Laws and Regulations (L&R) Committee Interim Agenda

Ms. Judy Cardin, Committee Chair
Wisconsin

200 INTRODUCTION

The L&R Committee will address the items in Table A during the Interim Meeting. Table A identifies the agenda items by reference key, title of item, page number and the appendices by appendix designations. The headings and subjects apply to *NIST Handbook 130 Uniform Laws and Regulations In the Areas of Legal Metrology an Engine Fuel Quality, 2011 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 acronyms for organizations and technical terms used throughout the agenda are identified in Table B. In some cases, background information will be provided for an item. The fact that an item appears on the agenda does not mean it will be presented to National Conference on Weights and Measures (NCWM) for a vote. The committee will review its agenda and may withdraw some items, present some items for information meant for additional study, issue interpretations, or make specific recommendations for change to the publications identified which will be presented for a vote at the Annual Meeting. The committee may also take up routine or miscellaneous items brought to its attention after the preparation of this document. The committee may decide to accept items for discussion that are not listed in this document, providing they meet the criteria for exceptions as presented in Section H of the introductions to *NIST Handbook 44* and *NIST Handbook 130*. The committee has not determined whether the items presented will be Voting or Informational in nature; these determinations will result from their deliberations at the Interim Meeting.

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***.

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.

Subject Series List

Table A
Table of Contents

APPENDICES

Table B
Glossary of Acronyms and Terms

Acronym	Term	Acronym	Term
API	American Petroleum Institute	NARUC	National Association of Regulatory Utility Commissioners
BOV	Bag of Valve	NAA	National Aerosol Association
CFR	Code of Federal Regulations	NBB	National Biodiesel Board
CNG	Compressed Natural Gas	NCWM	National Conference on Weights and Measures
CRC	Coordinating Research Council	NEWMA	Northeastern Weights and Measures Association
CWMA	Central Weights and Measures Association	NIST	National Institute of Standards and Technology
EPA	Environmental Protection Agency	OEM	Original Equipment Manufacturer
EVSE	Electric Vehicle Supply Equipment	ORVR	On-board Refueling Vapor System
FALS	Fuels and Lubricants Subcommittee	OWM	Office of Weights and Measures
FPLA	Fair Packaging and Labeling Act	PALS	Packaging and Labeling Subcommittee
FSS	Fuel Specifications Subcommittee	PEV	Plug-in Electric Vehicle
FTC	Federal Trade Commission	PUC	Public Utility Commissions'
HD	High Density	RFA	Renewable Fuels Association
HDPE	High Density Polyethylene	RMFD	Retail Motor Fuel Dispenser
ISO	International Organization for Standardization	SAE	Society of Automotive Engineers
L&R	Laws and Regulations	SWMA	Southern Weights and Measures
LLDP	Linear Low Density Polyethylene	UPLR	Uniform Packaging and Labeling Regulation
LLDPE	Low Density Polyethylene Plastics	USNWG	U.S. National Work Group
LMDPE	Linear Medium Density Polyethylene Plastics	USNHWG	U.S. National Hydrogen Work Group
MLWG	Moisture Loss Work Group	WWMA	Western Weights and Measures Association

Details of All Items
(In order by Reference Key)

210 NIST HANDBOOK 130 - GENERAL

210-1 Clarification of Terminology

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:

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 10cents to 50cents. 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 (USMA). Most of these comments suggested that the 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 liters; 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 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 ½ 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 (CWMA) 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 recommended 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 committee therefore recommends to Withdraw the Item.

Fair Packaging and Labeling
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**. 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 Northeastern Weights and Measures Association (NEWMA) 2011 Interim Meeting there were no comments. The committee recommended placing the item as a Developing Item.

At the 2011 Southern Weights and Measures Association (SWMA) Annual Meeting a National Institute of Standards and Technology (NIST) Technical Advisor noted that a change in the language could cause a conflict with some state statutes who 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. They recommend the item move forward as an Information Item.

221 NIST HANDBOOK 130 – UNIFORM WEIGHTS AND MEASURES LAW

221-1 Section 1. Definitions

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

Purpose:
Update and promote international harmonization of metrology-related definitions.

Item Under Consideration:
Amend *NIST Handbook 130:* Uniform Weights and Measures Law as follows:

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 measurance.**~~ **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 2012)

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)

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.

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 committee recommendation was to Withdraw the Item.

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 committee supports the idea of the proposal but would like to have staff review this item before proceeding. The recommendation is to make this an Information Item.

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

At the 2011 SWMA Annual Meeting no comments were heard. The committee would like to provide members more time for internal review and placed the item as an Information Item.

231 NIST HANDBOOK 130 – UNIFORM PACKAGING AND LABELING REGULATION

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

Source:
Central Weights and Measures Association (2011)

Purpose:
Provide clearer language to help guide industry and state officials when federal agencies are inconsistent in their interpretations.

Item Under Consideration:
Amend *NIST Handbook 130:* Uniform Packaging and Labeling Regulation as follows:

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 (such as "jumbo "giant," "full," or the like) that tends to exaggerate the amount of commodity.

(~~**Amended 1998**~~, **Amended 20XX**)

Background / Discussion:
Manufacturers are using the terms such as "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. The Federal Trade Commission (FTC) does not consider the terms "equivalent," or "lasts the same as" to be exaggerated or misleading.

At the 2010 CWMA Interim Meeting a state regulator presented an example of a label (refer to Appendix A) 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. The CWMA L&R Committee recommended that this move forward as a Voting Item.

At the 2011 NCWM Interim Meeting, it was reported that this language was lifted straight out of the FPLA and regulators might encounter problems with their investigations if the language is modified. A NIST Technical Advisor commented that the 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 Section 6.12 in the Uniform Packaging and Labeling Regulation (UPLR).

The NIST Technical Advisor remarked that the section was amended in 1998 to include the term "approximately" (which is not included in the FPLA) as a prohibited term. There has been no indication that the differences between the UPLR and FPLA are being challenged. It was also recommended that FTC be notified that this is an issue before the conference. The committee received a letter from a manufacturer stating that the company will voluntarily remove "lasts the same as" from their package label. The committee recommended that the item under consideration be Informational to allow for review and comment by all regions.

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 newly formed Package and Labeling Subcommittee. The committee 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 made. The committee concurs with the FTC findings that the terms are not misleading. The added terms are deemed a quality statement rather than a quantity statement. The recommendation was to Withdraw the Item in its entirety.

At the 2011 NEWMA Interim Meeting no comments were made and the committee maintained a neutral position recommending that the item be considered Informational.

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

231-2 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. Section 10.3 now requires 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:
Develop a method of sale that allows the quantity statement in terms of mass for products that utilize BOV that do not expel the propellant with the product when the valve is activated. Whereas the BOV technology more accurately simulates other dispensing products now labeled in terms of fluid measure that utilize a hand pump, the presenter of this item recommends amending section 10.3 by inserting a statement that aerosol and similar pressurized containers do not include containers utilizing BOV technology that do not expel the propellant with the product or other similar language.

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 (refer to Appendix B) supporting labeling of certain products such as the "Pure Citrus" product pictured above by liquid measure.

At the 2011 CWMA Interim Meeting the committee agreed that the proposal did not include a specific recommendation for the language for the amendment to section 10.3., 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. The NIST Technical Advisor read from the *NEWMA 2011 Annual Meeting Report* that NEWMA 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. The committee believes that

this technology currently exists in the marketplace and that a proper method of sale is needed. It was recommended to move this item as a Voting Item with language 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 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: ADD TO CONTAINER WORDING THAT IT IS "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. A NIST Technical Advisor noted that no specific language has been proposed. Another NIST Technical Advisor noted that section 6.4 of the UPLR says "any net content statement that does not permit price and quantity comparison is forbidden". It was further noted that section 10.3 applies to aerosols and similar pressurized containers. Only 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 1990's. The board member of the NAA believes BOV technology is considered an aerosol, basing his opinion on a California Air Resources Board Regulation.

The committee needs proposed language and is awaiting 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. The committee recommends this item be placed as a Developing Item.

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

232-1 Section 2.13.4. Declaration of Weight (Polyethylene)

Source:
Western Weights and Measures Association (2010)

Purpose:
Provide new density values for heavier density plastics that are now in the marketplace.

Item Under Consideration:
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 x A x 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 (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/cm^3 ~~**(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/cm^3.

For inch-pound dimensions:

W = T x A x 0.03613 x 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 (or latest issue); and 0.03613 is a factor for converting g/cm^3 to lb/in^3.

~~**For the purpose of this regulation, the minimum density shall be 0.92 g/cm^3.**~~

(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* Section 2.13.4. to understate the net quantity of their labels. The polyethylene industry recognizes a density value of 0.92 g/cm³ for Linear Low Density Polyethylene (LLDP) products. When 0.92 g/cm³ 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/cm³ 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/cm³ 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 Handbook 130* and *NIST Handbook 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 as 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 x A x 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 (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/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.**

For inch-pound dimensions:

W = T x A x 0.03613 x D, 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/cm^3 to lb/in^3.

~~**For the purpose of this regulation, the minimum density shall be 0.92 g/cm^3.**~~

(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.*

The 2009 WWMA Association supports the following item and recommends that 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/cm^3 (when D is not known). For the purpose of this regulation, the minimum density shall be 0.92 g/cm^3.**~~

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 weigh for linear low polyethylene products (LLDP) 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, the minimum density (D) used to calculate the target net weight shall be 0.95 g/cm^3.**

At the 2009 NEWMA Interim Meeting the committee reviewed this item and recommends that this proposal be a Developing Item.

At the 2010 NCWM Interim Meeting the committee heard support for the density factor changing from 0.92 g/cm³ to 0.95 g/cm³ on this item. A county official 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, Berry Plastics, urged the committee to reject this proposal. Mr. Jackelen stated that 0.92g/cm³ density 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. 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 x width x thickness x 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 never reviewed by all regions and also not presented to industry to seek comments. The committee felt that this item was not an emergency and would like to review comments received from all regions and industry.

At the 2010 CWMA Annual Meeting, the committee 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, Berry Plastics, (refer to Appendix C) 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 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 proposal and California submitted material safety data sheets from several companies (refer to Appendix C). The committee considered comments received and agreed that more work was needed so the item was changed to Informational.

At the 2010 CWMA Interim Meeting, there were no comments heard on this item. The committee recommends that this item remain an Information 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 committee recommends that the amended language move forward as a Voting Item. The committee also recommends that additional language be inserted for SI dimensions.

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 committee would like to seek additional comments from industry, other than material safety data sheets (refer to Appendix C). The committee recommends that this item move forward as an Information Item.

At the 2010 NEWMA Interim Meeting 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 committee recommends this move forward as a Developing Item.

At the 2011 NCWM Interim Meeting Mr. Jackelen, Berry Plastics, stated this item as written will have a detrimental effect on the industry due to the high cost of plastics. Mr. Jackelen further explained that HD plastics are of higher quality but are of a thinner gauge which subjects it to tearing. A state regulator stated 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 NCWM Annual Meeting, the committee further reviewed this item in the work session. After seeking clarification from industry and states and after reviewing letters that were submitted to the conference, (refer to Appendix C) the committee decided this proposal was not ready for vote. The committee would like additional information from the regions and industry for clarification on the language. It is unclear and unknown what the proper density factor is for HDPE or similar worded products. The committee changed the status of the item from a Voting Item to an Information Item.

At the 2011 CWMA and NEWMA Interim Meetings the committees recommended to keep the Information status based on testimony at the 2011 NCWM Annual Meeting.

At the 2011 WWMA Annual Meeting, Mike Jackelen of Berry Plastics 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, and 2.13.1.1. – Sheeting and Film and under Section 2.13.3.1. Bags add a subsection (f) "Density." This will require the manufacturers to place the density on the labeling.

The 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 committee took the existing language out of *NIST Handbook 130*, 2011 edition and edited as shown below. The committee recommends moving the item to a Voting Item 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 x A x 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/cm^3 (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/cm^3 (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/cm^3 (when D is not known).

For inch-pound dimensions:

W = T x A x 0.03613 x 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/cm^3 to lb/in^3

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

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

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

(Added 1977) (Amended 1980, 1982, 1987, 1989, 1990, ~~**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 committee supports the item as written pending clarification of high density, they recommend moving the item forward as a Voting Item.

232-2 Section 2.19. Kerosene

Source:
Kansas Department of Agriculture (2012)

Purpose:
Establish a method of sale for Kerosene.

Item Under Consideration:
Amend *NIST Handbook 130*: Method of Sale Regulation as follows:

> **2.19.1. Method of 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, 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 and recommends 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 committee would like to see this item move forward 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 in^3 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 bio fuel) products. The committee recommends making this a Developing Item.

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

232-3 Section 2.23. Animal Bedding

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 as follows:

~~**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)**~~

Amend *NIST Handbook 130:* Method of Sale Regulation 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. **No quantity declarations for compressed animal bedding packages shall include pre-compression volume statements.**

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 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. The committee believes if pre-compressed volume cannot be verified it should not be stated on packages. The committee recommends the item move to a Voting Item.

232-4 Section 2.33. Vehicle Motor Oil

Source:
Central Weights and Measures Association (2011)

Purpose:
Provide a method of sale for vehicle motor oil that would correspond with the *NSIT Handbook 130*: Engine Fuels and Automotive Lubricants Regulation and require detailed invoicing requirements.

Item Under Consideration:
Amend *NIST Handbook 130*: Method of Sale Regulation as follows:

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 or receipt 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, Engine Oil Viscosity Classification.

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, Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving").

2.33.1.3. Brand. – The label on a vehicle motor oil container and the invoice or receipt 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 or receipt 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 (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 a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice or receipt 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, Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving").

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

All references to invoice or receipt will be enforceable effective on July 1, 2012.

(Added 20XX)

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 committee 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.

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 committee added the words "or receipt" after the word "invoice" throughout this proposal. The committee was also asked to consider changing the term "motor" to "engine". After discussion with the Fuels and Lubricants Subcommittee Chair it was recommended to keep the term "motor". 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. On a split vote, the item was returned to committee.

At the 2011 CWMA Interim Meeting Mr. Ferrick, API, 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 it is unlawful to misrepresent brand in addition to other items. Further, in the Engine Fuels and Automotive Lubricants Regulation section 3.14.1 related to automatic transmission fluid requires "the brand name" on each container. The committee 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, API, 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 committee 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 arose regarding "off brand" selling where branded is thought to be present. An API representative commented that API can test when a particular facility is API licensed. The committee recommends moving this to a Voting Item.

At the 2011 SWMA Annual Meeting Mr. Ferrick, API, gave a presentation in support of this item, along with 237-6. API routinely samples product in the market 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 section 3.14 of the Engine Fuels and Automotive Lubricants Regulation requires brand to be stated on the label, and section 6.1.5 (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 committee recommends placing the item as a Voting Item with a July 2013 implementation date.

232-5 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 there will be 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 www.mychargepoint.net/find-stations.php 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 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, etc.). 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 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. within the document that can be found at the website link in section 20), the question has also been raised as to whether PUC's 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 committee recommends returning the item to the submitter for development and place 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 item was recommended as a Developing Item.

At the 2011 NEWMA Interim Meeting questioned how consumers will be charged, how the effort will be monitored, and whether this would be considered a regulated utility. The committee therefore recommends the proposal 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 Developmental 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 NTEP approved. There was also question to whether a test measure can be traceable and certifiable to a standard. A state regulator expressed support for this item. The SWMA recommends that this item be designated as Developing.

232-6 2.XX. Printer Ink and Toner Cartridges Labeling

Source:
Southern Weights and Measures Association (2010)

Purpose:
Clarify the labeling requirements for industry, consumers and weights and measures officials.

Item Under Consideration:
Amend *NIST Handbook 130*: Method of Sale Regulation as follows:

2.XX. Printer Ink and Toner Cartridges Labeling.

2.XX.1. Definitions.

(a) 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 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.

(b) 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 copying device and designed to be replaced when no longer able to supply its contents in printing and/or copying.

(c) 2.XX.2. Method of Sale and Labeling.

(d) 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.

(e) 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 20XX)

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* from the 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. Gray, Florida Department of Agriculture and Consumer Services, dated March 17, 2009 (refer to Appendix D). 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) 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, Florida Department of Agriculture and Consumer Services, felt that more data is needed from manufacturers on this issue.

The SWMA L&R Committee recommends the item for consideration for Developing by NCWM L&R Committee.

At the 2010 Interim Meeting the committee heard testimony from Mr. Barkley, Hewlett Packard Co., regarding how 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 urges that this issue be withdrawn. If this issue is to proceed, it should be Informational and a review of the FPLA exemption needs to be reviewed. Page yield is widely accepted and has repeatability measures.

Mr. Jeran, Hewlett Packard Co., submitted a white paper (refer to Appendix D) from the Information Technology Industry Council. 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 refillers are doing. The Florida official reviewed the current practice of refillers, 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 Code of Federal Regulations (CFR). NIST, OWM 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 committee recommends that this item be made Informational until they can receive clarification from the FTC, review ISO standards, and determine what refillers' current practices are.

At the 2010 NEWMA and the CWMA Annual Meetings, both associations received a presentation from Mr. 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 are recommending that this be an Informational Item.

At the 2010 Annual Meeting Mr. Pociask, American Consumer Institute, presented a study done by his organization. It was asked who initially requested the study and who funded it. Mr. Pociask stated that the study was done back in 2007, with funding by a telemarketing research company.

A weights and measures official expressed concern that the study presented was not clear; is 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 refillers need to be addressed.

Mr. Rosenberg, Information Technology Industry Council, 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 there is a lot more that needs to be discussed on this issue (refer to Appendix D).

At the 2010 Annual Meeting, the Board of Directors established a Task Group on Printer Ink and Toner Cartridges to review and obtain additional information from all stakeholders. Ms. Dempsey, Montgomery County Weights and Measures, Ohio will chair this group and Ms. Warfield will be the NIST Technical Advisor.

At the 2010 CWMA Interim Meeting, Ms. Dempsey, Task Group on Printer Ink and Toner Cartridges Chair 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 Food and Drug Administration 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 supports the efforts of the Task Group on Printer Ink and Toner Cartridges to gather more information for development of this proposal.

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

At the 2010 SWMA Annual Meeting, it was announced that a chair is needed for the Task Group on Printer Ink and Toner Cartridges. The committee does not endorse the formation of Task Group on Printer Ink and Toner Cartridges 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 committee would like to seek additional information from industry and ink refillers. A recommendation was made for the item under consideration move forward as a Voting Item.

At the 2011 NCWM Interim Meeting the Task Group on Printer Ink and Toner Cartridges held its first work session. 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 feel 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 Task Group on Printer Ink and Toner Cartridges requested additional information from industry in regards to:

1. How the ISO standard works, and how this standard fits into the weights and measures test procedure.
2. How is print darkness measured?
3. An explanation as to why 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?

Concerns were expressed that the ISO/IEC test procedure for yield is not a practical method of testing. The Task Group on Printer Ink and Toner Cartridges met on Sunday, July 17, 2011. A presentation given by industry will be included in the 2011 NCWM Annual Report. Industry expects to attend and brief attendees at the regional meetings. The committee would like to see additional work from the Task Group on Printer Ink and Toner Cartridges.

At the 2011 CWMA Interim meeting a state regulator supported the item and asked the committee to forward it as a Voting Item. Two other state regulators would rather see a weight statement because the amount of ink would be too small to measure the density. A regulator opposing a weight statement and supporting measuring by yield stated that you can't measure when the cartridge retains some portion of ink and measuring by volume does not help inform the consumer. A state regulator questioned how yield could be measured. Several regulators stated that yield could be a supplemental declaration and lawsuits could deal with issues related to yield. The conference may want to consider having the products labeled by weight and not volume. In addition, supplemental information such as yield may be displayed, but not in the net weight area. It was therefore recommended for the item to remain an Information Item.

At the 2011 WWMA Annual Meeting a consumer stated that no comments have been heard and therefore the item is ready to move forward for a vote. A county official did not believe that this item was ready to move forward as a Voting Item because of the lack of testing procedure and a recommendation from the task group. He then made a motion that this item be made Informational; this motion did not receive a second. In a split vote the committee recommends moving the item to a Voting Item.

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 committee supports the item as written and recommends the item be placed as a Voting Item.

Ms. Maureen Henzler, Kansas Department of Agriculture, is the chair for the Task Group on Printer Ink and Toner Cartridges. If you are interested in participating in this task group, e-mail Ms. Henzler at maureen.henzler@kda.ks.gov or Ms. Lisa Warfield, NIST, OWM, at lisa.warfield@nist.gov.

Additional submissions have been part of the L&R Committees consideration. Please refer to Appendix D to review these documents.

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

237-1 Section 2.1.2. Gasoline – Oxygenated Blends

Source:
Central Weights and Measures Association (2011)

Purpose:
Align the regulation for gasoline and gasoline-oxygenate blends 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:

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 Fuel" ~~**except for the permissible offsets for ethanol blends as provided in Section 2.1.3. Gasoline-Ethanol Blends.**~~

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

~~**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)**~~

~~**2.1.3. Gasoline-Ethanol Blends. When gasoline is blended with 1 to 10 volume percent ethanol, the ethanol shall meet the requirements of ASTM D4806 and the blend shall meet 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) Only 9 to 10 volume percent ethanol blends from June 1 through September 15.**~~

~~**(2) All blends of 1 to 10 volume percent ethanol from September 16 through May 31.**~~

~~**(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 1and 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)**~~

Discussion / Background:
The EPA will make a ruling on the March 2009 Growth Energy Waiver (refer to Appendix E). When the ruling is announced, the above regulation will need to be extended to cover E15 gasoline blends. The Renewable Fuels Association (RFA) proposed a broader approach to recognizing the authorized proportion of ethanol as follows:

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.**~~ **the maximum proportion of ethanol authorized by US Environmental Protection Agency (EPA) under Section 211 of the Clean Air Act.**

(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 Fuels and Lubricants Subcommittee (FALS) Chair stated that the FALS may be meeting to discuss this issue at NCWM Interim Meeting in January, 2011. The CWMA committee received two letters on this issue (refer to Appendix E). The committee recommends that this item be forwarded to the FALS for further work.

At the 2010 WWMA Meeting, an industry representative expressed concern about 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 committee 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. Hayes, FALS Chair, reported that FALS held a conference call on January 14, 2011, and also met at NCWM to review the FALS items. Mr. Hayes reported that 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 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 committee agreed to make this item an Information Item to allow FALS to study it further.

At the 2011 NCWM Annual Meeting, the FALS provided a new draft proposal that would simply reference the ASTM standard and delete 2.1.2 and 2.1.3.

At the 2011 CWMA Interim Meeting, Mr. Hayes, FALS Chair, stated they met July 17, 2011, and amended a proposal that blends must meet most recent version of ASTM D4814 standards. He 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. He 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 committee 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 committee 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 and the recommendation was to regard the item as an Information 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.a2 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 % 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 committee supported the following item with the 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.a2 is modified by changing 10% ethanol to 15% ethanol.

Additional submissions have been part of the L&R Committees consideration. Please refer to Appendix E to review these documents.

237-2 Section 2.1.7. Minimum Motor Octane Number

Source:
BP Global Fuels Technology – West Coast (2011)

Purpose:
Remove obsolete language from the regulation.

Item Under Consideration:
Amend the *NIST Handbook 130*: Engine Fuels and Automotive Lubricants Regulation as follows:

~~**2.1.7. 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 90s, the Table titled "Automotive Spark-Ignition Engine Fuel Antiknock Indexes in Current Practice" was removed from the body of D4814 and placed into an Appendix in 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 or Conventional Blendstock for Oxygenate Blending.

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 which is the average of the Motor and Research octane numbers.

At the 2010 WWMA Annual Meeting, the WWMA L&R Committee is recommending that this item be made an Information Item.

At the 2010 SWMA Annual Meeting and the 2010 CWMA and NEWMA Interim Meeting, the associations are recommending that this item be made an Information Item and be forwarded to the FALS.

At the 2011 NCWM Interim Meeting, Mr. Hayes, FALS Chair, reported that the subcommittee recommended this item be Informational to allow more time for data to be reviewed. Historical data exists and also a Coordinating Research Council (CRC) study is 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 an Information Item.

At the 2011 NCWM Annual Meeting it was noted that the FALS is continuing to monitor and develop this item and the CRC is reviewing and analyzing the data from the CRC 660 study and additional industry data.

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

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

237-3 Section 3.1. Standardized Colors for Nozzles

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 misfueling.

Item Under Consideration:
Amend the *NIST Handbook 130*: Engine Fuels and Automotive Lubricants Regulation as follows:

> 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 misfueling. 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.

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).

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.

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.

UR.3.3. Nozzle Color for Retail Motor Fuel Dispensers.

(a) Diesel fuel nozzles shall be green in color and shall be used only for diesel fuel, and

(b) E85 fuel nozzles shall be yellow in color and shall be used only for E85.

Background / Discussion:
Missouri Weights and Measures receive numerous complaints each year related to the accidental misfueling 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 misfueling 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 Chair, stated that larger nozzles have virtually eliminated misfueling of diesel into gasoline tanks in his state. AAA has contacted him and supports this proposal as do several auto manufacturers. The 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 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 committee recommends 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 committee supports this item as a Developing Item.

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

237-4 Section 3.13.1. Labeling of Vehicle Motor Oil

Source:
Central Weights and Measures Association (2011)

Purpose:
Require detailed information on customer invoices or receipts regarding oil change services.

Item Under Consideration:
Amend the *NIST Handbook 130*: Engine Fuels and Automotive Lubricants Regulation as follows:

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 or receipt 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 **Engine Oil Viscosity Classification**.

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 Engine Oil Performance and Engine Service Classification (Other than "Energy Conserving")**.

3.13.1.3. Brand – The label on a vehicle motor oil container and the invoice or receipt 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 or receipt 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 (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."

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 or receipt from service on an engine that includes the installation of vehicle 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 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".

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 other documentation provides that information.

All references to invoice or receipt will be enforceable effective on July 1, 2012.

(Amended 20XX)

Background / Discussion:
This item was originally proposed as follows:

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 J~~300~~**183**.

3.13.1.3. Engine Service Category. – The label on ~~**each container of**~~ **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 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 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 committee recognizes that statement of brand is required on liquid measuring devices in *NIST Handbook 44*. The committee recommends this item be moved forward as an Information 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 (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 Society of Automotive Engineers (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 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 committee would like to move this item forward as an Information 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 committee 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, FALS Chair reported that FALS recommends moving the WWMA language forward. An API representative and submitter of the item also recommend that this revised version presented at the WWMA move forward. The committee is recommending NCWM adoption of this item.

At the 2011 NCWM Annual Meeting, the committee added the words "or receipt" after the word "invoice" throughout this proposal. A comment was heard to change the term "motor" to "engine". After discussion with the chair of FALS it was recommended to keep the term "motor". 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. 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, FALS Chair, commented that brand is an important issue and by removing this section you will continue to facilitate fraud in the marketplace. Also, consumers would not have the required information to verify warranty work if you eliminate the product identity. Engine oils are different blends and stocks. Several states support the inclusion of brand.

At the 2011 CWMA Interim Meeting Mr. Ferrick, API gave a presentation outlining why brands must be addressed (refer to Appendix G). 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. This request will aid API in policing its licensees and brand and is critical to this end. The committee recommends moving this to a Voting Item but advocates a delayed enforcement date for invoices and receipts to allow retailers to modify their systems.

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. There was support from the Western Petroleum Marketers Association. The 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 committee recommended moving this item to a Voting Item.

At the 2011 SWMA Annual Meeting Mr. Ferrick, API, 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 committee recommended the item be placed as a Voting Item with a July 2013 implementation date.

Additional submissions have been part of the L&R Committees consideration. Please refer to Appendix G to review these documents.

237-5 Section 3.15. Biodiesel and Biodiesel Blends

Source:
Southern Weights and Measures Association (2010)

Purpose:
Remove the exemption for declaration of biodiesel content on product transfer documents for biodiesel blends up to 5%.

Item Under Consideration:
Amend the *NIST Handbook 130*: Engine Fuels and Automotive Lubricants Regulation as follows:

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. ~~b~~**B**iodiesel 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 that 6 mm (¼ in) in height by 0.8 mm (1/32 in) stroke; block style letters and the color shall be in definite contrast to the background color to which it is applied.

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 ~~on an invoice, bill of lading, shipping paper, or other document.~~ **shall be disclosed on all transfer documents.** ~~This documentation is for dispenser labeling purposes only; i~~**I**t 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.

(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 Department of Agriculture, at least one major truck stop operator has already voiced concerns to the FALS chair. 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 chair get the proposal out to all members of the FALS for their comments before NCWM Interim meeting in January 2010.

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. ~~b~~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 that 6 mm (¼ in) in height by 0.8 mm (1/32 in) stroke; block style letters and the color shall be in definite contrast to the background color to which it is applied.

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**)

The SWMA committee recommends moving this item forward to NCWM committee agenda as a Voting Item.

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 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 received seven letters (refer to L&R Appendix D within the *Report of the 95th NCWM* Annual Meeting [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 comingling of fuels. If fuel is comingled, it would need to be sampled every time, which could be quite costly.

An official would like to see this item move forward as a Voting Item. This official would like the spring Regional meetings (NEWMA and CWMA) to review and further develop the language. 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.

At the 2010 NEWMA Annual Meeting a comment was heard from a stakeholder that the FTC has not changed the existing posting rule. The committee recommends that this item remain an Information 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 consumers, marketers, and the environment and renewable fuels. One question that needs to be addressed is: 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 recommends that the scope include all blending components.

It was recommended by the CWMA committee that this item move forward as an Information Item and that FALS form a task force under their guidance, to help further develop this proposal.

At the 2010 NCWM Annual Meeting the committee received numerous letters (refer to Appendix D 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. Currently, 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 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 committee agreed to allow time for the FALS 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 RFS2, 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. She believes that we have not heard from all segments of the industry regarding this proposal. She 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 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 committee 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 stated that all shipping documents should show the exact blend of biodiesel. The associations recommend that this item remain an Information Item.

At the 2010 NEWMA Interim Meeting, the committee received written comments from API (refer to Appendix H). The committee recommends that this item move forward as an Information 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. Mr. Howell, MARC-IV, and Mr. Bell, Echols Oil Company, Inc. will co-chair this subcommittee. The committee received five letters (refer to Appendix G) but no comments were received from the floor during Open Hearings. Since the committee received correspondence on the item, they were surprised that no one spoke to it at the Open Hearing. The committee recommends that this item move forward as an Information Item.

The FALS reported that a smaller work group of its members plan to complete a report that will contain possible solutions and present it to FALS at the 2012 NCWM Interim Meeting in January.

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 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 is 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 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 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 RIN credits 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. Because the FALS is currently gathering information on this item the committee recommends that it remain an Information Item.

At the 2011 WWMA Annual Meeting there were no comments heard. The committee would like to get a recommendation from FALS before taking further action so the recommendation is to make this an Information Item.

At the 2011 NEWMA Interim Meeting is was agreed that any action taken should be consistent with other federal agency labeling. The committee recommended keeping the item an Information Item.

At the 2011 SWMA Annual Meeting a representative of the National Biodiesel Board conveyed a message on behalf of the chair of the FALS, that it will meet before the Interim Meeting and provide a report to FALS for the L&R Committee. The committee therefore recommends the item remain as an Information Item.

If you would like to participate in this Biodiesel Disclosure Task Group Subcommittee, contact Mr. Steve Howell, MARC IV (816) 903-6272, email showell@marciv.com or Mr. Samuel Bell, Echols Oil Company, Inc., at (864) 233 -6205, email info@scpma.com.

Additional submissions have been part of the L&R Committees consideration. Please refer to Appendix H to review these documents.

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

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 EPA Misfueling Mitigation final rule from July 25, 2011.

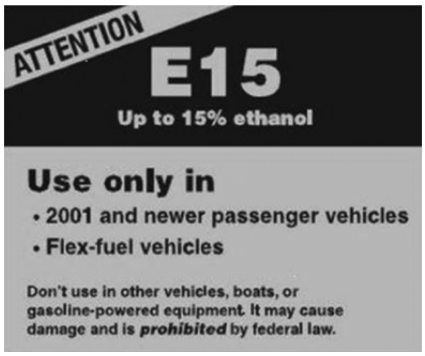
Item Under Consideration:
Amend the *NIST Handbook 130*: Engine Fuels and Automotive Lubricants Regulation as follows:

> **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 (vol%) up to 15 vol% ethanol (E15) under 40 CFR §80.1501.**
>
> **(Added 20XX)**

Background / Discussion:
EPA included mandatory fuel dispenser labeling in the final rule. See section 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 misfueling. On July 25, 2011, EPA finalized the "Regulation to Mitigate the Misfueling 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, 3011, Rules and Regulations) *NIST Handbook 130*, Section 3, 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 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 believe the *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 committee 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 committee would like FALS to review this item at their meeting prior to the 2012 NCWM Interim Meeting. The committee recommends the item as an Information 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 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. The committee recommends that the item is an Informational Item.

237-7 Section 4. Retail Storage Tanks and Dispensers

Source:
Missouri Department of Agriculture (2012)

Purpose:
Amend *NIST Handbook 130:* Section 4.3.1 Dispenser Filters of the Engine Fuels and Automotive Lubricants Regulation

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.

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 20XX**)

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 committee believes that language needs to be developed before this proposal can be considered. The committee 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 committee after further review and discussion with a FALS member modified the proposal as stated below and places 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.

237-8 Section 4.3. Dispenser Filters

Source:
Missouri Department of Agriculture (2012)

Purpose:
Amend *NIST Handbook 130*: Section 4.3.1 Dispenser Filters of the Engine Fuels and Automotive Lubricants Regulation

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.

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 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 committee supports moving the item forward as a Voting Item.

At the 2011 WWMA Annual Meeting concerns were brought forward about needing more technical information, the flow rate being 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 committee does not believe there is sufficient data to justify addressing this issue. The committee recommends that the submitter provide additional studies and technical documents to support this proposal. It is recommended that the item is 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. Because the proposal has potential given input from industry and NCWM members the committee recommends this item 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). His company's engineers have determined that reducing a 30 micron filter to a10 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 committee believes this proposal is not practical and would have a negative impact and undue burden on the trucking industry. The committee recommends this item be Withdrawn.

237-9 Requirements for Hydrogen

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

Purpose:
Adopt hydrogen engine fuel quality requirements to address gaseous hydrogen refueling applications.

Item Under Consideration:
Amend the *NIST Handbook 130*: Engine Fuels and Automotive Lubricants Regulation as follows:

Specification for Hydrogen Fuel: The Fuel Specifications Subcommittee (FSS) identified several quality criteria where there was tentative agreement with their associated values (see properties 6, 7, 8, 9, 12, 14, and 16 which are highlighted in green) in the proposed Table 1. Hydrogen Fuel Quality Specification. When a quality property and numerical value (defining a maximum or minimum limit) is added to the specification, appropriate test methods must then be identified. As test methods are identified and adopted by the FSS, they will be added to column 6 (test methods) in Table 1. The FSS did not agree on all of the properties contained in the California Division of Measurement Standards proposal because there was either not enough research data or test methods available to support a decision (see properties 1, 2, 3, 4, 5, 10, 11, 13, and 15. These and perhaps other properties will receive further consideration by the FSS and may be added to the quality standard in the future when such action is supported by research.

In April 2009, at the U.S. National Work Group on hydrogen (USNWG) meeting held in Sacramento, California, they further refined the definitions for hydrogen vehicle fuel based on work by SAE International. The definitions were modified to include more technically correct language and the text is in alignment with the widely recognized *Bosch Automotive Handbook*. In January 2010, a column was added to Table 1 to reflect the responsible standards committee and the status of the test method.

Table 1. Hydrogen Fuel Quality Specification*

	Constituent	Value	Unit	Limit	Test Method(s)	Responsible Standards Committee and Status of Test Method
Standard Practice for Gaseous Sampling					ASTM D7606-11	
1	Hydrogen Fuel Index	99.97	%	Minimum	(a)	
2	Total Allowable Non-Hydrogen, Non-Helium, Non-Particulate	100.0	ppm v/v	Maximum	(b)	
3	Total Non-Hydrogen Gases	300.0	ppm v/v	Maximum	(c)	
4	Ammonia	0.1	ppm v/v	Maximum	ASTM D7653-10	
5	Carbon Dioxide	2.0	ppm v/v	Maximum	ASTM D7653-10	
6	Carbon Monoxide	0.2	ppm v/v	Maximum	ASTM D7649-10	
7	Formaldehyde	0.01	ppm v/v	Maximum	ASTM D7653-10	
8	Formic Acid	0.2	ppm v/v	Maximum	ASTM D7653-10	
9	Helium	300.0	ppm v/v	Maximum	ASTM D7550-09	
10	Nitrogen and Argon	100.0	ppm v/v	Maximum	ASTM D7653-10	
11	Oxygen	5.0	ppm v/v	Maximum	ASTM D1945-03	
12	Particulate Concentration	1.0	mg/kg	Maximum	ASTM D7649-10	
13	Total Halogenated Compounds	0.05	ppm v/v	Maximum	ASTM D7649-10	WK 23815 under ASTM D03.14
14	Total Hydrocarbons	2.0 (d)	ppm v/v	Maximum	ASTM D7650-10	
15	Total Sulfur Compounds	0.004	ppm v/v	Maximum	ASTM D7651-10	
16	Water	5.0	ppm v/v	Maximum	to be specified	

a. Hydrogen fuel index = Sum of all non-hydrogen gases (as % of sample) subtracted from 100%.
b. Total Allowable Non-Hydrogen, Non-Helium, Non-Particulate = Sum of all constituents listed on the table, except hydrogen, helium, and particulates.
c. Total Non-Hydrogen Gases = Sum of all constituents listed on the table except hydrogen and particulates.
d. 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 www.ftc.gov/bcp/edu/pubs/business/autos/bus29.shtm) requires dispensers to bear a declaration of the 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 7/12/2011)

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 rather than after this is a commercial application. This effort by the USNWG 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.

The USNWG 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 will 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.

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 are recommending this item remain a Developing Item.

At the 2009 Interim and Annual Meetings, the NIST Technical Advisor briefed the committee on work that the USNWG FSS has done to date (refer to L&R Appendix J in the *Report of the 94th NCWM* [SP 1099, 2009]).

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

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

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

At the 2010 NCWM 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.

At the 2010 NEWMA and CWMA Annual Meeting, no comments were received on this item and both associations are recommending that this item move forward as an Information Item.

At the 2010 NCWM Annual Meeting Mr. Jennings, Tennessee Department of Agriculture, informed the conference that 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 Meeting a representative of the USNWG 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 committee recommended that the proposal be further developed by the FALS due to their expertise in this area.

At the 2010 WWMA Annual Meeting a state official, who is also a member of the USNWG, 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." The second item would address "Definitions" with the existing language and definitions as recommended by the USNWG FSS. The state official commented that work has been done by the USNWG on definitions and that moving the terms to a vote would help move the implementation and acceptance of hydrogen. It was stated that "specifications" could take years to develop. The committee agreed with the recommendation in having the definitions as a separate item (refer to Item 237-10). The committee recommends that this item remain an Information 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 committee also agreed to separate these two items. The committee recommends moving the fuel quality proposal forward as an Information Item.

At the 2010 NEWMA Interim Meeting, there were no comments heard on this item. The committee recommends moving forward the fuel specification portion as an Information Item. The recommendation for the definitions is documented in Item 237-10.

At the 2011 NCWM Interim Meeting the NIST Technical Advisor submitted an updated Table 1. Hydrogen Fuel Quality Specification that was received from the USNWG. The USNWG also submitted the following updated specifications for the allowable level of the constituents listed in Table 1. for hydrogen fuel 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.

Additional information on this hydrogen proposal and the corresponding method of sale regulation and hydrogen gas measuring devices code adopted in 2010 can be found at www.nist.gov/pml/wmd/lmdg/hydrogen.cfm. For additional information on this item, contact Mr. Marc Buttler at marc.buttler@nist.gov or (301) 975-4615.

At the 2011 NCWM Annual Meeting, Ms. Williams, NIST Technical Advisor and U.S. National Work Group Representative provided the committee updates to Table 1 Hydrogen Fuel Quality Specification.

At the 2011 CWMA Interim Meeting the committee heard support from a state regulator to move 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 comments it was agreed that additional work is needed by the work group. The committee recommends keeping the item an Information Item.

At the 2011 WWMA Annual Meeting Ms. Macey, California Division of Measurement Standards, spoke on behalf of the U.S. National Hydrogen Work Group (USNHWG) and CA stating there is still work being done on this item. Ms. Macey noted that this item is ready for a vote. The committee fully supports this item. If updates are received from the USNHWG, the committee would like the national L&R Committee to have editorial privileges with any information that they receive. The committee fully supports any work done by the USNHWG. It is recommended to move this item to a Voting Item.

At the 2011 NEWMA Interim Meeting there was a presentation on Hydrogen Fuel Purity made by Mr. Collins, UTC Power. The committee recommends that the item remains an Information Item.

At the 2011 SWMA Annual Meeting a NIST Technical Advisor reported that the USNWG on Hydrogen recommended that Table 1 be deleted and substituted with a reference to SAE J2719. This fuel quality standard for hydrogen by direct reference to SAE standard J2719 is proposed to replace entirely the previous table that had been developed by the USNWG to reflect the constituents, maximum allowable levels, and corresponding ASTM test methods. The USNWG had developed the table to be harmonized with the developing SAE J2719 standard. Now that 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 USNWG 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 confirmed by the NIST Technical Advisor.

The USNWG will continue to accept input and work on this item as needed until NCWM interim meeting in January.

The recommended changes are as follows:

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

The SWMA committee supports the USNWG proposal and recommends the item move forward as a Voting Item.

237-10 Definitions for Hydrogen Fuel for Internal Combustion Engines and Fuel Cell Vehicles

Source:
Western Weights and Measures Association (2011)

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

Item Under Consideration:
Amend the *NIST Handbook 130*: Engine Fuels and Automotive Lubricants Regulation as follows:

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

2. Definitions

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)

Background / Discussion:
In April 2009, the USNWG for the Development of Commercial Hydrogen Measurement Standards FSS presented the previous recommended definitions for consideration.

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

At the 2010 WWMA and SWMA Annual Meetings and the 2010 NEWMA Interim Meeting, the associations made the recommendation to have the definitions for hydrogen fuel for internal combustion engines and fuel cell vehicles considered as a separate item. All of the associations are recommending this item move forward as a Voting Item. (Refer to Item 237-9 above for additional background information)

At the 2011 NCWM Interim Meeting a NIST Technical Advisor reported that the USNWG for hydrogen supports this item and recommends it be adopted by NCWM. The committee recommends this item for adoption by NCWM.

At the 2011 CWMA a state regulator acknowledged the work group was still working on the proposal; some fine tuning is needed before the work group will submit an amended proposal. The committee recommends the item remain an Information Item.

At the 2011 WWMA Annual Meeting Ms. Macey, California Division of Measurement Standards, spoke on behalf of California and the USNHWG and showed support of this item to move forward as a vote. The committee fully supports the work of the USNHWG and therefore recommends moving this forward as 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 and recommends moving the item to a Voting Item.

At the 2011 SWMA Annual Meeting a NIST Technical Advisor stated that he USNWG held a meeting on Oct. 12, 2011, to allow for further discussion and to take into account comments heard at NCWM in July of 2011. Final approval of the update was confirmed during this meeting.

In addition, it is proposed that the scope of Item 237-2 be expanded to include the following revision to *NIST Handbook 130* – IV. Uniform Regulations - B. Uniform Regulation for the Method of Sale of Commodities, Section 2. Non-food Products, Paragraph 2.32.1. Definitions for Hydrogen Fuel. as follows:

> **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.

The purpose of adding this change to the Method of Sale Regulation is to avoid confusion and maintain consistency between the definitions of Hydrogen Fuel found in the two sections of *NIST Handbook 130* –IV. Uniform Regulations (i.e., the Method of Sale Regulation and the Engine Fuels and Automotive Lubricants Regulation).

The SWMA committee supports the work of USNWG and recommends this item be moved forward as a Voting Item with the recommendations noted above.

237-11 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. A task force was formed under NCWM FALS to begin the review of *NIST Handbook 130* related to these 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 was no input received. It was recommended by the committees that FALS continue it work and the item become a Developing Item.

At the 2011 WWMA Annual Meeting it was recommended that FALS continue working and that the item is considered an Information Item.

At the 2011 SWMA Annual Meeting Mr. 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 committee is waiting on additional information from FALS and recommends the item status as a Developing Item.

250 NCWM POLICY, INTERPRETATIONS, AND GUIDELINES, SECTION 2

250-1 Section 2.7 Technology Difference of Standards

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*:

> **2.7. 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 to 3 in^3 per 5 gallons, 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 US 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 recover 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:
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.

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 US EPA amended the Regulations to force USA 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 US EPA phased in the rollout schedule as follows:

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

The US EPA authorized large metropolitan areas to calculate the population of total vehicles on the road in the non-attainment areas and let them to 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 1 to 3 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 we should use a proving method that 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 committee 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. The 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. It therefore recommends this as a Developing Item.

260 NIST HANDBOOK 133

260-1 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 *NIST 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 MLWG reviewed draft changes that were developed to revise and update *NIST 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 *NIST 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 *NIST Handbook 133*. This regulator was provided with only verbal assistance from NIST, OWM 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 committee 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 committee 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 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; and
- a coordinated effort involving industry, trade associations, weights and measures officials may be required

The WWMA committee 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. It was recommended by both associations that this moved forward as a Developing Item.

At the 2011 NCWM Interim Meeting the NIST Technical Advisor gave an update that the *NIST Handbook 133* had amendments that were voted in at the July 2010 conference. 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 NIST Technical Advisor will set up a workgroup meeting at the 2011 NCWM Annual Meeting. The committee requests that the MLWG meet at NCWM Interim and Annual Meetings to further develop this item. The committee also requests additional input from the regions.

At the 2011 CWMA Interim Meeting no comments were received and it was recommended the item remain an Information Item.

At the 2011 WWMA Annual Meeting Mr. Guay, Proctor 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 committee acknowledges that this item has been on the agenda for several years and no additional comments or recommendations for changes have been brought forward. They recommend this item be Withdrawn so that a better prepared proposal may come forward.

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

At the 2011 SWMA Annual Meeting a NIST Technical Advisor noted that this is not a NIST, OWM workgroup but a NCWM workgroup 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, 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 committee recommends the item remain an Information Item until a new chair can be identified.

260-2 Section 2.3.8. Moisture Allowance – Pasta Products

Source:
Southern Weights and Measures Association (2010)

Purpose:
Establish a moisture allowance for macaroni, noodle, and like products (pasta products).

Item Under Consideration:
Amend *NIST Handbook 133*: Checking the Net Contents of Packaged Goods 1.2. Package Requirements, part (5), a. 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 20~~02~~**XX**)

Amend *NIST Handbook 133*: Checking the Net Contents of Packaged Goods 2.3.8. Moisture Allowances, part b. 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.
Pasta Products	**3%**	**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.**
Borax	See Section 2.4.	
Wet Tare Only[1]		
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%	

Table 2-3. Moisture Allowances		
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 4th 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*: Checking the Net Contents of Packaged Goods 2.3.9. 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 Interim Meeting, the committee heard support for this item from industry and stakeholders. If this item is approved, it will also 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 committee recommends moving the item forward 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. The 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. A weights and measures 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. This item neither passed nor failed vote at the national level and 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 committee recommends 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 committee recommends that any additional data from studies be provided for review. The committee also recommends that this item move forward as a Voting Item.

At the 2010 SWMA Annual Meeting, there were no comments heard on this item. The committee agrees that 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. The committee recommends that this item be Withdrawn.

At the 2011 NCWM Interim Meeting an overview was presented by the National Pasta Association regarding history and studies that have been performed in regard to 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 (refer to Appendix I). Hot, dry and air conditioned store environments have less humidity and will pull moisture from the product. Subsequently tropical, wet and high humidity environment (seldom seen in U.S. stores) will pull moisture into the product. Pasta companies do pack to the law and have documented weight control programs, according to Ms. Hoover, American Italian Pasta Company.

At the 2011 NCWM Annual Meeting the National Pasta Association provided presentations and responded to comments and questions (refer to Appendix I). On a split vote the 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. A state regulator agreed with his statement and recommended the item be Withdrawn. The committee disagreed and believes that moisture loss is a legitimate issue and deserves consideration by NCWM. The committee recommends this as a Voting Item.

At the 2011 WWMA Annual Meeting a state official requested additional information concerning good manufacturing and distribution processes. The committee firmly believes that enough data has been established by industry to address questions regarding moisture allowances with pasta and pasta products. The committee recommends this item move forward as a Voting Item.

At the 2011 NEWMA 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 and the committee recommended that the item be placed as a Voting Item noting that it appears as if proper protocol has been followed by the pasta industry. If states do not support, it is recommended that the reason be provided so their issue(s) can be addressed.

260-3 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 and Soils

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 ($^1/_2$ 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)		
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)		1179.8 mL (72 in^3)
		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)		

Measures are typically constructed of 1.27 cm ($^1/_2$ 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

[1] Other 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.

[2]The height of the test measure may be reduced, but this will limit the volume of the package that can be tested.

[3]When 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.

[4]The Nominal Capacity is given to identity 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. 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.

$$Package\ Error = Package\ Net\ Volume - Labeled\ Volume$$

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 **uncompressed 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 of Commodities section 2.23 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 in^3 expands to 1000 in^3).

(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 committee recommended to move this item to a Voting Item.

260-4 Section 4.7. Polyethylene Sheeting – Test Procedure – Footnote Step 3

Source:
Western Weights and Measures Association (2010)

Purpose:
Provide new density values for heavier density plastics that are now in the marketplace.

Item Under Consideration:
Amend *NIST Handbook 133* the asterisked footnote below Step 3 as follows:

*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.**

Background / Discussion:
Polyethylene bags labeled as 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 LLDP density value (0.92 g/cm³) have an approximately 3% advantage over the distributor that uses the correct, high density, factor.

A proposal was presented at the WWMA 2009 Annual Meeting 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 x 40 in x .4 mil, and a count of 250. Using the only density factor found in HB 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 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 supports this item and recommends that it be a Voting Item.

NEWMA reviewed this item at their 2009 Interim Meeting and proposes this item be a Developing Item.

At the 2010 NCWM Interim Meeting, comments were heard on this item and Item 232-1 together at 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. Currently, 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 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.

A weights and measures 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 x width x thickness x 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. It was voiced that 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 letters that were reviewed on this item (refer to Appendix C). The committee recommends 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 and not presented to industry to seek comments. The committee felt that this item was not an emergency and would like to review comments received by all the regions and industry.

At the 2010 CWMA Annual Meeting there were no comments heard on this item and the committee recommends that this item remain 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 (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, 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 Information status will allow time to receive additional information and data from manufacturers of polyethylene.

The committee believes that additional work needs to be done on this item including reviewing the labeling requirement of polyethylene. This may include requiring a mandatory statement and review of ASTM standards. The status of this item was changed to Informational during the 2010 Annual Meeting.

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

At the 2010 WWMA Annual Meeting, a state 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 this item as amended move forward as a Voting Item.

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

At the 2010 NEWMA Interim Meeting, there were no comments heard on this item. The committee would like this item to move forward as an Information 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. It will provide guidance and language for when the density is not known. The committee recommended the revised language from the WWMA for adoption by NCWM.

This item was scheduled for vote at the 2011 Annual Meeting, however following Open Hearings the committee removed the item from the voting calendar and designated it Informational. The committee would like additional information from the regions and industry for clarification on the language. It is unclear and unknown what the proper density factor is for HDPE or similar worded products.

At the 2011 CWMA Interim Meeting the committee requested more information from the regions and industry; therefore, the item remains Informational.

At the 2011 WWMA Annual Meeting a county official recommended that density be required on the label. The 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. The committee recommends this move forward as a Voting Item as revised. The committee took the existing language out of *NIST Handbook 130* (2011 edition) and edited as shown below.

Final updated or revised proposal recommended by the WWMA:

*~~**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/cm^3 (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/cm^3 (when D is not known).

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

At the 2011 NEWMA Interim Meeting the committee heard no comments and made no recommendations.

At the 2011 SWMA Annual Meeting no comments were heard on this item. It was recommended that this item be placed as a Voting Item pending agreement on the high density.

270 OTHER ITEMS – DEVELOPING ITEMS

INTRODUCTION

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 NCWM L&R Committee. The Developing Items listed are currently under review by at least one regional association, subcommittee, or workgroup.

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 workgroup 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 Fuels and Lubricants Subcommittee

Source:
The Fuels and Lubricants Subcommittee (2007)

Purpose:
Update the Uniform Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation in *NIST Handbook 130* including major revisions to fuel ethanol specifications. 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. All comments should be directed the Mr. Ronald Hayes FALS Chair at (573) 751-4316, ron.hayes@mda.mo.gov, or Mr. David Sefcik, NIST Technical Advisor at (301) 975-4868, dsefcik@nist.gov.

Background / Discussion:
The subcommittee met on January 24, 2007, at 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, Mr. Hayes, FALS Chair, informed the 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 the 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, Mr. Hayes, FALS Chair, informed the committee that FALS is still working on this project. No comments were heard during the Open Hearings, and the committee agrees that this item should remain a Developing Item.

At the 2010 NEWMA Annual Meeting no comments were heard on this item. The committee recommends that this item remain a Developing Item.

At the 2010 CWMA Annual Meeting the NIST Technical Advisor provided information that NIST, OWM has 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, FALS Chair, clarified that this item is for a laboratory guide and that FALS supports NIST, OWM 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.

At the 2010 fall regional meetings, all of the associations are recommending that this item be 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 committee recommended this item move forward as Information Item.

Mr. Hayes, FALS Chair, added that FALS is considering a number of new items including:

- Section 3.2.5. – possible deletion of altitude adjustment for octane and economy grades
- Section 3.2.4. – establish a nozzle requirement for diesel fuel to prevent misfueling of gasoline vehicles
- Section 4.4. – establish nozzle color coding system for retail motor fuel dispensers for product identification
- 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
- Establish regulations to determine if OEM labeled claims for Automatic Transmission & Tractor Fluids are met

At the 2011 CWMA and NEWMA Interim Meetings there were no comments and it was recommended that the item remain a Developing Item.

At the 2011 WWMA Annual Meeting the committee continues to support the work of the FALS and recommends the item move to an Information Item.

If you would like to participate in this subcommittee, contact Mr. Ronald Hayes, Fuels and Lubricants Subcommittee Chair, at (573) 751-4316, ron.hayes@mda.mo.gov, or Mr. David Sefcik, NIST Technical Advisor at (301) 975-4868, dsefcik@nist.gov.

270-2 Packaging and Labeling Subcommittee

Source:
Packaging and Labeling Subcommittee (2011)

Purpose:
Provide notice of formation of a new subcommittee reporting to the L&R Committee.

Item Under Consideration:
None

Background / Discussion:
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 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. PALS will report to NCWM L&R Committee. The NIST Technical Advisor reported that FTC will do a review of FPLA in 2013.

At the 2011 CWMA Interim Meeting the PALS Chair stated the goal is to get going before 2012 NCWM Interim meeting and stated there is a need to prioritize labeling issues. No action was needed the item remains a Developing Item.

At the 2011 WWMA and NEWMA Interim Meetings it was determined the item would continue to be developed.

NCWM has appointed Mr. Christopher Guay, Procter and Gamble,Co., to chair the subcommittee that will include state or local weights and measures officials and representatives from regulated industries. Anyone interested in an appointment to PALS, please contact Mr. Guay at (513) 983 0530, guay.cb@pg.com or Mr. David Sefcik, NIST Technical Advisor at (301) 975 4868, dsefcik@nist.gov.

Ms. Judy Cardin, Wisconsin | Committee Chair
Mr. Louis Sakin, Town of Hopkinton, Massachusetts | Member
Mr. Raymond Johnson, New Mexico | Member
Mr. Tim Lloyd, Montana | Member
Mr. Richard Lewis, Georgia | Member
Mr. Rob Underwood, Petroleum Marketers Association of America | Associate Membership Representative
Mr. Lance Robertson, Measurement Canada | Canadian Technical Advisor
Mr. David Sefcik, NIST, OWM | NIST Technical Advisor
Ms. Lisa Warfield, NIST, OWM | NIST Technical Advisor

Laws and Regulations Committee