intended for use with spark ignition and compression ignition engines. It was recommended the L&R Committee add in the spout size requirement to the language. A state director requested that the actual SAE standard be referenced. Another state director urged the L&R Committee to also move forward with the nozzle colors to help prevent mis-fueling problems in his state such as gasoline into diesel vehicles and E85 into “gasoline only vehicles.”

After discussing the comments from the 2012 NCWM Annual Meeting open hearings and the proposed changes, the L&R Committee agreed to modify the language in its Interim Report to that shown in this Final Report in the Item Under Consideration.

Additional letters, presentations, and data may have been part of the Committee’s consideration. To review supporting documentation, please refer to Appendix F in this document.

237-4 V Section 3.13.1. Labeling of Vehicle Motor Oil

(This item was adopted.)

Source:

Central Weights and Measures Association (2011)

Purpose:

Amend the Fuels and Automotive Lubricants Regulation to require detailed invoicing requirements. Some oil facilities may not deliver the advertised oil, so consumers may be receiving lower quality oil. It is being recommended that retailers that provide oil change services be required to provide consumers with a document that lists the oil’s manufacturer, brand name, SAE viscosity, and service requirements as defined in API 1509, SAE J183, or ASTM D4485.

Item Under Consideration:

3.13. Oil.

3.13.1. Labeling of Vehicle Engine (Motor) Oil Required

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

(Amended 2012)

3.13.1.2. Intended Use. – The label on ~~each container of any~~ vehicle engine (motor) oil container shall contain a statement of its intended use in accordance with the latest version of SAE ~~J300~~ J183 “Engine Oil Performance and Engine Service Classification (Other than “Energy Conserving”).”

(Amended 2012)

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

(Added 2012)

~~3.13.1.3.1. Exception for Quantities of One Gallon (3.785 L) or Less. – A container of engine vehicle motor oil with a volume of 1 gal (3.785 L) or less that does not meet an active service category, as defined by the latest version of SAE J183, shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, for obsolete API oil categories.~~

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

(Amended 2012)

3.13.1.4.1. Inactive or Obsolete Service Categories. – The label on any vehicle engine (motor) oil container, receptacle, dispenser, or storage tank and the invoice or receipt from service on an engine that includes the installation of vehicle engine (motor) engine oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with SAE J183, “Engine Oil Performance and Engine Service Classification (Other than “Energy Conserving”)” Appendix A, whenever the vehicle engine (motor) oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAE J183, “Engine Oil Performance and Engine Service Classification (Other than “Energy Conserving”).”

(Added 2012)

3.13.1.4.25. Tank Trucks or Rail Cars. – Tank trucks, rail cars, or types of delivery trucks that are used to deliver vehicle engine (motor) oil are not required to display the SAE viscosity grade and service category or categories as long as the bill of lading or other documentation provides that information.

(Added 2012)

All references to invoice or receipt will be enforceable effective on July 1, 2013.

(Amended 2012)

Background/Discussion:

At the 2010 CWMA Interim Meeting, a state regulator stated that oil changing facilities are affecting revenues from legitimate businesses by masquerading as branded facilities, while selling lower-quality oil (refer to Appendix G, in the *Report of the 96th NCWM* (SP 1125, 2011)). The consumer believes they are receiving the advertised brand of oil. At least one branded oil company has investigated certain questionable installers, filed lawsuits, and have successfully closed those suits with installers in the area of trademark infringement and deceptive trade practices. To assist in mitigating these unlawful trade practices and to protect consumers against fraudulent activity, it is recommended that invoice be established. A state regulator questioned if businesses were using the same hose for hydraulic and motor oil, or if the hose would be flushed prior to using it for a different product. He remarked that there would be a contamination factor. The CWMA recommends that the item under consideration move forward to the NCWM L&R Committee for consideration.

Original Proposal:**3.13. Oil.****3.13.1. Labeling of Vehicle Motor Oil.**

3.13.1.1. Viscosity. – The label on each container of vehicle motor oil shall contain the viscosity grade classification preceded by the letters “SAE” in accordance with the SAE International’s latest version of SAE J300.

3.13.1.2. Intended Use. – The label on each container of vehicle motor oil shall contain a statement of its intended use in accordance with the latest version of SAE ~~J300~~J183.

3.13.1.3. Engine Service Category. – The label on ~~each a container of~~ vehicle motor oil container, receptacle, pump, dispenser, or storage tank and the invoice from the sale of vehicle motor oil dispensed from a receptacle, pump, dispenser, or storage tank shall contain the engine service category, or categories, met in letters not less than 3.18 mm ($\frac{1}{8}$ in) in height, as defined by the latest version of SAE J183 or API Publication 1509, “Engine Oil Licensing and Certification System.”

3.13.1.3.1. ~~Exception for Quantities of One Gallon (3.785 L) or Less Inactive or Obsolete Service Categories.~~ – ~~A container of engine vehicle motor oil with a volume of 1 gal (3.785 L) or less that does not meet an active service category, as defined by the latest version of SAE J183, shall bear a plainly~~ The label on a vehicle motor oil container, receptacle, pump, dispenser, or storage tank and the invoice from the sale of vehicle motor oil dispensed from a receptacle, pump, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, ~~for obsolete API oil categories whenever the vehicle motor oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAI J183.~~

3.13.1.3.2. Tank Trucks or Rail Cars. – Tank trucks or rail cars that are used to deliver vehicle motor oil are not required to display the SAE viscosity grade and service category or categories as long as the bill of lading or other documentation provides that information.

At the 2010 WWMA Annual Meeting, an industry representative, who submitted this proposal, recommended that the term “pump” be dropped from the language. A state official questioned if checking the labeling on bulk tanks is the responsibility of weights and measures, or is it an industry issue? The Technical Advisor suggested giving consideration to mirroring this same language in the method of sale. The L&R Committee recognizes that statement of brand is required on liquid measuring devices in NIST Handbook 44. The WWMA recommends this item be moved forward as Informational Item and have it be reviewed by the FALS.

3.13. Oil.**3.13.1. Labeling of Vehicle Motor Oil.**

3.13.1.1. Viscosity. – The label on ~~each container of a~~ vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the viscosity grade classification preceded by the letters “SAE” in accordance with the SAE International’s latest version of SAE J300.

3.13.1.2. Intended Use. – The label on ~~each container of a~~ vehicle motor oil container shall contain a statement of its intended use in accordance with the latest version of SAE ~~J300~~ J183.

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

~~3.13.1.3.1. Exception for Quantities of One Gallon (3.785 L) or Less. – A container of engine vehicle motor oil with a volume of 1 gal (3.785 L) or less that does not meet an active service category, as defined by the latest version of SAE J183, shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, for obsolete API oil categories.~~

3.13.1.3.4. Engine Service Category. – The label on ~~each container of~~ a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the engine service category, or categories, met in letters not less than 3.18 mm ($\frac{1}{8}$ in) in height, as defined by the latest version of SAE J183 or API Publication 1509, “Engine Oil Licensing and Certification System.”

3.13.1.4.1. Inactive or Obsolete Service Categories. – The label on a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, whenever the vehicle motor oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAE J183.

3.13.1.4.2. Tank Trucks or Rail Cars. – Tank trucks, rail cars, or other types of delivery trucks that are used to deliver vehicle motor oil are not required to display the SAE viscosity grade and service category or categories as long as the bill of lading or other documentation provides that information.

At the 2010 SWMA Annual Meeting, Mr. Ferrick, API, notified attendees that they were seeing a revised proposal. This revision was not presented at the 2010 CWMA and WWMA meetings. Mr. Ferrick supports this item stating that NIST Handbook 130 has required that labels on motor oil packages identify the oil’s SAE viscosity and API performance level. Both of these items are important pieces of information for consumers. The changes proposed for NIST Handbook 130 are intended to apply the labeling requirements for packaged motor oils to oils sold in bulk. The changes as proposed would require motor oil manufacturers and distributors to identify the oils they deliver, and for installers to identify the oils they dispense. Requiring distributors to identify the motor oils they deliver to installers will help ensure that installers know what they are dispensing, and requiring installers to do the same on their invoices will provide the same level of information for consumers. The SWMA L&R Committee reviewed the revised language submitted and agreed that the item has merit. It was also noted that the language needs to be similar for the regulations as well as the method of sale in NIST Handbook 130. The SWMA forwarded this item to NCWM recommending it as an Informational Item.

At the 2010 NEWMA Interim Meeting, a representative of API spoke in favor of the need to disclose on all motor oil storage vessels and in receipts for oil change services the motor oil information. Currently, consumers may not be sure of what motor oil product they are receiving and may be subjected to fraud. A disclosure requirement would clearly disclose to consumers what they are purchasing and help eliminate any fraud. The NEWMA believes this is a consumer friendly issue, and that requiring retailer invoices for oil change services to disclose the manufacturer, brand name, SAE viscosity, and service requirements is appropriate. Proposed labeling requirements should be included on the agenda as a Developing Item.

At the 2011 NCWM Interim Meeting, Mr. Hayes reported that FALS recommends moving the Western (WWMA) language forward. An API representative and submitter of the item also recommend that this revised version presented at the WWMA move forward. The 2011 L&R Committee supported this item and designated it as a Voting Item.

3.13.1. Labeling of Vehicle Motor Oil.

3.13.1.1. Viscosity. – The label on ~~each container of a~~ vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the viscosity grade classification preceded by the letters “SAE” in accordance with the SAE International’s latest version of SAE J300.

3.13.1.2. Intended Use. – The label on ~~each container of a~~ vehicle motor oil container shall contain a statement of its intended use in accordance with the latest version of SAE ~~J300~~ **J183**.

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

~~**3.13.1.3.1. Exception for Quantities of One Gallon (3.785 L) or Less.** – A container of engine vehicle motor oil with a volume of 1 gal (3.785 L) or less that does not meet an active service category, as defined by the latest version of SAE J183, shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, for obsolete API oil categories.~~

3.13.1.3.4. Engine Service Category. – The label on ~~each container of a~~ vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the engine service category, or categories, met in letters not less than 3.18 mm ($\frac{1}{8}$ in) in height, as defined by the latest version of SAE J183 or API Publication 1509, “Engine Oil Licensing and Certification System.”

3.13.1.4.1. Inactive or Obsolete Service Categories. – The label on a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, whenever the vehicle motor oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAE J183.

3.13.1.4.2. Tank Trucks or Rail Cars. – Tank trucks, rail cars, or other types of delivery trucks that are used to deliver vehicle motor oil are not required to display the SAE viscosity grade and service category or categories as long as the bill of lading or other documentation provides that information.

At the 2011 NEWMA Annual Meeting, it was noted that the title to the SAE and API standards technical title would editorially be added to the proposal. A request was made to change the word “motor” to “engine.” A representative with API did not object to these changes. The NEWMA recommended that the item move forward as a Voting Item.

At the 2011 CWMA Annual Meeting, the FALS Chair noted there is an identical proposal under Item 232-4 for the method of sale. It was remarked by an API representative that some oils have no business in the marketplace because they may cause engine damage. He further noted that it is vitally important for this language to be accepted. The CWMA recommended that this item move forward as a Voting Item with the editorial corrections.

At the 2011 NCWM Annual Meeting, the FALS and Committee received a letter from a stakeholder in support of this proposal (refer to Appendix G). There is a corresponding method of sale proposal under Item 232-4. It was agreed that the title to the ASTM standards would be editorially added into the proposal. A stakeholder requested that the Committee give consideration to implementing the requirement of this information being available on the receipt to a later date. This will allow retailers time to change over their system. During Committee review, it was agreed that the term “motor” would not be changed to “engine.” Consideration was given to adding the following

language with regard to receipts, “All references to invoice or receipt will be enforceable effective on July 1, 2012,” and to add the word “or receipts” after the term invoice.

On a split vote, the item was returned to Committee. A motion was made during the voting session to remove Section 3.13.1.3. Brand; however, the motion failed. Mr. Hayes commented that brand is an important issue and removal of this section would facilitate continued fraud in the marketplace. Also, consumers would not have the required information to verify warranty work if product identity is removed from the proposal. Engine oils are different blends and stocks. Several states support the inclusion of brand.

At the 2011 WWMA Annual Meeting, a presentation was given by Mr. Ferrick, API, to clarify the issue of branding. API offered their assistance to the states regarding the testing of branding. A state regulator supported the item. There was concern regarding the bulk containers and comingling of product and several states expressed concern regarding the enforcement of branding. The Western Petroleum Marketers Association supported this item. The WWMA Committee feels the proposal is fully developed and recommends moving the item forward as a Voting Item with an editorial change to the effective date statement to read “All references to invoice or receipts will be enforceable effective on July 1, 2013.”

At the 2011 NEWMA Interim Meeting, the NEWMA recommended the item to a Voting Item.

At the 2011 SWMA Annual Meeting, Mr. Ferrick stated that the presentation given earlier in the day also applies here. API has to know the brand when testing in order to take action and enforcement in an effort to protect consumers. Mr. Ferrick recommended a July implementation date if adopted. Because of the new information provided by API the SWMA recommended that the item be a Voting Item with a July 2013 implementation date.

At the 2012 NCWM Interim Meeting, the FALS met and Mr. Ferrick provided an updated that addressed the issues with the concerns on “brand.” There were no objections heard so FALS is recommending this item to the Committee as a Voting Item.

Mr. Ferrick will provide guidance to all regions and the 2012 NCWM Annual Meeting on the process to have brand tested in the event of a complaint. The 2012 L&R Committee designated this item as a Voting Item with a modification to the enforcement date to of July 2013 for invoice and receipt requirements.

At the 2012 NEWMA Annual Meeting, Mr. Ferrick presented a review of this item to the members, and he indicated his support for the item. NEWMA recommends this item be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 CWMA Annual Meeting, Mr. Ferrick gave a presentation, “Consumers Deserve to Know What Oil They’re Buying.” The CWMA recommends this item be considered for adoption at the 2012 NCWM Annual Meeting.

At the 2012 NCWM Annual Meeting, Mr. Ferrick gave a presentation on “Does Brand Matter for Motor Oil.” The Committee received 33 letters in support and one letter of opposition for this item.

During open hearings there were three states that supported this item. The Committee agreed to make an editorial change the term “vehicle motor oil” to “vehicle engine (motor) oil” throughout the item and made minor editorial changes. The Committee maintains the status of the item as Voting. After discussing the comments from the 2012 NCWM Annual Meeting open hearings and the proposed changes, the Committee agreed to modify the language in its Interim Report to that shown in this Final Report in the Item Under Consideration.

Additional letters, presentations and data may have been part of the Committee’s consideration. To view supporting documentation, please refer to Appendix G, in the *Report of the 96th NCWM* (NIST SP 1125, 2011) and Appendices B of this report for additional content.

237-5 I Section 3.15. Biodiesel and Biodiesel Blends**Source:**

Southern Weights and Measures Association (SWMA) (2010)

Purpose:

Amend Section 3.15. Biodiesel and Biodiesel Blends of the Engine Fuels and Automotive Lubricants Regulation to remove the exemption for declaration of biodiesel content on product transfer documents for biodiesel blends up to 5 %.

Item Under Consideration:

Amend NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation, Section 3.15. Biodiesel and Biodiesel Blends.

3.15. Biodiesel and Biodiesel Blends.

3.15.1. Identification of Product. – Biodiesel shall be identified by the term “biodiesel” with the designation “B100.” Biodiesel blends shall be identified by the term “Biodiesel Blend.”

3.15.2. Labeling of Retail Dispensers.

3.15.2.1. Labeling of Grade Required. – Biodiesel shall be identified by the grades S15 or S500. Biodiesel blends shall be identified by the grades No. 1-D, No. 2-D, or No. 4-D.

3.15.2.2. EPA Labeling Requirements Also Apply. – Retailers and wholesale purchaser-consumers of biodiesel blends shall comply with EPA pump labeling requirements for sulfur under 40 CFR § 80.570.

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

3.15.2.4. Biodiesel Blends. – When biodiesel blends greater than 20 % by volume are offered by sale, each side of the dispenser where fuel can be delivered shall have a label conspicuously placed that states, “Consult Vehicle Manufacturer Fuel Recommendations.”

The lettering of this legend shall not be less than 6 mm ($\frac{1}{4}$ in) in height by 0.8 mm ($\frac{1}{32}$ in) stroke; block style letters and the color shall be in definite contrast to the background color to which it is applied.

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

(Amended 20XX)

3.15.4. Exemption.

(a) Biodiesel blends that contain less than or equal to 5 % biodiesel by volume are exempted from the requirements of Sections 3.15.1. Identification of Product, **and** 3.15.2. Labeling of Retail Dispensers, ~~and 3.15.3. Automotive Fuel Rating~~ when it is sold as “diesel fuel” as required in Section 3.3. Diesel Fuel.

(b) Diesel fuel containing less than 1 % by volume biodiesel is exempted from the requirement of 3.15.3. Documentation for Dispenser Labeling Purposes.

- (c) **Diesel fuel containing 1 % and not more than 5 % by volume biodiesel fuel is exempt from disclosing the actual percent by volume of biodiesel as required in Section 3.15.3. Documentation for Dispenser Labeling Purposes. However, the term “Contains Biodiesel” or other similar terms shall be used.**

(Amended 20XX)

(Added 2005) (Amended 2008 **and 20XX**)

Background/Discussion:

At the 2009 SWMA Annual Meeting, a discussion over blending was presented by a FALS member. Biodiesel is being blended at many terminals across the country in concentrations up to 5 %. Marketers downstream of the terminal are then attempting to blend additional biodiesel to target levels, and finding that their product is being over-blended because they were not aware that the fuel contained any biodiesel. Per Mr. Jennings, Tennessee, at least one major truck stop operator has already voiced concerns to the FALS Chairperson. This amended proposal will remove the exemption declaration of biodiesel content on product transfer documents for biodiesel blends up to 5 %. Biodiesel is blended at terminals in concentrations up to 5 %. Mr. Jennings felt it was important to start this recommendation and have the FALS Chairperson vet the proposal out to all members of the FALS Committee for their comments before the NCWM Interim meeting in January 2010. The SWMA forwarded this item to NCWM, recommending it as a Voting Item.

3.15. Biodiesel and Biodiesel Blends

3.15.1. Identification of Product. – Biodiesel shall be identified by the term “biodiesel” with the designation “B100.” Biodiesel blends shall be identified by the term “Biodiesel Blend.”

3.15.2. Labeling of Retail Dispensers.

3.15.2.1. Labeling of Grade Required. – Biodiesel shall be identified by the grades S15 or S500. Biodiesel blends shall be identified by the grades No. 1-D, No. 2-D, or No. 4-D.

3.15.2.2. EPA Labeling Requirements Also Apply. – Retailers and wholesale purchaser-consumers of biodiesel blends shall comply with EPA pump labeling requirements for sulfur under 40 CFR § 80.570.

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

3.15.2.4. Biodiesel Blends. – When biodiesel blends greater than 20 % by volume are offered by sale, each side of the dispenser where fuel can be delivered shall have a label conspicuously placed that states “Consult Vehicle Manufacturer Fuel Recommendations.”

The lettering of this legend shall not be less than 6 mm ($\frac{1}{4}$ in) in height by 0.8 mm ($\frac{1}{32}$ in) stroke; block style letters and the color shall be in definite contrast to the background color to which it is applied.

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

3.15.4. Exemption. – Biodiesel blends that contain less than or equal to 5 % biodiesel by volume are exempted from the requirements of Sections 3.15.1. Identification of Product, **and** 3.15.2. Labeling of Retail Dispensers, ~~and 3.15.3. Automotive Fuel Rating~~ when it is sold as “diesel fuel” as required in Section 3.3. Diesel Fuel.

(Added 2005) (Amended 2008 **and 20XX**)

At the 2010 NCWM Interim Meeting, Mr. Hayes, FALS Chair, gave an update on the Subcommittee’s work to remove the current exemption for biodiesel disclosure in diesel fuel at 5 % and below, on product transfer documents.

A draft of substitute language was circulated among FALS members prior to the Interim Meeting. This substitute language expanded the disclosure of biodiesel content on all transfer documents (not limited to ones to the retailer) and for levels greater than 1 % biodiesel. The substitute was an attempt to find middle ground. FALS members were more agreeable to this substitute, but many still felt more work is needed.

The L&R and FALS Committee received seven letters (refer to L&R Appendix E within the *Report of the 95th NCWM* [SP 1115, 2010]) that do not support this proposal as stated. The Committee does support working on this issue and receiving feedback from industry. There is concern with the documentation and co-mingling of fuels. If fuel is co-mingled, it would need to be sampled every time, which could be quite costly.

An official requested that this item move forward as a Voting Item and meanwhile NEWMA and CWMA could review and further develop the language at their spring 2010 meetings. API stated there are many things to consider, such as preemption language, cost implications, commercial issue of declaring with each transaction. API has worked with marketers, but there continues to be a difference of opinion and no consensus. It was voiced by industry that all biodiesel needs to be documented on the paperwork. If not, it puts the wholesaler, retailer, and consumer at risk. There was a comment from a stakeholder that they do not agree with API’s comment and that this has been a two-year battle on who gets to do the blending. Blenders are over-blending because they are not aware of what the current blend is. To prevent this situation, it would require disclosure on the transfer document. The 2010 L&R Committee designated this item as an Informational Item. At the 2010 NEWMA Annual Meeting, a stakeholder reported that the FTC has not changed the existing posting rule. NEWMA recommended that this item remain as an Informational Item.

At the 2010 CWMA Annual Meeting, there were several comments stating that the exact percentage of an alternative fuel needs to be known. Without the percentage being known, mislabeling can occur, which is not good for consumer, marketers, the environment, and renewable fuels. What is the downside of providing this information? A representative of the National Biodiesel Board (NBB) does not support this proposal and would like to have further discussions to seek what is best for the entire industry. They also commented that FTC declined to modify requirements for disclosure on product transfer documents for fuels containing 5 % or less biodiesel. A state official disagrees that the exact percentage is necessary since it is the blender’s responsibility to test the product prior to blending. A representative of the Renewable Fuels Association would like to see the proposal expanded to include all additives and stated that the focus needs to be in broader terms instead of renewable fuels and recommended that the scope include all blending components. THE CWMA recommended that item remain an Informational Item and that FALS form a task force under their guidance to develop this proposal.

At the 2010 NCWM Annual Meeting, the Committee received numerous letters (refer to Appendix E within the *Report of the 95th NCWM* [SP 1115, 2010]), and heard from fifteen stakeholders and industry representatives, supporting Section 3.15.3 that requires disclosure. Several participants expressed concerns with sections of the proposal. The FTC has the authority to protect consumers, and they are looking at requiring product transfer documents. Several stakeholders indicated that they expect FTC to issue a proposed rule on biodiesel in the near future. It would be best if we stayed in line with the FTC ruling on the biodiesel issue. The very low blends seem to be the challenge. The sections that are of concern to stakeholders are 3.15.4 (b) and (c), since it conflicts with reporting of taxes collected on biodiesel. The exact amount of the blend needs to be documented on the transfer document. The concern is when fuel is picked up from various locations and delivered; the actual amount of biodiesel is not documented. Currently blending at the terminal is not an issue.

The NCWM L&R Committee agreed to allow time for the FALS Committee to receive additional information and further discuss this item.

At the 2010 CWMA Interim Meeting, a representative from a Petroleum Marketers Association commented that disclosure sets the tone for a chain of events for biodiesel. It was important for disclosure to be provided all the way through the distribution process because of the potential for over-blending. He believes that it is not realistic for wholesale distributors to test for biodiesel due to the cost. He supports the proposal with exception of the exemptions provided in 3.15.4 Exemptions (b) and (c). A state regulator agreed with this testimony. Another state regulator commented that the current proposal follows the same format as the ethanol regulation. A petroleum dealer mentioned that due to the Renewable Fuels Standard (RFS), disclosure is needed in order to meet the mandates for blending.

A representative with the NBB commented that this proposal needs to be further developed by the FALS. This representative believes that we have not heard from all segments of the industry regarding this proposal, and also expressed concern that there will be no benefit to consumers if the cost of the extra testing of fuel is being passed on to consumers. It was mentioned that there are quick testing methods available for determining biodiesel content in the field; although, some are more accurate than others. The NBB representative also stated that the FTC believes that it is the responsibility of the blender to determine biodiesel content prior to blending.

A producer mentioned that the disclosure proposal would require terminals to purchase equipment and to do additional testing. The producer is concerned about tank stratification and the need to change bills of lading as the content varies. Cost and manpower are major concerns for producers. A marketer provided testimony that it is more efficient for terminals to purchase testing equipment as opposed to requiring all downstream blenders to purchase testing equipment. He stated that changing bills of lading is only a software change. He believes that it is the blenders' obligation to meet the law for labeling, and it is difficult if the biodiesel content is not disclosed. The NBB representative questioned how often marketers test. A marketer responded that they do not routinely test since they rely on the transfer documents to accurately state what they are getting. Another marketer stated that producers can control what goes into their tanks and questioned if producers know how much biodiesel is in each batch. A producer responded that for barrels received by water in Savannah, Georgia, the biodiesel content is only disclosed on Plantation pipeline shipments if it is more than 5 %. THE CWMA recommends that the proposal be further developed by the FALS.

At the 2010 WWMA and SWMA Annual Meeting, an industry representative spoke in support of keeping this item Informational and allow the FALS to further develop the requirements in light of the comments received. An industry representative also stated that all shipping documents should show the exact blend of biodiesel. Both Associations recommends that this item remain Informational.

At the 2010 NEWMA Interim Meeting, the L&R Committee received written comments from API. The NEWMA recommends that this item move forward as an Informational Item.

At the 2011 NCWM Interim Meeting, a member of both the FALS and L&R Committee reported that this item was debated during the FALS work sessions and a consensus could not be reached. It was agreed upon that a Biodiesel Disclosure Task Group be formed to further study this item. Steve Howell, MARC IV; and Samuel Bell, Echols Oil Company, Inc., will Co-chair this Subcommittee. The L&R Committee received five letters, yet no additional comments were received during Open Hearings. The Committee designated this as an Informational Item.

At the 2011 NEWMA Annual Meeting an NBB consultant stated that a report is currently being prepared and will be ready for the 2011 Annual NCWM meeting. The NEWMA recommended that this item move forward as a Developing Item.

At the 2011 CWMA Annual Meeting, FALS Chair, Mr. Ron Hayes, Missouri, remarked that a work group was formed under FALS to develop new language. A petroleum representative opposes the item as written and it does not allow the blender to disclose what level blending has occurred. Another petroleum representative remarked that there are other implications beyond small percentages of biodiesel with other additives. It was agreed that as blender you should know exactly what you are getting, but it needs to be tested. The question is, "Who is the

responsible party for providing the test?" The CWMA recommends that this item move forward as a Developing Item.

At the 2011 NCWM Annual Meeting, the FALS Chair reported that a Subcommittee has been formed to work out a compromise on the requirements, and a report with solutions should be prepared and available for FALS at the 2012 Interim Meeting.

At the 2011 CWMA Interim Meeting, the NBB representative stated a work group is coming up with compromise language for the 2012 NCWM Interim Meeting. The Petroleum Marketers and Convenience Stores of Iowa (PMCI) representative stated there were 137 biodiesel blenders in Iowa and the current proposed language is a real concern to blenders, especially the 5 % blenders. The marketers do not support an exemption of 5 % or less included on the product transfer documents. One state regulator agrees and suggests removing the exemption for 5 % blends stating that if percentage is known it reduces the need for downstream testing. The NBB representative countered that testing adds a lot of cost before the product reaches the consumer and that 5 % biodiesel or less meets the ASTM D975 diesel fuel specification and there is no performance difference. She also stated the current proposed language may be the best compromise that can be achieved. The state regulator stated that in her state terminals already certify how much biodiesel leaves the terminal. The NBB representative countered biodiesel was developed as a fungible product and is a drop-in fuel. Further, fungibility issues dictate that we not disclose the exact biodiesel content. The PMCI representative stated that gallons of biofuel must be reported, and the language in Item 237-3 is a compromise because his constituents did not have input into the exemption language. An energy company representative stated that Plantation Pipeline is saying diesel fuel may contain up to 5 % biodiesel. Therefore, batch certification would be required to determine content. Stratification is also a concern because even batch testing may not be indicative of the true content. The PMCI representative stated this issue is really about the renewable identification number (RIN) credit and how they are bought and sold. The NBB representative stated that weights and measures is most concerned with making sure there is equity in the marketplace and that profitability in the marketplace is left up to the market. Another state regulator questioned where the burden of analysis lies. He further stated if the blender is making a profit then it is reasonable to expect the blender to bear the cost. The FALS is currently gathering information on this item therefore the Committee recommends that the item remain Informational.

At the 2011 WWMA Annual Meeting, there were no comments heard. The WWMA would like to get a recommendation from FALS before taking further action. WWMA recommended making this item remain Informational.

At the 2011 NEWMA Interim Meeting, it was agreed that any action taken should be consistent with other federal agency labeling. NEWMA recommended keeping it an Informational item.

At the 2011 SWMA Annual Meeting, a representative of the NBB conveyed a message on behalf of the chairperson of the FALS, that it will meet before the NCWM Interim Meeting and provide a report to FALS for the NCWM L&R Committee. The SWMA recommended the item remain as an Informational Item.

FALS meet at the 2012 NCWM Interim Meeting. Mr. Sam Bell and Mr. Steve Howell, Task Group Co-Chairs provided a presentation on the updated data and study. They presented a written report to FALS on January 17, 2012. The white paper written on this item and will be posted to the FALS prior to the NCWM Annual Meeting. A plan was submitted for the activities of this task group for the next eighteen months. FALS recommended that this item remain an Informational Item.

At the 2012 NEWMA Annual Meeting, there were no comments received on this item.

At the 2012 CWMA Annual Meeting, the FALS Chair remarked the white paper on his item will be posted to FALS prior to the NCWM Annual Meeting.

At the 2012 Annual Meeting, the FALS Chair provided an update stating that Mr. Bell and Mr. Howell provided a presentation to the Subcommittee, however; there is no consensus on how to move forward with this item.

Mr. Hayes, FALS Chair, reported that work continues to progress with the task group. If you would like to participate in this Biodiesel Disclosure Task Group Subcommittee, contact Mr. Steve Howell, MARC-IV, (816) 903-6272, e-mail showell@marciv.com or Mr. Samuel Bell, Echols Oil Company, Inc., at (864) 233-6205, e-mail info@scpma.com.

Additional letters, presentations, and data may have been part of the Committee's consideration. To review the supporting documentation for this item, please refer to Appendix E, *Report of the 95th NCWM* (SP 1115, 2010), Appendix E in the *Report of the 96th NCWM* (SP 1125, 2011), and Appendix G within this document for additional content.

237-6 V Section 3.2.X. EPA Labeling Requirements Also Apply

(This item was adopted.)

Source:

Renewable Fuels Association (2012)

Purpose:

Amend NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation, Section 3. Classification and Method of Sale of Petroleum Products to recognize the mandatory label requirements included in the Environmental Protection Agency (EPA) Mis-fueling Mitigation final rule from July 25, 2011.

Item Under Consideration:

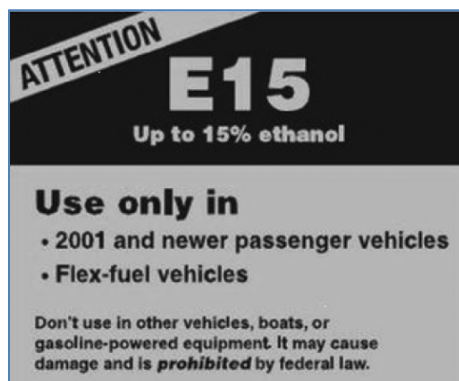
Amend the NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation as follows:

3.2.X. EPA Labeling Requirements Also Apply. – Retailers and wholesale purchaser-consumers of gasoline shall comply with the EPA pump labeling requirements for gasoline containing greater than 10 volume percent (v%) up to 15 volume percent (v%) ethanol (E15) under 40 CFR §80.1501.

(Added 2012)

Background/Discussion:

EPA included mandatory fuel dispenser labeling in the final rule. Refer to 40 CFR Part §80.1501 which included the creation of a fuel dispenser label that will be required on E15 fuel dispensers. This label informs and alerts consumers on appropriate E15 usage to avoid mis-fueling. On July 25, 2011, EPA finalized the "Regulation to Mitigate the Mis-fueling of Vehicles and Engines with Gasoline Containing Greater Than Ten Volume Percent Ethanol and Modifications to the Reformulated and Conventional Gasoline Programs." (*Federal Register* Notice Vol. 76, No. 142, Monday, July 25, 2011, Rules and Regulations) NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation, Section 3. Classification and Method of Sale of Petroleum Products includes the regulatory requirements for identification and labeling of each type of petroleum product. There is no expected cost to consumers with this amendment. The Renewable Fuels Association (RFA) is providing the appropriate fuel dispenser labels for E15 free of charge.



Based on U.S. EPA's recent action and mandatory use of a label, Renewable Fuels Association believes that NIST Handbook 130 should recognize this labeling requirement identically to the EPA mandated labeling requirement for Diesel Fuel as can be found in NIST Handbook 130, Section 3, specifically Section 3.3.2. EPA Labeling Requirements Also Apply. For convenience a copy of the label follows.

At the 2011 CWMA Interim Meeting, a representative with the RFA proposed adopting the current EPA E15 label. Two state regulators stood in support of this proposal. No other comments were heard. The

CWMA recommends moving this item forward as a Voting Item.

At the 2011 WWMA Annual Meeting, a county official commented about the term within the proposal “wholesale purchaser-consumers.” An industry/FALS representative states that the term is in currently recognized federal regulations. The WWMA L&R would like FALS to review this item at their meeting prior to the 2012 NCWM Interim Meeting. The WWMA recommends the item as an Informational Item.

At the 2011 NEWMA Interim Meeting a comment was made that this will make NIST Handbook 130 compatible with federal mandate. Numerous questions arose about the availability of E15 for retail use, the decrease of miles per gallon (mpg) with the increase in ethanol with E15, and whether or not both E10 and E15 will be available at the same Retail Motor Fuel Dispenser (RMFD) when E15 is made available. There were also questions about consumer confusion when E15 becomes available. NEWMA recommends that the item is an Informational Item.

At the 2012 NCWM Interim Meeting, Mr. Bob Reynolds, Downstream Alternatives, Inc., recommended this item be moved forward as a Voting Item so that it matches what is already in Federal law. Mr. Hayes, FALS Chair, recommended to the L&R Committee that they move this item forward as a Voting Item. An industry representative expressed support for this item but inquired to why it was limited to E15? An official remarked that there has been no final ruling from EPA. Mr. Hayes responded to the questions by stating that this EPA labeling requirement is one of several steps that are necessary for final approval of E15 and addressing EPA labeling is consistent with referencing other EPA and FTC labeling in the model regulations for other fuels. An industry representative questioned why NCWM has this issue before them if it is under EPA enforcement. The Committee recommends this be a Voting Item with minor editorial corrections.

The NEWMA and CWMA both support this item during their spring meetings and recommended adoption by the NCWM.

At the 2012 NCWM Annual Meeting, Mr. Chuck Corr, Archer Daniels Midland, spoke in support of this item because it recognizes federal regulations and provides clarity.

237-7 V Section 4. Retail Storage Tanks and Dispenser Filters

(This item was adopted.)

Source:

Missouri Department of Agriculture (2012)

Purpose:

Update regulation to address sensitivity of today’s engines to water content in fuel by amending NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation, Sections 4.1. Water in Gasoline-Alcohol Blends, Aviation Blends, Biodiesel Blends, E85 Fuel Ethanol, Aviation Gasoline, and Aviation Turbine Fuel and 4.2. Water in Gasoline, Diesel, Gasoline-Ether, and Other Fuels.

Item Under Consideration:

Amend NIST Handbook 130 as follows:

Section 4. Retail Storage Tanks and Dispenser Filters

4.1. Water in Gasoline-Alcohol Blends, ~~Aviation Blends~~, Biodiesel Blends, E85 Fuel Ethanol, Aviation Gasoline, and Aviation Turbine Fuel. – No water phase greater than 6 mm (¼ in) as determined by an appropriate detection paste or other acceptable means, is allowed to accumulate in any tank utilized in the storage of gasoline-alcohol blend, biodiesel, biodiesel blends, E85 fuel ethanol, aviation gasoline, and aviation turbine fuel.

(Amended 2008 and 2012)

4.2. Water in Gasoline, Diesel, Gasoline-Ether, and Other Fuels. – Water shall not exceed 25 mm (1 in) in depth when measured with water indicating paste or other acceptable means in any tank utilized in the storage of diesel, gasoline, gasoline-ether blends, and kerosene sold at retail except as required in Section 4.1. Water in Gasoline-Alcohol Blends, ~~Aviation Blends~~, Biodiesel Blends, E85 Fuel Ethanol, Aviation Gasoline, and Aviation Turbine Fuel. ~~(consider all fuels at ¼ inch maximum water)~~
(Amended 2008 and 2012)

Background/Discussion:

The current language in this section may no longer be appropriate for today's fuels. Engine manufactures and oil companies have demonstrated that today's vehicles are prone to damage with fuels in contact with water.

At the 2011 CWMA Interim Meeting, it was noted that the purpose portion of the proposal as submitted is incorrect. It should read "Amend Section 4." Considerable discussion regarding the maximum allowable water content was heard. Due to concerns expressed in the hearing, the submitter would like to develop language for further consideration. The CWMA L&R Committee believes that language needs to be developed before this proposal can be considered. The CWMA recommends this as a Developing Item.

At the 2011 WWMA Annual Meeting, there was a comment that it may be misleading to include dispenser filters in this section. The WWMA reviewed and discussed this with a FALS member and modified the proposal as stated below and recommends the item as a Voting Item.

4.1. Water in Gasoline-Alcohol Blends, ~~Aviation Blends~~, Biodiesel Blends, E85 Fuel Ethanol, Aviation Gasoline, and Aviation Turbine Fuel. – No water phase greater than 6 mm (¼ in) as determined by an appropriate detection paste or other acceptable means, is allowed to accumulate in any tank utilized in the storage of gasoline-alcohol blend, biodiesel, biodiesel blends, E85 fuel ethanol, aviation gasoline, and aviation turbine fuel.
(Amended 2008 and 20XX)

4.2. Water in Gasoline, Diesel, Gasoline-Ether, and Other Fuels. – Water shall not exceed ~~25 mm (1 in)~~ **6 mm (¼ in)** in depth when measured with water indicating paste or other acceptable means in any tank utilized in the storage of diesel, gasoline, gasoline-ether blends, and kerosene sold at retail except as required in Section 4.1. Water in Gasoline-Alcohol Blends, ~~Aviation Blends~~, Biodiesel Blends, E85 Fuel Ethanol, Aviation Gasoline, and Aviation Turbine Fuel.
(Amended 2008 and 20XX)

At the 2011 NEWMA Interim Meeting no comments were recorded and the Committee recommends the item be assigned as a Developing Item.

At the 2011 SWMA Annual Meeting, an industry representative and member of FALS stated that no one knows what "aviation blends" means so he recommends striking its reference. The Committee believes that clearer language and continued discussion need to occur with this item and recommend placing it as a Developing Item.

At the NCWM 2012 Interim Meeting, Mr. Hayes, FALS Chair, commented that FALS recommends moving this forward as a Voting Item with a language modification to Section 4.2. to remove the statement "consider all fuels at ¼ in maximum water." A consultant remarked that there needs to be a reference point. A state official questioned whether Sections 4.1. and 4.2. would be inconsistent if the statement is removed. An industry official commented that there seems to be a logical inconsistency in that ¼ in really means zero and is not measurable. The Committee recommends this as a Voting Item with the term "aviation blends" and the statement "consider all fuels at ¼ in maximum water" in Section 4.2. be removed.

The NEWMA and CWMA both supported this item and recommended adoption by the NCWM during their spring 2012 Annual Meetings.

At the 2012 NCWM Annual Meeting, Mr. Hayes clarified that this item to remove the term “aviation blends.” A stakeholder suggested that the term “E85 fuel ethanol” be changed to “Ethanol Flex Fuel.” Currently, the FALS is tasked with addressing terms within NIST Handbook 130 for flex fuels (refer to Item 237-11).

Additional letters, presentations, and data may have been part of the Committee’s consideration. To review the supporting documentation for this item, please refer to Appendix J within this document.

237-8 I Section 4.3. Dispenser Filters.

Source:

Missouri Department of Agriculture (2012)

Purpose:

Amend NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation Section 4.3.1. Engine Fuel Dispenser Filters

Item Under Consideration:

Amend NIST Handbook 130 as follows:

4.3. Dispenser Filters.

4.3.1. Engine Fuel Dispensers.

- (a) All gasoline, gasoline-alcohol blends, gasoline-ether blends, biodiesel, biodiesel blends, diesel, E85 fuel ethanol and M85 methanol dispensers shall have a 10 micron or smaller nominal pore-sized filter.
- (b) All ~~biodiesel, biodiesel blends, diesel, and~~ kerosene dispensers shall have a 30 micron or smaller nominal pore-sized filter.

(Added 2008) (Amended 20XX)

Background/Discussion:

Thirty (30) micron filters provide virtually no protection to current diesel vehicles on the road today. The high pressure common rail diesel engines require 10 micron to 3 micron filters on board. Current dispensers with 30 micron filters are similar to having no filters according to engine manufacturers.

In 2007, the FALS recommended all diesel fuel, biodiesel, and biodiesel blend dispensers must be equipped with a 10 micron or smaller nominal pore-sized filter. During the voting session, an oil company representative stated that his company’s stations were equipped with 30 micron filters and suggested this be amended to this size. The L&R Committee decided to amend this section to ensure passage of the entire item as many urgent changes were being considered in the Engine Fuels and Automotive Lubricants Regulation.

Abnormal dispenser filter plugging at retail will alert the retailer of potential storage tank problems. Requiring 10 micron filters for all products will reduce the inventory and the potential of installing the wrong filter for all products at the same site.

At the 2011 CWMA Interim Meeting, a state regulator commented that a smaller porosity filter may be acceptable but for now this is a reasonable start. The CWMA supports moving the item forward as a Voting Item.

At the 2011 WWMA Annual Meeting, need was expressed for more technical information, and there were concerns that the flow rate would be diminished, the size of the filter may need to increase, and coupled with biodiesel it would tend to clog the filter in colder climates. Because of these reasons the WWMA L&R Committee did not believe there was sufficient data to justify addressing this issue. The WWMA recommends that the submitter provide additional studies and technical documents to support this proposal. It is recommended that the item be Withdrawn.

At the 2011 NEWMA Interim Meeting, questions were raised as to whether or not “measurement” of filter content was within the ability of weights and measures officials. It was noted that better filters may enhance fuel quality. The Committee believes that the proposal has potential, given input from industry and NCWM members. NEWMA forwarded the item to NCWM, recommending it as a Developing Item.

At the 2011 SWMA Annual Meeting, an industry representative stated that standard retailer dispensers use a 10 micron filter, and high capacity dispensers use 30 micron filters (i.e., diesel dispensed at truck stops). The company’s engineers have determined that reducing a 30 micron filter to a 10 micron filter will drastically reduce flow rate to trucks. Another industry representative agreed and re-iterated that truck stops would see a tremendous reduction in flow. The SWMA L&R Committee believes this proposal is not practical and would have a negative impact and undue burden on the trucking industry. The SWMA recommends this item be Withdrawn.

At the 2012 NCWM Interim Meeting, Mr. Hayes informed the L&R Committee that FALS recommended this item be Informational because of industry concerns that the 10 micron filters would be too restrictive of flow in high-flow systems. One industry representative expressed opposition for the use of 10 micron filters and recommends this item to be Withdrawn. A representative of an automobile manufacturer claimed diesel passenger vehicles do not have the sophisticated filtration systems commonly found on commercial duty vehicles and 10 micron filters on dispensers are needed for protection from particulate contamination. As proposed, this item could cause clogging of diesel dispenser filters in colder climates. The L&R Committee believes this item has merit but lacks a consensus and also believes that FALS needs to address these concerns. Therefore, the 2012 L&R Committee designated this item as an Informational Item and assigned it to FALS for further development.

The NEWMA and CWMA, during their spring Annual Meetings, both support his item and recommended adoption by the NCWM.

At the 2012 NCWM Annual, several stakeholders spoke in opposition on this item. Mr. Hayes remarked that FALS worked on this item in 2007 and believes FALS needs to continue to work on this item. The NCWM L&R Committee also believes that this item is not ready and supports the continued work of the FALS.

Additional letters, presentations, and data may have been part of the Committee’s consideration. To review the supporting documentation for this item, please refer Appendix H within this document for additional content.

237-9 V Section 2.XX. Requirements for Hydrogen Fuel

(This item was adopted.)

Source:

Western Weights and Measures Association and U.S. National Work Group on Hydrogen (2009 Developing Item)

Purpose:

Adopt engine fuel quality requirements for hydrogen in NIST Handbook 130 to address gaseous hydrogen refueling applications.

Item Under Consideration:

Amend the NIST Handbook 130, Engine Fuels and Automotive Lubricants Regulation as follows:

2.17. Hydrogen Fuel. – Shall meet the most recent version of SAE J2719, “Hydrogen Fuel Quality for Fuel Cell Vehicles.”

(Added 20XX)

Background/Discussion:

Twenty-four states have hydrogen refueling dispensers in operation. Hydrogen stations using permanent and mobile refueling systems for automobiles, fleet vehicles (buses), forklifts, and airport totes are increasing and may go unnoticed. Many stakeholders, who are not familiar with the weights and measures standards process, will need to

participate at this stage before it becomes a commercial application. This effort by the USNHWG for the Development of Commercial Hydrogen Measurement Standards is to ensure there are appropriate standards and test procedures in place in time for dispenser manufacturers, service agencies, and officials to educate the general public, not if, but when, retail hydrogen applications become commercially available.

Existing codes do not fully address hydrogen refueling applications because of hydrogen's properties and other technical differences in the setup and operations of dispensing systems. The development of legal metrology standards for newly emerging hydrogen technology is a necessary component of the hydrogen infrastructure. The weights and measures community must have time to consider requirements for hydrogen-refueling systems before this application is available for public access at corner service stations.

In 2009, the USNHWG first brought proposals for equipment, method of sale, and fuel quality requirements before the weights and measures community to share this information about upcoming standards for an emerging technology. The simultaneous development of the code and corresponding test procedures continues to allow for input from the weights and measures and hydrogen communities, appropriate trials of the standards, and to address all areas of concerns early in the standards development process. A specification table listing the maximum permissible levels of constituents for hydrogen fuel quality was developed by the USNHWG based on the fuel quality standard adopted by California until such time as nationally recognized standard was available.

This item was reviewed at the WWMA and SWMA 2008 Annual Meetings and at the NEWMA 2008 Interim Meeting. NEWMA members generally discussed the "hydrogen issue" and its usage in the marketplace. It is anticipated that hydrogen at first will be relegated to "fleet vehicles" (such as compressed natural gas [CNG]), and that retail sales will be slow in coming to the marketplace. These associations forwarded the item to NCWM, recommending it as a Developing Item.

At the 2009 Interim and Annual Meetings, the NIST Technical Advisor briefed the Committee on work that the USNHWG Fuel Specifications Subcommittee (FSS) has done to date (refer to Appendix J in the *Report of the 94th NCWM* [SP 1099, 2009]).

At the WWMA 2009 Annual Meeting, industry representatives acknowledged that some details of the specifications for fuel standards are in development. The WWMA Committee believed it is best to be proactive on this item so that hydrogen stations can be prepared for retail sales.

At the SWMA 2009 Annual Meeting, a state recommended that the test methods be published as they are developed. The state also requested that documentation be produced on the effects of hydrogen if certain property values listed in the table "Hydrogen Fuel Quality Specification," are exceeded and why this is important in the testing of hydrogen.

There were no comments heard on this proposal at the CWMA 2009 Interim Meeting.

NEWMA reviewed this proposal at their 2009 Interim Meeting and recommended leaving this as a Developing Item.

At the NCWM 2010 Interim Meeting, the NIST Technical Advisor provided an updated Table 1. Hydrogen Fuel Quality Specification (refer to L&R Appendix B in the *Report of the 95th NCWM* [SP 1115, 2010]) that amends the chart to identify which Standards Committee is actively working on the test method under development. The 2010 L&R Committee designated this item as an Informational Item.

At the 2010 NEWMA and CWMA Annual Meetings, no comments were received on this item. Both associations are recommended that this remain as an Informational Item.

At the 2010 NCWM Annual Meeting, Mr. Jennings, Tennessee Department of Agriculture informed the Conference that the ASTM is actively working on a hydrogen specification. Until further developed by ASTM, there is nothing that can be done on this item. Mr. Jennings would also like to provide users with information on what the significance is of each property.

At the 2010 CWMA Interim, a representative of the USNHWG provided an update on ASTM efforts to establish test methods. An industry representative provided information that some of the specifications of the SAE standard contained parameters that could not be measured by the current test methods. A ballot cannot take place at ASTM until these test methods are established, and test methods will take some time to develop. The CWMA recommended that the item remain as an Informational Item to be further developed by the NCWM FALS due to their expertise in this area.

At the 2010 WWMA Annual Meeting, a state official, who is also a member of the USNHWG, recommended that this item be split into two separate proposals. One proposal would address “Specifications for Hydrogen Fuel for Internal Combustion Engines and Fuel Cells,” and the other item would address “Definitions” with the existing language and definitions as recommended by the USNHWG FSS. The state official reported that the USNHWG has worked on definitions and that moving the terms to a vote would help move the implementation and acceptance of hydrogen. “Specifications” could take years to develop. The WWMA L&R Committee agreed with the recommendation in having the definitions as a separate item (refer to Item 237-2 [237-10 in the 2012 NCWM Annual Report). The WWMA recommends that this item remain as an Informational Item.

At the 2010 SWMA Annual Meeting, the NIST Technical Advisor informed the group that the WWMA recommended to separate the fuel specifications from the definitions. The SWMA Committee with that recommendation. The SWMA recommended that the item remain as an Informational Item.

At the 2010 NEWMA Interim Meeting, there were no comments on this item. NEWMA recommended that the item remain as an Informational Item. The recommendation for the definitions is documented in Item 237-2 (Item 237-10 in the 2012 NCWM Annual Report).

Property		Value	Unit	Limit	Test Method(s)	Responsible Standards Committee and Status of test method
1	Ammonia	0.1	ppm v/v	Maximum	ASTM D7653-10	
2	Carbon Dioxide	2.0	ppm v/v	Maximum	ASTM D7653-10 ASTM D7649-10	
3	Carbon Monoxide	0.2	ppm v/v	Maximum	ASTM D7653-10	
4	Formaldehyde	0.01	ppm v/v	Maximum	ASTM D7653-10	
5	Formic Acid	0.2	ppm v/v	Maximum	ASTM D7550-09 ASTM D7653-10	
6	Helium	300.0	ppm v/v		to be specified	ASTM D03.14
7	Hydrogen Fuel Index	99.97	% (a)		to be specified	
8	Nitrogen and Argon	100.0	ppm v/v		ASTM D7649-10	
9	Oxygen	5.0	ppm v/v	Maximum	ASTM D7649-10	
10	Particulate Concentration	1.0	mg/kg	Maximum	ASTM D7650-10 ASTM D7651-10	
11	Total Allowable Non-Hydrogen, Non-Helium, Non-Particulate constituents	100.0	ppm v/v	Maximum	to be specified	
12	Total Non-Hydrogen Gases	300.0	ppm v/v (b)	Maximum	to be specified	
13	Total Halogenated Compounds	0.05	ppm v/v	Maximum	to be specified	WK 23815 under ASTM D03.14

Table 1. Hydrogen Fuel Quality Specifications*						
Property	Value	Unit	Limit	Test Method(s)	Responsible Standards Committee and Status of test method	
14	Total Hydrocarbons	2.0	ppm v/v (c)	Maximum	to be specified	WK 22378 under ASTM D03.14
15	Total Sulfur Compounds	0.004	ppm v/v	Maximum	to be specified	WK 24073 under ASTM D03.14
16	Water	5.0	ppm v/v	Maximum	ASTM D7653-10 ASTM D7649-10	
Footnotes to Table 1:						
a. Hydrogen fuel index is the value obtained with the value of total gases (%) subtracted from 100 %.						
b. Total Gases = Sum of all impurities listed on the table except particulates.						
c. Total Hydrocarbons may exceed 2 ppm v/v only due to the presence of methane, provided that the total gases do not exceed 300 ppm v/v.						
*The FTC's Fuel Rating Rule (16 CFR Part 309) see the requirements in "Labeling of Alternative Fuels" at business.ftc.gov/documents/bus29-labeling-alternative-fueled-vehicles ; requires dispensers to bear a declaration of minimum percent of hydrogen determined, according to test methods described in "Standard Test Method for Analysis of Natural Gas by Gas Chromatography" (ASTM D1946).						
						Updated 1/20/2011

At the 2011 NCWM Interim Meeting, the NIST Technical Advisor submitted an updated Table 1. Hydrogen Fuel Quality Specification that was received from the USNHWG. The USNHWG also submitted the following updated specifications for the allowable level of the constituents listed in Table 1. Hydrogen Fuel Quality Specifications and corresponding standardized procedures for collecting and measuring each constituent are now available for: Ammonia [1], Carbon Dioxide [2], Carbon Monoxide [3], Formaldehyde [4], Formic Acid [5], Nitrogen and Argon [8], Oxygen [9], Particulate Concentration [10], and Water [16]. The next stage in the development of these standards is to round robin the methods to establish precision and bias. Standard Test Methods for Sulfur [15] and Hydrocarbons [14] will be made available shortly since these standards are in publishing. ASTM Subcommittee D03.14 on Hydrogen and Fuel Cells has tentative plans for sending the standards for Helium [6] and Halogenates [13] to ballot in March 2011. The Committee recommends that the item remain Informational.

At the 2011 CWMA Interim Meeting, a state regulator supported moving the item forward because we now have ASTM test methods for hydrogen. An industry representative countered that additional work is necessary by the Hydrogen Work Group. Specifically, there is concern the specifications may be too restrictive and questioned if the limits actually fall within the scope of the test methods. After discussion, the Committee agreed that additional work is needed by the work group. The CWMA recommended that the item remain as an Information Item.

At the 2011 NEWMA and CWMA Annual Meetings, an updated specifications chart was reviewed. Both Regions are recommending this item move forward as an Informational Item until further developed by the USNHWG.

At the 2011 NCWM Annual Meeting, a revised chart updated on July 12, 2011, was distributed. It was noted by a representative of the USNHWG that the previous color coded chart was eliminated since only one constituent remains to be completed. The Committee is in agreement that the revised chart move forward as an Information item. The work on the test method for total halogenated compounds is anticipated to be completed by spring 2012 (refer to Item 237-1 in the *Report of the 96th NCWM* [SP 1125, 2011]).

At the 2011 WWMA Annual Meeting, Ms. Macey, spoke on behalf of the USNHWG, and California stating there is still work being done on this item. Ms. Macey noted that this item is ready for a vote. The WWMA Committee fully supports this item. If updates are received from the USNHWG, the WWMA Committee would like the NCWM L&R Committee to have editorial privileges with any updated information on standards that are received. The WWMA Committee fully supported any work done by the USNHWG. It is recommended that this item be a Voting Item.

At the 2011 NEWMA Interim Meeting, Mr. Collins, UTC Power gave a presentation on “Background on SAE J2719 Hydrogen Quality for Fuel Cell Vehicles.” NEWMA recommended that the item remain as an Informational Item.

At the 2011 SWMA Annual Meeting, the NIST Technical Advisor to the USNHWG reported that the USNHWG recommended that Table 1 be deleted with a statement that makes reference to SAE International Standard J2719. This direct reference to an SAE fuel quality standard for hydrogen is proposed to entirely replace the previous table that had been developed by the USNHWG. SAE J2719 includes the constituents, maximum allowable levels and the effects of these compounds, definitions, a list of research papers supporting the document’s development, and corresponding ASTM test methods. The USNHWG had developed the table to be harmonized with the developing SAE J2719 standard and as an interim measure until there was a nationally recognized standard. SAE J2719 has been approved for publication, a NIST Handbook 130 standard by direct reference to SAE J2719 is preferred by the FSS to facilitate continued harmonization with the SAE standard and to reflect the precedence of directly referencing SAE and ASTM standards that is set by other fuel quality standards found in Section 2. Standard Fuel Specifications (e.g., Gasoline and Gasoline-Oxygenated Blends, Diesel Fuel, Aviation Turbine Fuels, LPG, CNG, etc.).

The USNHWG supports the addition of the single sentence direct reference to SAE J2719 to NIST Handbook 130 for the purpose of meeting the need in the market place for uniformity in hydrogen fuel quality. Publication of the SAE J2719 standard was published in September 2011. The USNHWG will continue to accept input and work on this item as needed until NCWM interim meeting in January 2012. The SWMA recommended that the item be a Voting Item with the following changes as recommended by the USNHWG.

The recommended change is:

2.X. Hydrogen Fuel. – Shall meet the most recent version of SAE J2719, “Hydrogen Fuel Quality for Fuel Cell Vehicles.”

At the 2012 NCWM Interim Meeting, the Technical Advisor to the USNHWG reported that the language appearing in the 2011 WWMA report has been approved by the USNHWG and encourages the Committee to move it forward as a Voting Item. The USNHWG recommended that the status of Item 237-10 not be dependent on the outcome of Item 237-9. The 2912 L&R Committee designated this item as a Voting Item.

Both NEWMA and CWMA supported this item and recommended its adoption by the NCWM during their spring 2012 Annual Meetings.

At the 2012 Annual Meeting, Ms. Juana Williams, NIST Technical Advisor to the DOE NIST USNHWG remarked that the USNHWG agrees that SAE J2719 is the appropriate fuel standard for hydrogen. This is consistent with national and international standards.

Additional information on this hydrogen proposal and the corresponding method of sale regulation and hydrogen gas measuring devices code can be found at www.nist.gov/pml/wmd/lmdg/hydrogen.cfm. For additional information on this item, contact Ms. Juana Williams, NIST OWM at juana.williams@nist.gov or (301) 975-3989.

Additional letters, presentations, and data may have been part of the Committee’s consideration. To review the supporting documentation for this item, please refer to Appendix J of the *Report of the 94th NCWM* (SP 1099, 2009) L&R Committee Item 270-4, Appendix B in the *Report of the 95th NCWM* [SP 1115, 2010] L&R Committee Items 232-3 and 237-2, *Report of the 96th NCWM* (SP1125, 2011) L&R Committee Items 237-1 and 237-2, and Appendix I in this report.

237-10 V Section 1. Definitions, Hydrogen Fuel for Internal Combustion Engines and Fuel Cell Vehicles

(This item was adopted.)

Source:

Western Weights and Measures Association (WWMA). This item was previously within Item 237-1.

Purpose:

Adopt definitions for hydrogen fuel, internal combustion engine, and fuel cell.

Item Under Consideration:

In April 2009, the U.S. National Work Group (USNWG) for the Development of Commercial Hydrogen Measurement Standards Fuel Specifications Subcommittee (FSS) presented the following recommended definitions for consideration.

FSS supports the proposed new definitions to address gaseous hydrogen refueling applications.

1. Specification for Hydrogen Fuel for Internal Combustion Engines and Fuel Cells
2. Definitions

1.21. Fuel Cell. – An electrochemical energy conversion device in which fuel and an oxidant react to generate electricity without consumption, physically or chemically, of its electrodes or electrolytes.

(Added 2012)

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

(Added 2012)

1.30. Internal Combustion Engine. – A device used to generate power by converting chemical energy bound in the fuel via spark-ignition or compression ignition combustion into mechanical work to power a vehicle or other device.

(Added 2012)

Background/Discussion:

This proposal was reviewed at all the fall regional meetings under Item 237-1. At the 2010 WWMA and SWMA Annual Meetings and the 2010 NEWMA Interim Meeting, the regional associations made the recommendation to have the definitions for hydrogen fuel for internal combustion engines and fuel cell vehicles considered as separate items. The regional associations are recommending this item move forward as a Voting Item. (Refer to Item 237-1 above for additional background information)

At the 2011 NCWM Interim Meeting, a NIST Technical Advisor reported that the USNHWG and the 2011 L&R Committee supported this item as a Voting Item and recommended the item be adopted by the NCWM.

At the 2011 NEWMA and CWMA Annual Meetings, no comments were heard on this item. The NEWMA and the CWMA recommended that this item move forward as a Voting Item.

At the 2011 NCWM Annual Meeting, an official spoke in support of this item, and there was no additional comments heard. During the voting session, it was asked if online comments were reviewed for additional language changes, and the Committee Chair responded that the online comments were reviewed by the Committee.

Prior to the voting session, it was recommended that the definition for **hydrogen fuel** be amended to the language submitted by Mr. Simnick (refer to *Report of the 96th NCWM* [SP1125, 2011]). A representative of the USNHWG remarked that the substitution of the word molecular for chemical is questionable; accordingly they would like to

take the language back to the USNHWG for additional review and study. An official requested that the L&R Committee remove this item from Voting status and return to Informational status. The L&R Committee agreed that additional review is required by the USNHWG. The 2011 L&R Committee removed the item from the voting calendar and designated it as an Informational Item prior to a vote.

At the 2011 WWMA Annual Meeting, Ms. Macey spoke on behalf of California and the USNHWG in support of this item to move forward as a vote. The WWMA Committee fully supported the work of the USNHWG. WWMA recommended that the item remain a Voting Item with the following revisions.

Final updated or revised proposal recommended by the WWMA:

1.XX. Fuel Cell. – An electrochemical energy conversion device in which fuel and an oxidant react to generate energy electricity without any consumption, physically or chemically, of its electrodes or electrolytes.

(Added 20XX)

1.XX. Hydrogen Fuel. – A fuel composed of the chemical molecular hydrogen intended for consumption in a surface vehicle or electricity production device with an internal combustion engine or fuel cell.

(Added 20XX)

1.XX. Internal Combustion Engine. – A device used to generate power by converting chemical energy bound in the fuel via spark-ignition or compression ignition combustion into mechanical work to power a vehicle or other device.

(Added 20XX)

At the 2011 NEWMA Interim Meeting, the Committee supported definitions as submitted. NEWMA recommended that the item remain as a Voting Item.

The 2011 SWMA Committee supports the latest work of USNHWG. The SWMA recommended that the item remain as a Voting Item with the recommendations that appear in the 2011 WWMA Annual Report.

At the 2012 NCWM Interim Meeting, the Committee reviewed the language that appears in NCWM Publication 15 (2012).

1.XX. Fuel Cell. – An electrochemical energy conversion device in which fuel and an oxidant react to generate energy without consumption of its electrodes or electrolytes.

(Added 20XX)

1.XX. Hydrogen Fuel. – A fuel composed of the chemical hydrogen intended for consumption in a surface vehicle with an internal combustion engine or fuel cell.

(Added 20XX)

1.XX. Internal Combustion Engine. – A device used to generate power by converting chemical energy bound in the fuel into mechanical work to power a vehicle.

(Added 20XX)

The NIST Technical Advisor commented that the language the work group submitted at the 2011 WWMA has been approved and reviewed by the USNHWG with a recommendation that it move forward as a Voting Item. The USNHWG also recommended that the status of Item 237-10 not be dependent on the outcome of Item 237-9. The 2012 L&R Committee designated this item as a Voting Item.

Both NEWMA and the CWMA support the language from the WWMA and recommended adoption by the NCWM during their spring 2012 Annual Meetings. The NIST Technical advisor noted at the CWMA meeting that an editorial change to the definition “hydrogen fuel” needs to be made to remove the word “the.”

At the 2012 NCWM Annual Meeting, the NIST Technical Advisor to the USNHWG noted that an editorial change for the definition of hydrogen fuel needs to be made by removing the word “the” in front of “molecular.” After discussing the comments from the 2012 NCWM Annual Meeting Open Hearings and the proposed changes, the Committee agreed to modify the language in its Interim Report to that shown in this Final Report in the Item Under Consideration

Additional background information on this proposal is available in the *Report of the 94th NCWM* (SP 1099, 2009) L&R Committee Item 270-4 and Appendix J, *Report of the 95th NCWM* (SP 1115, 2010) L&R Committee Items 232-3 and 237-2, and Appendix B, and *Report of the 96th NCWM* (SP1125, 2011) L&R Committee Items 237-1 and 237-2. To review more current documentation on this item, please refer to Appendix I in this report.

Additional information on this hydrogen proposal and the corresponding method of sale regulation and hydrogen gas measuring devices code can be found at www.nist.gov/pml/wmd/lmdg/hydrogen.cfm. For additional information on this item, contact Ms. Juana Williams, NIST, OWM at juana.williams@nist.gov or (301) 975-3989.

237-11 I Section X.X. Flex Fuel Vehicles

Source:

Fuels and Lubricants Subcommittee Task Group (2012)

Purpose:

A number of changes have occurred related to fuels restricted to use in Flex Fuel Vehicles. Fuels Lubricants Subcommittee (FALS) has formed a task group to begin the review of NIST Handbook 130 related to these flex fuels. FALS will develop proposed modifications to NIST Handbook 130.

Item Under Consideration:

Proposal to be developed.

Background/Discussion:

The current wording in NIST Handbook 130 related to fuels restricted to use in Flex Fuel Vehicles should be reviewed. Input gathered from the regional meetings and other stakeholders will be utilized by FALS to develop recommended modifications to NIST Handbook 130.

At the 2011 CWMA and NEWMA Interim Meeting, there were no comments. The CWMA and NEWMA forwarded the item to NCWM recommending it as a Developing Item while FALS continues its work.

At the 2011 WWMA Annual Meeting, WWMA forwarded the item to NCWM recommending it as an Informational Item.

At the 2011 SWMA Annual Meeting, Mr. Chuck Corr, Archer Daniels Midland Company, gave a presentation on the topic. FALS task force identified several areas where stakeholder input is needed to propose updates to NIST Handbook 130 and to reflect new language in ASTM D5798. No comments were made during the hearing. FALS is expected to have a recommendation for the Interim Meeting. The SWMA forwarded the item to NCWM recommending it as a Developing Item.

At the 2012 NCWM Interim Meeting, Mr. Ron Hayes, FALS Chair provided an update on the task group’s progress. Mr. Corr will lead an effort to get Regional input on a transition and implementation date. The 2012 L&R Committee designated this item as an Informational Item.

At the 2012 NEWMA Annual Meeting, no comments were received. The NEWMA recommended this remain an Informational Item.

At the 2012 CWMA Annual Meeting, Mr. Corr provided a presentation on “Flex Fuel Task Force Update.” This presentation noted that ASTM standards D7794-12 and D5798-11 cover the standard for a full range of ethanol concentrations. Several comments were received that the 51 % to 83 % ethanol range is too broad. A state regulator was concerned with blends at the pumps; the fuel can be blended at any percentage. A stakeholder remarked that consumers are concerned with price and miles per gallon (MPG) and may not have enough knowledge in regards to blends. Another stakeholder remarked that ASTM 5798 is at the terminal and the Conference needs to address this issue. The CWMA recommends that FALS continue to develop this item.

At the 2012 NCWM Annual Meeting, Mr. Corr provided a FALS update that in Handbook 130 approximately 18 areas have been identified where modifications may be needed. A stakeholder commented that they fully support the work of Mr. Corr’s Subcommittee working on this issue through FALS. Mr. Corr’s group is to provide additional information at the 2013 NCWM Interim Meeting.

Additional letters, presentations, and data may have been part of the Committee’s consideration. To review the supporting documentation for this item, please refer to Appendix J in this document for additional content.

250 NIST HANBOOK 130 - NCWN POLICY, INTERPRETATIONS, AND GUIDELINES, SECTION 2, EXCERPTS FROM NCWM PUBLICATION 3

250-1 W Section 2.7. Technology Difference of Standards

(This item was withdrawn.)

Source:

Total Meter Services (2012)

Purpose:

Address potential differences between verification results of meters using vapor capture prover apparatus and verification results using non-vapor capture proving apparatus, such as open-neck provers.

Item Under Consideration:

Add the following new section to NIST Handbook 130, Interpretations and Guidelines:

2.X. Technology Differences of Standards Differences in technology of standards used can lead to differences in verification results. For example: A volumetric standard that captures vapor during the device verification process may not yield the same result as an open volumetric vessel standard where vapors may be lost.

(Added 20XX)

Background/Discussion:

Evaporation Capture Provers – Small volume provers, displacer/piston type, that connect directly to the meter discharge have no evaporation losses associated with the device verification process. Consideration needs to be made of potential differences between verification results of meters using vapor capture prover apparatus and verification results using non-vapor capture proving apparatus, such as open-neck provers.

A. Vapor Losses During Dispensing (or Open Neck Proving)

The liquid losses from emissions or vapor losses associated with retail gasoline dispensing range from 1 in³ to 3 in³ per 5 gal, 0.09 % to 0.26 %. The actual number varies based on the fuel chemistry that can be adjusted for seasons, the temperature of the dispensing, and the amount of alcohol added. The losses are actually greater in winter due to fuel chemistry adjustments.

The range of vapor losses comes from studies by the California Air Resources Board, the EPA, and Measurement Canada.

Vapor Losses from Gasoline Dispensing (Liquid Equivalent)				
Source of Data	Pounds	Gallons	Cubic Inches per Gallon	Cubic Inches per 5 Gallon
California Air Res Board Study 2008 – Summer RVP 6	0.0058	0.0010	0.2196	1.098
California Air Res Board Study 2008 – Winter RVP 12	0.0092	0.0015	0.3484	1.742
EPA 2008 Trans and Mkt Petro liq vapor 5.2 Avg	0.0110	0.0018	0.4162	2.081
Measurement Canada Low (converted from metric)			0.1658	0.829
Measurement Canada High (converted from metric)			0.5939	2.969

These documented vapor losses are the same quantities of losses that occur during an open neck proving. The Canadian study is a direct comparison of vapor capture and non-vapor capture proving technologies.

B. Vapor Capture Proving Simulates the Current Refueling Process

When used for gasoline dispenser verifications and calibrations, vapor capture provers most closely resemble the current automobile refueling process.

Since 2000, automobiles sold in the United States have on-board vapor capture systems, On-board Refueling Vapor System (ORVR). Vapors associated with the fueling process are captured on the vehicle. Stage II vapor recovery on the dispenser that normally returns vapor to the underground tank is defeated at the nozzle in preference to the on-board recovery system.

Definitions:

On-board Refueling Vapor Systems (ORVR). – This equipment prevents vapors from escaping to the atmosphere during the fueling process, allows them to condensate, return back to liquid and re-enter the consumer’s automobile fuel tank.

On-board Refueling Vapor Systems (ORVR) Nozzle. – Dispenser nozzle that senses the ORVR system and allows the on-board canister to capture refueling vapors instead of the Dispenser/Tank vapor recovery system.

Stage II Vapor Recover. – The Stage II system consists of special nozzles and coaxial hoses at each gasoline dispenser that captures vapors from the vehicle's fuel tank and routes them to the station's underground or aboveground storage tank(s) during the refueling process.

Details:

Around 1997, the EPA amended the Regulations to force U.S. automakers to build in to the fill pipe and fuel tank a carbon canister vapor recovery system, the ORVR System. This equipment prevents vapors from escaping to the atmosphere during the fueling process, allows them to condensate, return back to liquid and re-enter the consumer’s automobile fuel tank. As a result, the consumer takes possession of the vapors that were once vented into the air or captured by the Stage II Vapor Recovery System.

The EPA phased in the rollout schedule as follows:

- 40 % of all United States’ 1998 auto production must have ORVR equipment installed;
- 80 % of all United States’ 1999 auto production must have ORVR equipment installed; and
- 100 % of all United States’ model year 2001, and years forward, auto production must have ORVR equipment installed.

The EPA authorized large metropolitan areas to calculate the population of total vehicles on the road in the non-attainment areas and let them phase out Stage II Vapor Recovery at the dispenser as the population of ORVR equipped vehicles becomes the standard in their respective geographical area.

The EPA is currently taking comments on a proposal to waive Stage II requirements as of June 30, 2013. They estimate 73 % of vehicles on the road will have ORVR by that date. (Reference: EPA Fact Sheet 20110711)

The State of New York has suspended enforcement of Stage II Vapor Recovery because of the prevalence of ORVR. (Reference: Stage II Vapor Collection System Enforcement Discretion Directive, May 25, 2011)

C. “Predominately Negative”

Field Inspectors in some cases have guidelines or rules for addressing the predominance of a dispensing location. If most dispensers register less than the inspector’s verification standard volume, “negative” results, some action may be taken by the inspector, even though the results are in tolerance. If the inspector’s visit comes after a calibration by the service company using the vapor capture/closed loop prover, the “predominately negative” site is not due to a purposeful “mis-calibration” of the dispensers, but the difference between the verification technologies. The range of difference may be one-cubic inch to three-cubic inches as noted in the studies.

At the 2011 CWMA Interim Meeting, several state regulators agreed that this item is not ready to be developed until NIST, OWM makes a determination on whether this can be a traceable standard. Another state regulator commented that the proving method should matches the way the product is sold. A third regulator did not like the terminology and does not want the item moved forward. An independent consultant stated the need to show traceability. Because NIST, OWM does not recognize this as a traceable standard, the CWMA recommends the item be Withdrawn.

At the 2011 NEWMA Interim Meeting, concerns were raised about having two different methods to ascertain whether or not RMFDs were within tolerance if the results yielded different readings. There should not be two different standards. NEWMA Committee recommended that more study be conducted into the efficacy of this technology when considering the current method of testing RMFDs with open neck provers. NEWMA forwarded the item to NCWM recommending it as a Developing Item.

At the 2012 Interim Meeting, the original submitter withdrew this item. Ms. Carol Hockert, NIST, OWM Chief remarked that a meeting was held earlier in the week to gathered data and information on alternative test methods for liquid devices, and it was agreed at that session that this item would be removed from the L&R Agenda. As additional information and data is gathered on this technology the NIST, OWM will send a notice in regards to forming a work group.

260 NIST HANDBOOK 133

260-1 W Handbook 133, Section 2.3.8. Moisture Allowance - Moisture Loss for Products Not Listed.

Source:

Moisture Loss Work Group (MLWG) (2011)

Purpose:

Provide additional guidance for making moisture allowances for products not listed in Handbook 133.

Item Under Consideration:

Amend NIST Handbook 133 as follows:

2.3.8. Moisture Allowances

e. How is moisture loss handled for products not listed in NIST Handbook 133?

Officials can test products for which no moisture loss guidance has been provided. If studies are a necessity, they should be a collaborative effort between officials and industry. Because of the potential impact on interstate commerce, studies should be completed on a nationwide basis and not by individual jurisdictions unless circumstances justify only local consideration.

The amount of moisture loss from a package is a function of many factors, not the least of which is the product itself (e.g., moisture content, texture and density), packaging, storage conditions (e.g., temperature, humidity, and air flow), time, handling and others. If a packaged product is subject to moisture loss, officials must allow for “reasonable” variations caused by moisture either evaporating or draining from the product. Officials cannot set arbitrary moisture allowances based solely on their experience or intuition. Moisture allowances must be based on scientific data and must be “reasonable.” Reasonable does not mean that all of the weight loss caused by moisture evaporation or draining from the product must be allowed. As a result of product and moisture variability, the approach used by an official must be developed on a case-by-case basis depending on many factors to include, but not be limited to, the manufacturing process, packaging materials, distribution, environmental influence and the anticipated shelf life of the product.

NIST Handbook 130 provides a starting point for developing a workable procedure in the Interpretation and Guideline Section 2.5.6. regarding “Resolution for Requests for Recognition of Moisture Loss in Other Packaged Products.” Most studies involving nationally distributed products will require that products be tested during different seasons of the year and in different geographic locations to develop a nationally recognized moisture allowance. Some studies may require the development of laboratory tests used for inter-laboratory comparisons to establish moisture content in products at time of pack or at the time of inspection.

Moisture loss or gain is a critical consideration for any net content enforcement effort and one that, in most cases, cannot be addressed solely by a field official. If moisture loss issues are to be deliberated, it is the regulatory official’s responsibility to resolve the packer’s concern utilizing available resources and due process procedures. To fulfill this obligation the official may be required to utilize specialized test equipment and specific laboratory procedures. Additionally, the collection of adequate test data may require product examination over a broad geographical area and consideration of a wide range of environmental factors. If a national effort is required, a coordinated effort involving industry, trade associations, weights and measures officials, and federal agencies may be required. NIST will provide technical support upon request. If studies are a necessity they should be a collaborative effort between officials and industry but may be very time consuming depending on the product. Because of the potential impact on interstate commerce, studies must be completed on a nationwide basis and not by individual jurisdictions unless circumstances justify only local consideration.

Background/Discussion:

In previous years, the Moisture Loss Work Group (MLWG) reviewed draft changes that were developed to revise and update Handbook 133 (2005). Some of the proposed changes and recommendations were developed to improve the guidance on making moisture allowances. At the 2010 NCWM Annual Meeting, Item 260-1 (refer to the *Report of the 95th NCWM* [SP 1115, 2010]) was voted through the Conference with the exception of the item under of consideration.

At the 2010 CWMA Interim Meeting, a state regulator stated that Handbook 133 provides moisture allowance for only a few products. The regulator provided an example where a product was claiming moisture allowance for a product not contained in Handbook 133. This regulator was provided with only verbal assistance from NIST regarding what was needed to demonstrate the request for moisture allowance. The regulator believes written procedures need to be developed to provide guidance, and a step-by-step protocol developed for determining moisture allowance in a specific product. Another state regulator agreed and commented that determination of moisture allowance needs to be consistent. An industry representative agreed that more guidance is needed, and recommended that the proposal include the necessary information required to demonstrate moisture loss that warrants an allowance. The CWMA recommends that the MLWG continue to develop this proposal.

At the 2010 WWMA Annual Meeting, a county official expressed concern that the existing language is conflicting and does not provide specific guidance to weights and measures officials (i.e., statements that moisture loss should be determined on a case-by-case basis and at the same time calls for a nationwide study). It was recommended that the MLWG focus its effort on developing a clearer criteria and process for determining moisture loss. The WWMA agrees that the following language within the proposal is contradictory and vague and does not provide specific guidance to officials.

- should be a collaborative effort between officials and industry
- should be completed on a nationwide basis
- must be based on scientific data
- must be developed on a case-by-case basis
- may be required to utilize specialized test equipment and specific laboratory procedure
- a coordinated effort involving industry, trade associations, weights and measures officials may be required

The WWMA recommends that this be a Developing Item.

At both the 2010 SWMA Annual Meeting and the 2010 NEWMA Interim Meeting, both associations agreed that the item was not developed and recommended that this moved forward as a Developing Item.

At the 2011 NCWM Interim Meeting, the NIST Technical Advisor gave an update that the Handbook 133 had amendments that were voted in at the July 2010 Annual Meeting. However, the item under consideration was pulled back for further development by the MLWG. A state official commented that the MLWG needs to continue to develop this item. The L&R Committee would like to receive additional input from the regional associations. The NIST Technical Advisor will set up a MLWG meeting at the 2011 NCWM Annual Meeting. The 2011 L&R Committee designated this item as an Informational Item.

At the 2011 NEWMA Annual Meeting, the NIST Technical Advisor requested information from the region on how they would like to proceed on this item. Currently, the item under consideration stipulates store, data, and test procedures. NEWMA recommends that this item move forward as an Informational Item.

At the 2011 CWMA Annual Meeting, a state representative remarked that current moisture loss issues with a company cannot be resolved due to lack of guidance for proper determination. They would like to see an emphasis on national studies and not case-by-case situations. There were recommendations to form a work group or get an organization involved that can assist. This region would like to see an easy, implementable solution on how to demonstrate moisture loss. The CWMA would like to see a moisture loss determination for products not currently listed in NIST Handbook 133. For this reason, the CWMA would like to see this as an Informational Item.

At the 2011 NCWM Annual Meeting, a representative of Kraft Foods supported this as an Informational Item. Kraft will be providing NCWM with additional draft language for consideration. It is important that the language be clear as to who is to provide data, what purpose does the data serve, and is it for a specific product on a national or state level. Kraft will develop a detailed proposal to look at a few more principles of establishing moisture allowance. They will also provide recommendations on guidance for four areas in establishing moisture allowance in order to assist inspectors. The NIST Technical Advisor indicated that additional work needs to be done on this item and asks that comments be submitted from the fall regional meetings.

At the 2011 CWMA Interim Meeting, no comments were received, and the CWMA recommended the item remain as an Informational Item.

At the 2011 WWMA Annual Meeting, Mr. Chris Guay, Procter and Gamble Co., commented that moisture loss allowance needs to be addressed by NCWM. A procedure needs to be developed that is acceptable to both industry and regulators. A county official opposes the item as written but believes that the MLWG should continue to work and develop an acceptable procedure. The NIST Technical Advisor recommended that each region submit

information to the MLWG regarding what they would like to see. There is an item under consideration and no comments or recommendations have been received for MLWG to develop. The WWMA acknowledges that this item has been on the agenda for several years and no additional comments or recommendations for changes have been brought forward. The WWMA recommended that this item be Withdrawn so that a better prepared proposal may come forward.

At the 2011 NEWMA Interim Meeting, NEWMA recommended that this item be Withdrawn as there is insufficient data to support it.

At the 2011 SWMA Annual Meeting, a NIST Technical Advisor noted that this is not a NIST, OWM work group but a NCWM work group, and it is in need of a new Chair. No other comments were made from the floor. There is value in developing a process whether states decide individually to use it, or whether it is used as a tool for bringing items before NCWM for national consideration and uniformity. Regions are being asked to provide input. The SWMA recommends the item remain as an Informational Item until a new work group chair can be identified.

At the 2012 NCWM Interim Meeting, the Committee discussed that this item has been reviewed by the regions for last two years, and there have not been any amendments to the item under consideration. An industry representative recommended that the current language be deleted and this item be worked on to provide guidelines.

The language in this item should not remain on the agenda, but the work group needs to have a Chair nominated and the work group to be active. The 2012 L&R Committee designated this item as a Withdrawn Item and is placing a Developing Item 270-3 on the agenda to activate the work group. The L&R Chair, Ms. Judy Cardin will request that the NCWM Chair appoint a new Chair for this work group.

260-2 V HB 133, Section 2.3.8 Moisture Allowance - Pasta Products

(This item neither passed or failed and was returned to the Committee.)

Source:

Southern Weights and Measures Association (SWMA)

Purpose:

Amend HB 133 by adopting a 3 % moisture allowance for macaroni, noodle, and like products (pasta products).

Item Under Consideration:

Amend NIST Handbook 133, Section 1.2.(5)a. Package Requirements as follows:

a. Why and when do we allow for moisture loss or gain?

This handbook provides “moisture allowances” for some meat and poultry products, flour, **pasta products**, and dry pet food. (See Chapter 2, Table 2-3. “Moisture Allowances”) These allowances are based on the premise that when the average net weight of a sample is found to be less than the labeled weight, but not by an amount that exceeds the allowable limit, either the lot is declared to be within the moisture allowance or more information must be collected before deciding lot compliance or noncompliance.

Test procedures for flour, **pasta products**, some meat, and poultry are based on the concept of a “moisture allowance” also known as a “gray area” or “no decision” area (see Section 2.3.9. “Calculations”). When the average net weight of a sample is found to be less than the labeled weight, but not more than the boundary of the “gray area,” the lot is said to be in the “gray” or “no decision” area. The gray area is not a tolerance. More information must be collected before lot compliance or noncompliance can be decided. Appropriate enforcement should be taken on packages found short weight and outside of the “moisture allowance” or “gray area.”

(Amended 2002 **and 20XX**)

Amend NIST Handbook 133, Section 2.3.8.b. Moisture Allowances as follows:

- b. What are the moisture allowances for flour, dry pet food, pasta products, and other products?** (See Table 2-3. “Moisture Allowances.”)

Table 2-3. Moisture Allowances		
Verifying the labeled net weight of package of:	Moisture Allowance is:	Notes
Flour	3 %	
Dry pet food	3 %	Dry pet food means all extruded dog and cat foods and baked treats packaged in Kraft paper bags and/or cardboard boxes with a moisture content of 13 % or less at time of pack.
<u>Pasta Products</u>	<u>3 %</u>	<u>Pasta products means all macaroni, noodle, and like products packaged in Kraft paper bags, paperboard cartons, and/or flexible plastic bags with a moisture content of 13 % or less at the time of pack.</u>
Borax	See Section 2.4.	
Wet Tare Only¹		
Fresh poultry	3 %	Fresh poultry is defined as poultry above a temperature of – 3 °C (26 °F) that yields or gives when pushed with the thumb.
Franks or hot dogs	2.5 %	
Bacon, fresh sausage, and luncheon meats	0 %	For packages of bacon, fresh sausage, and luncheon meats, there is no moisture allowance if there is no free-flowing liquid or absorbent material in contact with the product and the package is cleaned of clinging material. Luncheon meats are any cooked sausage product, loaves, jellied products, cured products, and any sliced sandwich-style meat. This does not include whole hams, briskets, roasts, turkeys, or chickens requiring further preparation to be made into ready-to-eat sliced product. When there is no free-flowing liquid inside the package and there are no absorbent materials in contact with the product, Wet Tare and Used Dried Tare are equivalent.
¹ Wet tare procedures must not be used to verify the labeled net weight of packages of meat and poultry packed at an official United States Department of Agriculture (USDA) facility and bearing a USDA seal of inspection. The Food Safety and Inspection Service (FSIS) adopted specific sections of the 2005 4 th Edition of NIST HB 133 by reference in 2008 but not the “wet tare” method for determining net weight compliance. FSIS considers the free-flowing liquids in packages of meat and poultry products, including single-ingredient, raw poultry products, to be integral components of these products (see Federal Register, September 9, 2008 [Volume 73, Number 175] [Final Rule – pages 52189-52193]).		

(Amended 2010, **and 20XX**)

Amend NIST Handbook 133, Sections 2.3.9.b. and d. Calculations as follows:

- b. How is a Moisture Allowance made prior to determining package errors?**

If the Moisture Allowance is known in advance (e.g., flour, pasta products, and dry pet food), it can be applied by adjusting the Nominal Gross Weight (NGW) used to determine the sample package errors. The Moisture Allowance (MA) in Box 13a is subtracted from the NGW to obtain an Adjusted Nominal Gross

Weight (ANGW) which is entered in Box 14. The NGW is the sum of the Labeled Net Quantity of Contents (LNQC e.g., 907 g) and the Average Tare Weight (ATW) from Box 13.

(Amended 20XX)

d. What should you do when a sample is in the moisture allowance (gray) area?

This handbook provides “moisture allowances” for some meat and poultry products, flour, **pasta products**, and dry pet food. These allowances are based on the premise that when the average net weight of a sample is found to be less than the labeled weight, but not by an amount that exceeds the allowable limit, either the lot is declared to be within the moisture allowance or further investigation can be conducted.

Reasonable variations from net quantity of contents caused by the loss or gain of moisture from the package are permitted when caused by ordinary and customary exposure to conditions that occur under good distribution practices. If evidence is obtained and documented to prove that the lot was shipped from the packaging plant in a short-weight condition or was distributed under inappropriate or damaging distribution practices, appropriate enforcement action should be taken.

(Amended 2010 **and 20XX**)

Background/Discussion:

Studies indicate that moisture loss for pasta products is reasonably predictable over time. Pasta exhibits consistent moisture loss in all environments and packaging, which can vary more than 4 % due to environmental and geographic conditions. Although it eventually reaches equilibrium with the surrounding atmosphere because it is hygroscopic, this balance does not occur until long after packaging and shipping.

At the 2010 NCWM Interim Meeting, the Committee heard support for this item from industry and stakeholders. This item would amend the Moisture Allowance Table in NIST Handbook 133 giving pasta a 3 % moisture allowance. The Committee reviewed the submitted study (refer to the *Report of the 95th NCWM* [SP 1115, 2010]). The 2010 L&R Committee designated this item as a Voting Item.

At the 2010 NEWMA Annual Meeting a representative of the pasta industry gave the group an explanation of the item and expressed support for this item as written. NEWMA Committee also supports this item.

At the 2010 CWMA Annual Meeting, a representative from the National Pasta Association stated the data supports the 3 % moisture allowance. A weights and measures official commented that testing in their state does not support the proposal. An industry representative stated that guidance is needed for an established moisture allowance, and currently, there are no guidelines to establish the moisture loss percentage.

At the 2010 NCWM Annual Meeting, a representative for the National Pasta Association spoke on behalf of the proposal. This item will allow for a specific moisture loss percentage to be taken. Inspectors will now have a specific number that they can apply to the pasta product. Representatives of several pasta companies spoke in support of this item stating that it is consistent with numerous studies that have been done. A state director opposes this item, since pasta is known to have moisture loss due to the type of product it is. He further explained that applying a blanket 3 % moisture loss does not make sense, what may be good in Florida may not be good in New Mexico. Another official stated that applying the 3 % does not stop an inspector from going into a distribution or point of pack to inspect; especially if the inspectors believe the packer is under filling packages. He urged that this proposal be supported to provide a tool. Another official felt that the proposal should be voted through, it is important to recognize guidelines for consideration. A pasta association representative also agreed that this work goes back a couple of decades, and that several studies were provided for consideration. Another representative explained that they pack to net weight. Pasta contains 10 % to 13 % moisture; if the moisture standard is lowered the product falls apart along with the product quality. There was a split vote on this item at the 2010 NCWM Annual Meeting, and it was returned to the Committee.

At the 2010 CWMA Interim Meeting, a state regulator provided information regarding informal testing of pasta products in their state. The concern is pasta can gain moisture as well as lose moisture; therefore, they oppose a national moisture allowance for pasta products. It was further explained that moisture loss/gain seems to be

dependent upon the type of packaging used. This regulator also commented that product is no longer warehoused for long periods of time, and that it is mostly in climate controlled stores, which would prevent the need for a moisture allowance. Another state regulator agreed that a national standard may not be appropriate due to humidity differences from state to state. The CWMA is recommending that this item be Withdrawn.

At the 2010 WWMA Annual Meeting, a state official expressed support for adopting a 3 % moisture allowance for pasta, citing the significant work done and data provided by the National Pasta Association. The WWMA Committee recommended that any additional data from studies be provided for review. The WWMA also recommended that the item remain as a Voting item.

At the 2010 SWMA Annual Meeting, there were no comments heard on this item. The SWMA recommended this item be Withdrawn. However, if further studies are developed, then this should be taken into consideration.

At the 2010 NEWMA Interim Meeting, the Conference expressed strong reservations about this proposal. Comments were heard regarding industry practices in regards to moisture loss when packing and if there is a need to codify the moisture loss allowance at all. A member commented that if this proposal passed, other industries would now approach the Conference and ask for specific moisture allowances for their products. NEWMA recommends that this item be Withdrawn.

At the 2011 NCWM Interim Meeting, the National Pasta Association presented an overview regarding history and studies that have been performed on the moisture loss of pasta. Pasta is a hygroscopic product, and changes in moisture content in the product may occur in the package due to atmospheric changes. Hot, dry, and air conditioned store environments have less humidity and will pull moisture from the product. Subsequently, tropical, wet and high humidity environments (seldom seen in U.S. stores) will pull moisture into the product. According to Ms. Jayne Hoover, American Italian Pasta Company, pasta companies do pack to the law and have documented weight control programs. The 2011 L&R Committee designated this item as a Voting Item.

At the 2011 NEWMA Annual Meeting, a representative of the National Pasta Association gave a briefing on the history of this item. The representative stated that pasta is a mixture of flour and water, and that a moisture loss allowance was granted through the Conference for flour. She noted that packages are filled to weight. However, in the distribution process they may lose weight. Some states argued that they cannot support this item, given that the data reflects inconsistent loss. There was a question regarding whether the courts specify that you must grant a percentage when you consider moisture loss. NEWMA recommends that this item be Withdrawn and moisture allowance not be considered for pasta.

At the CWMA Annual Meeting, a state official opposed this item stating that with proper storage and limited items on a store shelf; moisture loss is not an issue. A representative with the National Pasta Association (NPA) stated that within the legal framework, the law requires that reasonable variations due to moisture loss be considered. There is a legal obligation to allow for reasonable variation under good distribution and manufacturing practices. The NPA has made available the pasta study that they believe continues to remain valid. The makeup of the product and the packaging has not changed, in fact, it is moisture that is adding or subtracting weight in the package. A state official questions whether 3 % is the correct number to use and would like to see a bell curve of data. Another state official would like to see data from NPA on whether moisture is different at separate points within the distribution points and shelf life. There was concern expressed that an average is taken rather than taking into account the different regional areas within the United States. A stakeholder remarked that this is a complex issue; however, we need to keep the solution simple. One strategy would be to define what is necessary to demonstrate moisture loss. Several states commented they are having issues resolving current moisture loss with companies due to lack of guidance on the procedure for proper determination. The CWMA recommended the item be an Informational Item.

At the 2011 NCWM Annual Meeting, a representative from the NPA gave a presentation with background information and a brief legal overview on moisture loss. They also distributed a page with frequently asked questions and a follow-up study (refer to Appendix I in the *Report of the 96th NCWM* [SP 1125, 2011]) that occurred in 2006 - 2007 shows a 2.5 % to 5 % moisture loss. Pasta consists of flour and water. Currently in NIST Handbook 133 flour is given a moisture loss allowance of 3 %. Pasta is packaged in either breathable film or paperboard cartons. This allows for the pasta to breathe and not mold. The industry is requesting that this proposal

be adopted by the Conference to give officials the guidance that is needed when performing inspections. On a split vote this item was returned to the Committee.

At the 2011 CWMA Interim Meeting, an industry representative stated that a uniform procedure for moisture loss is needed. Although difficult, we can develop a surrogate that can be easily done by manufacturers and easily verified by weights and measures and recommends this item be Withdrawn. The CWMA disagreed and believes that moisture loss is a legitimate issue and deserves consideration by NCWM. The CWMA recommended this item remain as a Voting Item.

At the 2011 WWMA Annual Meeting, a state official requested additional information concerning good manufacturing and distribution processes. The WWMA firmly believed that enough data had been established by industry to address questions regarding moisture allowances with pasta and pasta products. The WWMA recommended that this item remain as a Voting item.

At the 2011 NEWMA Annual Meeting, it was noted that NEWMA continues to oppose this item and would like the item Withdrawn from the agenda.

At the 2011 SWMA Annual Meeting, no comments were heard. The Committee noted that it appears as if proper protocol has been followed by the pasta industry. If the states do not support this item, SWMA recommended that the reason be provided so their issue(s) can be addressed. The SWMA recommended that the item remain as a Voting Item.

At the 2012 Interim, the Committee reviewed documents received from the NPA. A representative with the American Italian Pasta Company supported the language as presented. A county inspector, which has an active package inspection program, remarked that a significant amount of data has been provided by the NPA. The 2012 L&R Committee designated this item as a Voting Item.

The NEWMA and CWMA, during their spring 2012 Annual Meetings, both support this item and recommended adoption by the NCWM. At both regional meetings, Ms. Hoover representing the NPA gave a presentation on the development of this item. She also addressed some frequently asked questions regarding variability and current data. Both regions had several regulators that rose to oppose this item.

At the 2012 NCWM Annual Meeting, Ms. Hoover provided an overview on grey area, current data, and variability. Ms. Hoover urged the need for uniformity in the marketplace. Another pasta representative remarked that Congress established that it is important to keep in mind the grey area. The grey area is not a tolerance and moisture loss does not cause the product to be short weight. Several state representatives spoke in support of this item. Two state regulators oppose this item and noted that it should be dealt with on a case-by-case basis. On a split vote this item was returned to the Committee.

Additional letters, presentations, and data may have been part of the committee's consideration. To review the supporting documentation for this item, please refer to Appendix K, *Report of the 95th NCWM* (SP 1115, 2010), Appendix I, *Report of the 96th NCWM* (SP 1125, 2011), and Appendix K within this document for additional content.

260-3 I HB 133, Section 3.10. Animal Bedding

Source:

Central Weights and Measures Association (2012)

Purpose:

This proposal is to clarify appropriate test procedures for animal bedding.

Item Under Consideration:

Amend NIST Handbook 133, Test Procedures – For Packages Labeled by Volume as follows:

3.10. Mulch, and Soils, and Animal Bedding Labeled by Volume

a. What products are defined as mulch and soil, and animal bedding?

- Mulch is defined as “any product or material except peat or peat moss that is advertised, offered for sale, or sold for primary use as a horticultural, above-ground dressing, for decoration, moisture control, weed control, erosion control, temperature control, or other similar purposes.”
- Soil is defined as “any product or material, except peat or peat moss that is advertised or offered for sale, or sold for primary use as a horticultural growing media, soil amendment, and/or soil replacement.”
- Animal bedding as “animal bedding of all kinds, except for baled straw.”

b. What type of measurement equipment is needed to test packages of mulch, and soil, and animal bedding?

- A test measure appropriate for the package size that meets the specifications for test measures in Table 3-4. “Specifications for Test Measures for Mulch, and Soils, and Animal Bedding”
- Drop cloth/polyethylene sheeting for catching overflow of material
- Level (at least 15 cm [6 in] in length)

Table 3-4. Specifications for Test Measures for Mulch, Soils and Animal Bedding						
Nominal Capacity of Test Measure ⁴	Actual Volume of the Measure ⁴	Interior Wall Dimensions ¹			Marked Intervals on Interior Wall ³	Volume Equivalent of Marked Intervals
		Length	Width	Height ²		
30.2 L (1.07 cu ft) for testing packages that contain less than 28.3 L (1 cu ft or 25.7 dry qt)	31.9 L (1.13 cu ft)	213.4 mm (8.4 in)	203.2mm (8 in)	736.6 mm (29 in)	12.7 mm (½ in)	524.3 mL (32 in ³)
28.3 L (1 cu ft)	28.3 L (1 cu ft)	304.8 mm (12 in)	304.8 mm (12 in)	304.8 mm (12 in)		1179.8 mL (72 in ³)
56.6 L (2 cu ft)	63.7 L (2.25 cu ft)	304.8 mm (12 in)	304.8 mm (12 in)	685.8 mm (27 in)		
		406.4 mm (16 in)	228.6 mm (9 in)	685.8 mm (27 in)		
84.9 L (3 cu ft)	92 L (3.25 cu ft)	304.8 mm (12 in)	304.8 mm (12 in)	990.6 mm (39 in)		
		406.4 mm (16 in)	228.6 mm (9 in)	990.6 mm (39 in)		

Table 3-4.
Specifications for Test Measures for Mulch, Soils and Animal Bedding

Measures are typically constructed of 1.27 cm (½ in) marine plywood. A transparent sidewall is useful for determining the level of fill, but must be reinforced if it is not thick enough to resist distortion. If the measure has a clear front, place the level gage at the back (inside) of the measure so that the markings are read over the top of the mulch.

Notes

¹Other interior dimensions are acceptable if the test measure approximates the configuration of the package under test and does not exceed a base configuration of the package cross-section.

²The height of the test measure may be reduced, but this will limit the volume of the package that can be tested.

³When lines are marked in boxes, they should extend to all four sides of the measure if possible to improve readability. It is recommended that a line indicating the MAV level also be marked to reduce the possibility of reading errors when the level of the mulch is at or near the MAV.

⁴The Nominal Capacity is given to identify the size of packages that can be tested in a single measurement using the dry measure with the listed dimensions. It is based on the most common package sizes of mulch in the marketplace. If the measures are built to the dimensions shown above the actual volume will be larger than the nominal volume so that plus errors (overfill) can be measured accurately.

(Amended 2010)

c. How is it determined if the packages meet the package requirements?

Use the following procedure:

Steps:

1. Follow the Section 2.3.1. "Define the Inspection Lot." Use a "Category A" sampling plan in the inspection, and select a random sample, then use the following procedure to determine lot conformance.
2. Open each package in turn. Empty the contents of the package into a test measure and level the contents by hand. Do not rock, shake, drop, rotate, or tamp the test measure. Read the horizontal marks to determine package net volume.

Notes: Mulch: Some types of mulch are susceptible to clumping and compacting. Take steps to ensure that the material is loose and free flowing when placed into the test measure. Gently roll the bag before opening to reduce the clumping and compaction of material.

Compressed state animal bedding: To measure the usable volume, first empty the contents of the package on a drop cloth. Using your hands, or a tool if necessary, loosen the material until it is free of all clumps and compaction. When the product is free flowing, place in test measure. To determine volume of the compressed state animal bedding, follow section 3.9.a. Peat Moss, procedures for testing the volume of compressed peat moss.

3. Exercise care in leveling the surface of the mulch/soil/**animal bedding** and determine the volume reading from a position that minimizes errors caused by parallax.

d. How are package errors determined?

Determine package errors by subtracting the labeled volume from the package net volume in the measure. Record each package error.

$$\text{Package Error} = \text{Package Net Volume} - \text{Labeled Volume}$$

Evaluation of Results

Follow the procedures in Section 2.3.7. “Evaluating Results” to determine lot conformance.

Note: In accordance with Appendix A, Table 2-10. Exceptions to the Maximum Allowable Variations for Textiles, Polyethylene Sheeting and Film, Mulch and Soil Labeled by Volume, Packaged Firewood and Packages Labeled by Count with 50 Items or Fewer, apply an MAV of 5 % of the declared quantity to mulch and soil sold by volume. When testing mulch, ~~and~~ soil, and animal bedding with a net quantity in terms of volume, one package out of every 12 in the sample may exceed the 5 % MAV (e.g., one in a sample of 12 packages; two in a sample of 24 packages; four in a sample of 48 packages). However, the sample must meet the average requirement of the “Category A” Sampling Plan.

Background/Discussion:

NIST Handbook 130, Uniform Regulation for the Method of Sale, Section 2.23. Animal Bedding states:

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, liter, or milliliter and by the 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: 250 mL expands to 500 mL (500 in³ expands to 1000 in³).
(Added 1990)

However, NIST Handbook 133 does not include specific procedures for testing animal bedding volume declarations, compressed state quantity declarations, or usable quantity declarations. This proposal is to clarify appropriate test procedures for animal bedding.

At the 2011 CWMA Interim Meeting, the CWMA recommended in move this item to a Voting Item.

At the 2012 NCWM Interim Meeting, the Committee made minor editorial changes to align with the format and language currently in NIST Handbook 133. The submitter had the word “uncompressed” added under the note section within “Evaluation of Results.” The Committee agreed and recommended the removal of the word “uncompressed.”

This proposal includes adopting both the mulch and soil test method and the evaluation of results for animal bedding. The method of evaluating results for mulch and soil testing includes an exception to the maximum allowed variation: the MAV is 5 %, and one package out of a 12 item samples (2 packages in 24 item sample, 4 packages in a 48 item sample) is allowed to exceed the MAV. However, the sample must meet the average requirement of “Category A.” This MAV exception for mulch and soil was developed based on a study of mulch and soil test results. The Committee will ask industry to submit animal bedding product information and test data to determine if the MAV exception is appropriate for animal bedding

An animal bedding industry representative was supportive of the 5 % allowance and also recommended a 12 × 12 × 12 cubic foot vessel. The submitter of the proposal has been using the mulch test procedure to test animal bedding and has not had issues using the procedure under the item for consideration. The 2012 L&R Committee designated this item as an Informational Item.

At the 2012 NEWMA Annual Meeting, the NEWMA L&R Committee received no comments.

At the 2012 CWMA Annual Meeting, the author, Ms. Judy Cardin, Wisconsin, provided an update that there is no current standard for animal bedding, subsequently industry is using a variety of test methods and are producing various results. She is encouraging the states to test animal bedding and to share data with NIST, OWM.

At the 2012 NCWM Annual Meeting, the L&R Committee requested that regulators and industry conduct animal bedding package testing, and submit their test results to judy.cardin@wi.gov or to david.sefcik@nist.gov. Preliminary analysis by NIST, OWM of available test data indicates that an exception for MAV is necessary for this product, but the Committee needs additional test data to determine the appropriate amount for that exception.

260-4 V HB 133, Chapter 4.7. Polyethylene Sheeting - Test Procedure - Footnote Step 3

(This item was adopted.)

Source:

Western Weights and Measures Association (WWMA)

Purpose:

Update NIST Handbook 133, Chapter 4.7. Polyethylene Sheeting – Test Procedure to provide new density values for heavier density plastics that are currently in the marketplace.

Polyethylene bags labeled as High Density (HDPE) or similar language have been found to package products whose labeled net weights meet calculated target net weights when employing a density factor of 0.92 g/cm³. When a density factor of 0.95 g/cm³ is used, as appropriate, in the calculation for high density polyethylene materials, these products commonly fail to meet the calculated target net weight. Further testing of these packages of polyethylene bags reveals that one or more of the labeled width, thickness, or count statements are inaccurate. HDPE product distributors that place a net weight statement on their packages based upon the Linear Low Density Polyethylene (LLDP) density value (0.92 g/cm³), have an approximately 3 % advantage over the distributor that uses the correct, high density, factor.

Item Under Consideration:

Amend the asterisked footnote below Step 3 as follows:

Amend NIST Handbook 133, Section 4.7. Polyethylene Sheeting, Step 3. footnote as follows:

***~~Determined~~ Defined** by ASTM Standard **D150503**, “Standard Test Method for Density of Plastics by the Density-Gradient Technique.” **(2010 or latest issue) and ASTM Standard D883, Standard Terminology Relating to Plastics (2011 or latest issue)**

For the purpose of this regulation, the minimum density **for linear low density (D) polyethylene plastics (LLDPE)** shall be 0.92 g/cm³ (when D is not known).

For the purpose of this regulation, the minimum density for linear medium density (D) polyethylene plastics (LMDPE) shall be 0.93 g/cm³ (when D is not known).

For the purpose of this regulation, the minimum density for ~~linear~~ high density (D) polyethylene plastics (HDPE) shall be 0.94 g/cm³ (when D is not known).

Background/Discussion:

A proposal was presented at the WWMA 2009 Annual Meeting indicating that manufacturers and distributors of polyethylene bags labeled as “High Density” or HDPE have been found to package products whose labeled net weights meet calculated target net weights when employing a density factor of 0.92 g/cm³. When a density factor of 0.95 g/cm³ is used, as appropriate, in the calculation for high density polyethylene materials, these products commonly fail to meet the calculated target net weight. Further testing of these packages of polyethylene bags reveals that one or more of the labeled width, thickness, or count statements are inaccurate.

For example, a box of HDPE has stated dimensions of 24 in × 40 in × 0.4 mil, and a count of 250. Using the only density factor found in NIST Handbook 133, 0.92 g/cm³, the calculated target net weight, and that shown on the label, would be 6.38 lbs. If using the actual density factor for the HDPE bags of 0.95 g/cm³, the target net weight would be 6.59 lb. This means that HDPE product distributors that place a net weight statement on their packages

based upon the Linear Low Density Polyethylene (LLDP) density value (0.92 g/cm³), have an approximately 3 % advantage over the distributor that uses the correct, high density, factor.

When the original testing procedure was developed, HDPE bags had not yet entered the marketplace. Currently, this product is quite prevalent in the United States. Amending the test procedure will aid weights and measures inspectors in enforcing labeling requirements that allow true value comparisons and close a loophole within NIST Handbook 133.

Original Proposal:

*Determined by ASTM Standard D 1505-98 (**or latest issue**) “Standard Method of Test for Density of Plastics by the Density Gradient Technique.” For the purpose of this handbook, **when the actual density is not known**, the minimum density **used to calculate the target net weight** shall be 0.92 g/cm³ **when the actual density is not known. For products labeled “High Density, HDPE, or similar wording, the minimum density (d) used to calculate the target net weight shall be 0.95 g/cm³.”**

The 2009 WWMA Association supported this item and forwarded the item to the NCWM recommending it as a Voting Item.

NEWMA reviewed this item at their 2009 Interim Meeting. NEWMA forwarded this item to NCWM recommending it as a Developing Item.

At the NCWM 2010 Interim Meeting comments were heard on this item and Item 232-1 together during the open hearings. The Committee heard support for the suggestion that the density factor should change from 0.92 g/cm³ to 0.95 g/cm³. A California official stated that the information provided by the WWMA was data extracted from Internet searches. Manufacturers are complaining that under current practice, they cannot compete fairly.

Mr. Jackelen, Berry Plastics, urged the Committee to reject this proposal. Mr. Jackelen stated that 0.92 g/cm³ currently works for manufacturers and that changing it to 0.95 g/cm³ will cause undue cost and waste. Most manufacturers do not make high density (HD) bags, but are producing blends. Mr. Jackelen also stated an additional reason to reject the proposal is 0.95 g/cm³ bags, if punctured will continue to tear.

An official stated that if you use the term HD, then you are bound by the 0.95 g/cm³ density. If you use the length × width × thickness × density to determine the net weight, then the density needs to be added to the package labeling. Another official stated that manufacturers should consider disclosing the density factor on every product as part of the labeling. If there are questions about an absolute 0.95 g/cm³ density, then there should be an alternate suggestion. Another official stated that 0.95 g/cm³ will be factored in when the density is not known. The Committee received reviewed letters that were reviewed on this item (refer to Appendix I, *Report of the 95th NCWM* [SP 1115, 2010]). The 2010 L&R Committee designated this item as a Voting Item.

At the 2010 NEWMA Annual Meeting, there was concern about what appears to be a lack of data on this item. It was not reviewed by all regions and not presented to industry to seek comments. The Committee did not perceive this item as an emergency. NEWMA recommended that the item be an Informational Item to allow time for all the regions and industry to review and comment.

At the 2010 CWMA Annual Meeting there were no comments on this item. The CWMA recommended that this item remain as a Voting Item.

At the 2010 NCWM Annual Meeting, an official stated that his comments were the same as he expressed in Item 232-4 Method of Sale (refer to the *Report of the 95th NCWM* [SP 1115, 2010]). The official stated that with the amendments recommended by another official expressed in Item 232-4, Method of Sale, they would support this proposal. There is agreement that the role of the Conference is not to determine quality issues, but rather to set testing standards for inspectors. Moving this item to Informational status will allow time to receive additional information and data from manufacturers of polyethylene.

The Committee believed that additional work was needed on this item including reviewing the labeling requirement of polyethylene. This may include requiring a mandatory statement and review of ASTM standards. Following Open Hearings, the 2010 L&R Committee changed the status of this item from a Voting Item to an Informational Item to allow more time for development.

At the 2010 CWMA Interim Meeting, there were no comments on this item. The CWMA recommended that the item remain an Informational Item.

At the 2010 WWMA Annual Meeting, an official commented that he is in support of this item with the proposed amended changes to replace the existing language with:

***Determined by ASTM Standard D 1505-98 (or latest issue) "Standard Method of Test for Density of Plastics by the Density Gradient Technique." For the purpose of this handbook regulation, when the actual density is not known (D) is not labeled on the package, the minimum density (D) used to calculate the target net weight for linear low density polyethylene products (LLDP) and products other than high density (HDPE) shall be 0.92 g/cm³ when the actual density is not known. For products labeled High Density, HDPE, or similar wording, that does not specify the minimum density (D) on the package label, the minimum density (D) used to calculate the target net weight shall be 0.95 g/cm³.**

The WWMA L&R Committee recommends that the item be a Voting Item as amended above.

At the 2010 SWMA Annual Meeting there were no comments heard on this item. The Committee recommended more time to seek additional information and comments from industry other than the material safety data sheets that were submitted. The SWMA recommended that the item remain as an Informational Item.

At the 2010 NEWMA Interim Meeting, there were no comments heard on this item. NEWMA would like this item to remain as an Informational Item.

At the 2011 NCWM Interim Meeting, a state official remarked that within their state there are extensive labeling problems with poly labeling. She recommends that the Committee consider the revised WWMA language as it will provide guidance and language for when the density is not known. The 2011 Committee recommends the revised language from the WWMA for adoption by the NCWM.

At the 2011 NEWMA and CWMA Annual Meetings, there were no comments heard on this item and both regions recommended this move forward as a Voting Item.

At the 2011 NCWM Annual Meeting, it was noted there is also a corresponding proposal for the method of sale under Item 232-1. A state official expressed concern with the term "when D is not known." Currently, 0.92 g/cm³ is the lower density rating when "D" is not known. The proposed language will allow industry to use products with densities lower than the 0.92 g/cm³. Several states spoke in support of this item since it does provide clarity for the test procedure. This testing can be destructive unless the density is known. A letter from industry was received stating that 0.95 g/cm³ density may not represent the density of HDPW currently in the marketplace. They indicated that 0.948 g/cm³ is a more accurate factor. The Committee believes that additional data from industry needs to be received on the density factors before proceeding with this item. The Committee removed this item from the voting calendar and designated this item as an Informational Item.

At the 2011 CWMA Interim Meeting, the CWMA requested more information from the regions and industry. The CWMA, therefore, recommends that the item remains as an Informational Item.

At the 2011 WWMA Annual Meeting, a county official recommended that density be required on the label. The WWMA L&R Committee reviewed the ASTM definitions for HD, Low Density, and Medium Density. It was agreed that the use of the ASTM defined density would clarify the proposal. WWMA recommended that this item be a Voting Item as revised below. Final updated or revised proposal recommended by the WWMA (taken from NIST Handbook 130 (2011 edition):

***Determined Defined by ASTM Standard D1505-03, “Standard Method of Test for Density of Plastics by the Density Gradient Technique.” D1505 68, Standard Method of Test for Density of Plastics by the Density Gradient Technique D883 (2011), Standard Terminology Relating to Plastics (or latest issue.)**

For the purpose of this regulation, the minimum density for **linear low density polyethylene plastics (LLDPE)** shall be 0.92 g/cm³ (when D is not known).

For the purpose of this regulation, the minimum density for linear medium density polyethylene plastics (LMDPE) shall be 0.93 g/cm³ (when D is not known).

For the purpose of this regulation, the minimum density for linear high density polyethylene plastics (HDPE) shall be 0.94 g/cm³ (when D is not known).

At the 2011 NEWMA Interim Meeting, the Committee heard no comments or made no recommendations.

At the 2011 SWMA Annual Meeting, the Committee heard no comments on this item. The SWMA recommended that the item be a Voting Item pending agreement on the high density.

At the 2012 NCWM Interim Meeting, the Committee reviewed language from the 2011 WWMA. The Committee designated this as a Voting Item using the language received from the 2011 WWMA along with editorial changes to add reference to ASTM D1505 and ASTM D883.

At the 2012 NEWMA Annual Meeting, NEWMA received a comment on whether 0.093 g/cm³ resolves the issue. It was discussed that this allows the density to meet an ASTM standard. NEWMA agreed that this item should be designated as a Voting Item.

During their spring 2012 Annual Meetings both the NEWMA and CWMA supported this item and recommended it for adoption by the NCWM.

At the 2012 NCWM Annual Meeting no comments were heard on this item. The Committee made two editorial changes to the item under consideration. The first change is to replace the term “products” with “plastics” and to remove the word “linear” from the definition of high density polyethylene. The Committee decided to change the language to align with the ASTM standard and maintain the status of the item as a Voting Item. After discussing the comments from the 2012 NCWM Annual Meeting Open Hearings and the proposed changes, the Committee agreed to modify the language in its Interim Report to that shown in this Final Report in the Item Under Consideration.

Additional letters, presentations and data may have been part of the Committee’s consideration. Please refer to Items 232-4 and 260-3 and Appendix I in the *Report of the 95th NCWM* (SP 1115, 2010) and Item 260-2 and Appendix C in the *Report of the 96th NCWM* (SP1125, 2011), and Appendix C within this document for additional content.

260-5 D Printer Ink and Toner Gravimetric Package Testing Work Group

Source:

Printer Ink and Toner Gravimetric Package Testing Work Group (2012)

Purpose:

Provide notice of the formation of a new Subcommittee reporting to the L&R Committee. This Subcommittee will provide additional guidance for developing test procedures for printer ink and toner cartridges.

Item Under Consideration:

None

Background/Discussion:

At the 2012 NCWM Annual Meeting, it was announced there is a new Printer Ink and Toner Gravimetric Package Testing Work Group that met to discuss a test method that would require industry to label cartridges with a tare (packaged materials) weight. Weights and measures inspectors would weigh the packaged product, and subtract this tare weight from the gross weight of the product to obtain the net weight. The tare weight provided on the package would be a cartridge tare weight, or a total tare weight, that would include the weight of the empty cartridge and all other package materials, that could appear on the outer box.

During open hearings, Mr. Matthew Barkley, Hewlett Packard, commented that the agenda for the work group was received prior to coming to the Conference, but he did not have a proper amount of time to conduct a review. Hewlett Packard products are manufactured on three continents and packaged within the United States. Some labeling could be difficult and costly, and the additional cost of doing this would be passed on to the consumer. Mr. Barkley did submit a letter into the Committee with his comments and concerns. Mr. Barkley also requested that his documentation be submitted at the 2011 NCWM Annual remain with the Committee as this item continues to develop (refer to Appendix C in the *Report of the 96th NCWM* [SP 1125, 2011]).

Anyone interested in participating in the Printer Ink and Toner Gravimetric Testing WG should contact Judy Cardin, Wisconsin Weights and Measures, at judy.cardin@wi.gov or Lisa Warfield, NIST, OWM Technical Advisor at lisa.warfield@nist.gov.

Additional letters, presentations and data may have been part of the Committee's consideration. To review the supporting documentation for this item, please refer to Appendix C, *Report of the 95th NCWM* (SP 1115, 2010), Appendix C, *Report of the 96th NCWM* (SP 1125, 2011), and Appendix C within this document for additional content.

270 OTHER ITEMS – DEVELOPING ITEMS**INTRODUCTION**

The NCWM established a mechanism to disseminate information about emerging issues which have merit and are of national interest. Developing items are those items that have not received sufficient review by all parties affected by the proposals or may be insufficiently developed to warrant review by the NCWM L&R Committee. The Developing items listed are currently under review by at least one regional association, Subcommittee, or work group.

The Developing Items are marked according to the specific NIST handbook into which they fall – NIST Handbook 130 or NIST Handbook 133. The Committee encourages interested parties to examine the proposals included in the appendices and to send their comments to the contact listed in each part.

The Committee asks that the regional weights and measures associations, Subcommittees, and work groups continue their work to fully develop each proposal. Should an association, Subcommittee, or work group decide to discontinue work on a Developing Item, the Committee asks that it be notified. When the status of an item changes because the submitter withdraws the item, the item will be listed in a table below. For more details on items moved from the Developing Items list to the Committee's main agenda, refer to the new reference number in the main agenda.

270-1 D Fuels and Lubricants Subcommittee (FALS)

Source:

The Fuels and Lubricants Subcommittee (FALS) (2007)

Purpose:

Update the Uniform Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation in NIST Handbook 130. Another task will be to update the Basic Engine and Fuels, Petroleum Products, and Lubricants Laboratory Publication.

Item Under Consideration:

This item is under development. FALS has met since the 2007 NCWM Annual Meeting and continues its work on a number of items in addition to preparing a major revision of the Fuel Ethanol Specifications.

Background/Discussion:

The Subcommittee met on January 24, 2007, at the NCWM Interim Meeting to undertake a review of a number of significant issues related to fuel standards. Their first project was to undertake a major review and update of the Uniform Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation in NIST Handbook 130. The Subcommittee also met at the 2007 NCWM Annual Meeting and continued its work on a number of items in addition to preparing a major revision of the Fuel Ethanol Specifications.

An additional project will be to update and possibly expand the Basic Engine Fuels, Petroleum Products, and Lubricants Laboratory Publication. The Subcommittee will undertake other projects as time and resources permit.

At the 2009 NCWM Interim Meeting and Annual Meeting, the FALS Chair informed the L&R Committee that FALS is working toward getting changes made to the language within the document.

At the CWMA 2009 Interim, the WWMA 2009 Annual, the SWMA 2009 Annual, and NEWMA 2009 Interim Meetings, there were no comments heard. The associations recommend that this proposal remain a Developing Item.

At the 2010 NCWM Interim Meeting, the FALS Chair, Mr. Ron Hayes, informed the L&R Committee that FALS is still working on this project. No comments were heard during the open hearings, and the L&R Committee agrees that this item should remain a Developing Item.

At the 2010 NEWMA Annual Meeting no comments were heard on this item. NEWMA recommends that this item remain as a Developing Item.

At the 2010 CWMA Annual Meeting, the NIST Technical Advisor provided information that NIST had begun work on the development of a handbook for state fuel laboratories.

At the 2010 NCWM Annual Meeting, a comment from a petroleum representative stated that this item is premature and that action needs to be taken by the EPA. Mr. Hayes clarified that this item is for a laboratory guide and that FALS supports NIST, OWM's efforts to develop a handbook for state fuel laboratories. The item mentioned by the petroleum representative is for a new proposal that is being submitted through the regions modifying NIST Handbook 130, as a result of a potential EPA waiver for gasoline containing more than 10 volume percent ethanol.

During the 2010 SWMA Annual Meeting, the CWMA and NEWMA Interim Meetings, all of the associations supported the recommendation that this item be considered as a Developing Item.

At the 2011 NCWM Interim Meeting, the NIST Technical Advisor reported that a draft laboratory guide for state laboratories will be available for distribution and comment by March 2011. The NCWM L&R Committee recommended this item move forward as an Informational Item. Mr. Hayes added that FALS is considering a number of new items including:

- Section 3.2.5. – Prohibition of Terms. – possible deletion of altitude adjustment for octane and economy grades;
- Reference ASTM microbial contamination standards;
- Reference ISO 22241.1 NOx Reduction Agent Part 1 – Quality Requirements (quality standard for Diesel Exhaust Fluid);
- Section 3.1.2. – Retail Dispenser Labeling. – Review for potential clarification of “gasoline” identity on retail motor fuel dispensers; and
- Establish regulations to determine if OEM labelled claims for Automatic Transmission and Tractor Fluids are met.

At the NEWMA 2011 Annual Meeting, NEWMA agreed that additional work is needed to establishing a requirement for mis-fueling.

At the CWMA 2011 Annual Meeting, the FALS Chair noted the first draft related to mis-fueling was released for comment on June 6, 2011.

At the 2011 NCWM Annual Meeting, the FALS Chair gave an update. FALS is working on the altitude adjustment table. Today’s vehicle population requires fuel with the same octane requirements regardless of altitude. A state official expressed concern that unleaded fuel is currently marketed as regular and unleaded 85 octane. FALS is in agreement that ASTM needs to address this issue as it involves pre-1971 vehicles. Currently, all engine manufacturers require no less than 87 octane. The NIST Technical Advisor remarked that a second draft laboratory guide will be made available prior to October 2011 for distribution and review.

At the 2011 CWMA and NEWMA Interim Meetings there were no comments. The CWMA and NEWMA recommended that the item be a Developing Item.

At the 2011 WWMA Annual Meeting, the WWMA continues to support the work of the FALS and recommends the item be an Information Item.

At the 2012 Interim Meeting, the NIST Technical Advisor remarked that comments on the draft laboratory guide for state laboratories are due into NIST by February 1, 2012. The 2012 L&R Committee designated this item as a Developing Item and assigned its development to FALS.

At the 2012 NEWMA and CWMA Annual Meetings, there were no comments received, and it was recommended that the item be a Developing Item. At the CWMA meeting, the NIST Technical advisor remarked that there were extensive changes received on the laboratory guide for state laboratories. NIST is currently compiling another draft for release.

At the 2012 NCWM Annual Meeting, the NIST Technical Advisor remarked the laboratory guide for state laboratories (NIST, Handbook 156, *Program Handbook for Engine Fuels, Petroleum and Lubricant Laboratories*) will be published by October 1, 2012. Mr. Hayes provided an update on items that FALS items and will provide an additional update at the 2013 NCWM Interim Meeting.

If you would like to participate in this Subcommittee, contact Mr. Ron Hayes, Chairperson Fuels and Lubricants Subcommittee, at (573) 751-2922, e-mail: ron.hayes@mda.mo.gov or Mr. David Sefcik, NIST at (301) 975-4868, e-mail: david.sefcik@nist.gov.

270-2 D Packaging and Labeling Subcommittee (PALS)

At the 2011 NCWM Interim Meeting, the Packaging and Labeling Subcommittee (PALS) met for the first time to discuss ongoing issues and agenda items in regards to packaging and labeling regulations. There were 11 attendees that represented industry, state and county regulatory officials, and a NIST Technical Advisor.

The mission of PALS is to assist the NCWM L&R Committee in the development of agenda items related to packaging and labeling. The Subcommittee will also be called upon to provide important and much needed guidance to the regulatory and consumer packaging communities on difficult questions. The PALS will report to the NCWM L&R Committee.

The NIST, OWM Technical Advisor reported that Federal Trade Commission (FTC) will do a review of Fair Packaging and Labeling Act (FPLA) in 2013.

It was announced at the 2011 NEWMA and CWMA Annual meetings that Mr. Chris Guay, PALS Chair, is actively seeking volunteers. Mr. Guay has requested at least one representative from each regional association.

At the 2011 NCWM Annual Meeting, the PALS were unable to meet since the Chair, Mr. Guay, was not in attendance. Volunteers were solicited for this Committee.

At the 2011 CWMA Interim Meeting, the PALS Chair stated the goal is to be active before the 2012 NCWM Interim Meeting and stated there is a need to prioritize labeling issues. No action was needed, and the CWMA recommended that the item remain as a Developing Item.

At the 2011 WWMA and NEWMA Interim Meetings, both associations recognized that this would be an ongoing item, and recommended that remain as a Developing Item.

At the 2012 NCWM Interim Meeting, PALS met to discuss its formation and strategy for moving forward. The NCWM Chair will appoint eight voting members on the Committee to consist of four regulatory officials (one from each region), and four from industry (two retailers and two manufacturers). Mr. Guay remarked that the work of the Subcommittee will be done through webinar meetings and will be held approximately four times a year. PALS members will be responsible for providing updates at their regional meetings and to seek input into issues. Mr. Guay added that PALS will be developing proposals and providing guidance and recommendations on existing proposals as assigned by the NCWM L&R Committee. Mr. Guay also stressed the need and importance of having key federal agencies (FDA, FTC, and USDA) participating. Mr. Guay gave a presentation on a number of packaging issues he has encountered over the last several years. The NIST Technical Advisor commented that the FTC announced that they will be doing a review on the FPLA in 2013. Mr. Kurt Floren, NCWM Chair stated he is committed to making the final Committee appointments, and understands the urgency and necessity for the work of this Subcommittee. The 2012 L&R Committee designated this item as a Developing Item and assigned its development to PALS.

At the 2012 NCWM Annual Meeting, the PALS met and is currently considering the following for further development:

- **Additional Net Content Declarations on the PDP** – Package net contents are most commonly determined by the product form, for example, solid products are labeled by weight and liquid products are labeled by volume. Semi-solid products such as pastes, creams, and viscous liquids are required to be labeled by weight in the United States and by volume in Canada.
- **Icons in Lieu of Words in Packages Labeled by Count** – Clear and non-misleading icons take the place of the word “count” or “item name” in a net content statement. While existing Federal regulation requires regulatory label information to be in “English,” the increasing presence of multilingual labels and the growing diversity of the U.S. population suggest more consumers are served with a clear and non-misleading icon.

- **Multilingual Labels**
- **Multipacks and Bundle Packages** – The net content statements for multipacks and bundled packages of individually labeled products can be different based on the approach used to calculate them. The difference is the result of the degree of rounding for dual inch-pound and metric declarations. Using two apparently valid but different methods can yield one net content statement result, which provides more accuracy between the metric and inch-pound declarations and a different net content result, which is consumer friendly.

Anyone interested in assisting the Packaging and Labeling Subcommittee, please contact Mr. Chris Guay, PALS Chair at (513) 983-0530, e-mail: guay.cb@pg.com or Mr. David Sefcik, NIST, OWM at (301) 975-4868, e-mail: david.sefcik@nist.gov.

270-3 D Moisture Allowance

Source:

Moisture Allowance Subcommittee (2012)

Purpose:

Provide notice of formation of a new Subcommittee reporting to the L&R Committee. This Subcommittee will provide additional guidance for making moisture allowances for products not listed in NIST Handbook 133.

Item Under Consideration:

None

Background/Discussion:

At the 2012 NCWM Interim Meeting, the L&R Committee Chair will be requesting that the NCWM Board of Directors to form a new Subcommittee to review moisture allowance.

At the 2012 NCWM Annual Meeting, it was announced that Mr. Kurt Floren will be the Chair for the Moisture Allowance Subcommittee.

Anyone interested in assisting with the work should contact Mr. Kurt Floren, Chair at (626) 575-5451 or e-mail kflore@acwm.lacounty.gov or Ms. Lisa Warfield, NIST Technical Advisor at (301) 975-3308 or lisa.warfield@nist.gov.

Ms. Judy Cardin, Wisconsin, Chair
Mr. Richard Lewis, Georgia
Mr. Tim Lloyd, Montana
Mr. Raymond Johnson, New Mexico
Mr. Louis Sakin, Towns of Hopkinton/Northbridge, Massachusetts
Ms. Judy Cardin, Wisconsin, Chair, Printer Ink and Toner Gravimetric Package Testing
Mr. Kurt Floren, Los Angeles County, CA, Chair, Moisture Loss Work Group
Mr. Christopher Guay, Chair, PALS
Mr. Ron Hayes, Missouri, Chair, FALS

Mr. Rob Underwood, Associate Membership Representative
Mr. Lance Robertson, Canadian Technical Advisor
Mr. David Sefcik, NIST Technical Advisor
Ms. Lisa Warfield, NIST Technical Advisor

Laws and Regulations Committee

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