WEIGHTS & MEASURES
CONNECTION
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Inside this Issue

National Conference on Weights and Measures

2018 Interim Meeting

January 21 - 24, 2018

St. Pete Beach, Florida

Registration, lodging, agenda, and supporting documentation is available online at:

https://www.ncwm.net/sems/event_detail/2018-interim-fl.

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Consumer and Non-Consumer Labeling

Byline: Lisa Warfield

The Office of Weights and Measures recently requested that the Food and Drug Administration (FDA) clarify the regulations for labeling of consumer and non-consumer packages. Consumer packages are packages intended for sale through retail channels, while non-consumer packages are intended for institutional use and are sold in the wholesale channel to retailers or restaurants. Over the years, the marketplace has changed with the introduction of club type stores that provide consumers the opportunity to purchase both consumer and non-consumer (non-retail) packages. These changes have sometimes led to confusion for both state officials and packers as to how to label packages for sale through wholesale outlets that could also be offered for sale in retail stores.

In clarifying its regulations in Title 21 CFR 101.7(s), the FDA stated that on a multiunit retail packages (consumer package), a statement of the net quantity of contents shall appear on the outside of the package and shall include the number of individual units, the quantity of each individual unit, and, in parentheses, the total quantity of contents of the multi-unit package (refer to NIST Handbook 130, *Uniform Laws and Regulations in the Areas of Legal Metrology and Engine Fuel Quality,"* Uniform Packaging and Labeling Regulation [UPLR], Section 10.4. in Multi-unit Packages). This format allows for consumers to make value comparisons and to make an informed purchase.

The Food and Drug Administration (FDA) also explained that a non-consumer package must bear a label that contains an accurate statement of quantity of contents in terms of weight, measure, or numerical count in accordance with Section 403(e)(2) of the Federal Food, Drug, and Cosmetic Act but these packages are not required to include a statement of total quantity of contents. However, FDA said, if a non-consumer package is offered or exposed for sale at retail, then it would consider it to be a consumer package and the labeling required for a consumer package would apply.

Based on the guidance from the FDA, a non-consumer package, which bears a declaration of net contents as shown below, would meet both the FDA requirements and those NIST Handbook 130 UPLR, Section 7. Declaration of Quantity:

(continued on pg 2)

Non-consumer Packages:

Box of Produce – individual Packages by Net Wt: 8 – 3 LB Bags

Box of Produce – Individual Packages by Count: 12 – 9 CT Bags

Box of Produce – Individual Packages by Net Wt: 12 – 6 oz/170 g

Note: While a total net weight declaration is not required, one may appear on a non-consumer package at the discretion of the packer.

Note: The metric (SI) and U.S. customary systems of weights and measures are recognized as proper measurement systems to be used in declarations of quantity. Units of both systems may be combined in a dual declaration of quantity.

In addition, the declaration of net quantity on a non-consumer package must be accurate and these packages are not exempt from NIST Handbook 130, UPLR, Section 7.5.1. "Symbols and Abbreviations," so all declarations must include the unit of measure. For example:

Acceptable: 10 × 2.5 LB or 10 × 1.1 kg

Not Acceptable: 3 × 2.5 or 10 × 1.1

If you have any questions regarding this matter or need additional clarification, contact the Laws and Metric Program staff at (301) 975-4004.

Employee Highlight

OWM Welcomes Tim Osmer

Byline: Georgia Harris

Mr. Tim Osmer has joined the NIST Office of Weights and Measures (OWM)! Tim began work with OWM on Monday, July 10. He comes to us from the State of New Hampshire, where he worked as a metrologist and managed their NVLAP accredited laboratory from 2005 through 2016. He attended all the OWM laboratory metrology seminars through Advanced Mass and was a regular participant in the annual North-

Photo Credit: Vic Ventura

(continued on pg 3)

Training and Events Calendar

2017

Registration for training in the NIST Office of Weights and Measures is handled by Yvonne Branden at yvonne.branden@nist.gov.

Course descriptions can be viewed on the Office of Weights and Measures website at - https://www.nist.gov/pml/weights-and-measures/about-owm/calendar-events *and clicking on the name of the course.*

October 8 - 11
Southern Weights and Measures Association (SWMA) Annual Meeting
Little Rock, AR
https://ncwm.net/meetings
Contact: Tim Chesser
E-mail: tim.chesser@aspb.ar.gov

October 10 - 11
Handbook 130, Price Verification
Class No. 5476
Held in conjunction with the SWMA Meeting
Little Rock, AR

October 16 - 18 (3 days)
Central Weights and Measures Association (CWMA)
St. Charles, MO
https://ncwm.net/meetings
Contact: Sherry Turvey, sheery.turvey@ks.gov

October 16 - 19 (4 days/32 hr)
MidAmerica Measurement Assurance Program (MidMap)**
Class No. 5469
Lansing, MI

October 19 (2 hr)
Webinar - Internal Auditing Best Practices
2:00 p.m. - 4:00 p.m.
Class No. 5423

October 23 - 26 (4 days)
Retail Motor-Fuel Dispensers and Consoles
Class No. 5524
Harrisburg, PA

October 23 - 27 (5 days)
Handbook 133 - *Checking the Net Contents of Packaged Goods* - Basic
Class No. 5507
Sonoma, CA

October 23 - November 3 (10 days)
Mass Metrology Seminar
Class No. 5456
NIST/Gaithersburg, MD

October 24 - 26 (3 days)
Northeastern Weights and Measures Association (NEWMA)
Portland, ME

(continued on pg 3)

east Measurement Assurance Program (NEMAP) regional training seminars, where he assisted in coordinating proficiency tests in the region and presented training material.

Most recently in New Hampshire, Tim was helping to oversee and provide training to weights and measures officials, licensed service agents, and the weighmaster program in New Hampshire. You may have met him at the Northeastern Weights and Measures Association (NEWMA) meetings. Tim has attended several of the Train the Trainer seminars at NIST, helped with metrology training, including the redesign of the Fundamentals of Metrology course in 2011. He has served as a contract "mentor" to assist the States of Maine, Massachusetts, and Montana in restoring their lab recognition after major staff changes took place.

His primarily focus will be working in the Laboratory Metrology Program where he will participate in training, proficiency testing, and laboratory recognition. Another of Tim's goals will be to work on projects in each one of the four OWM groups to gain a better understanding of all the groups and their functions. Tim will also participate in OWM training and standards development activities with the International Legal Metrology Program, the Laws and Metric Program, and the Legal Metrology Devices Program.

In New Hampshire, Tim was a member of the LEAN Executive Committee and holds several LEAN process improvement certifications. So, we are hoping he will have ideas for improving efficiency and effectiveness in the Laboratory Metrology Program and across the office. He has also been active in New Hampshire with several education outreach events – so we expect he will continue being involved in the ongoing OWM outreach activities.

What Tim says, "I am looking forward to helping Weights and Measures be more successful and prominent in today's society. I especially hope to help the states address the needs for improving hiring standards and compensation to match the new skill sets presented by the technology and complexity of today's weights and measures."

On a more personal note, Tim states that he enjoys gardening, especially growing flowers, vegetables, fruits, and fruit trees; he likes dogs, but doesn't have any; enjoys spending time on the water and with his four nieces and two nephews. From an athletic perspective, he is a former runner and has run one marathon and three "Reach the Beach" (200 mile team relay) races. Tim also volunteered part-time to help coach high school wrestling. One thing he shares with Georgia Harris is standing atop Mt. Washington in New Hampshire, although he hiked to the top of Mt. Washington in the middle of winter! The mountain is home to some of the most dangerous weather in the world!

Metric Interest

The U.S. Is Technically on the Metric System

We invite you to watch this very interesting video discussing the metric system and the definition of a kilogram based on the original artifact. The video has some interesting history and human interest facts included. Enjoy!

http://www.realclearscience.com/video/2017/05/11/the_us_is_technically_on_the_metric_system.html

Contact: James Cassidy,
jcassidy@cambridgema.gov

December 4 - 8 (5 days)
Fundametals of Metrology
Class No. 5505
NIST/Gaithersburg, MD

2018

January 9 - 12 (4 days)
Balance and Scale Calibration and Uncertainties, plus User Uncertainties
Class No. 5519
NIST/Gaithersburg, MD

January 21 - 24 (4 days)
NCWM Interim Meeting
St. Pete Beach, FL
info@ncwm.net or
https://www.ncwm.net/sems/event_detail/2018-interim-fl

February 1 (2.5 hr)
Webinar - Calibration Certification Evaluation
2:00 p.m. - 4:30 p.m.
Class No. 5522

February 5 - 9 (5 days)
Fundamentals of Metrology
Class No. 5514
NIST/Gaithersburg, MD

February 5 - 8 (4 days)
NIST Handbook 133 - *Checking the Net Contents of Packaged Goods* - Volumetric
Class No. 5511
San Diego, CA

February 12 - 16 (4 days)
Fundamentals of Metrology
Class No. 5515
NIST/Gaithersburg, MD

February 15 (2 hr)
Webinar - Conducting an Effective Management Review
2:00 p.m. - 4:00 p.m.
Class No. 5424

March 1 (2 hr)
Webinar - Internal Auditing Best Practices
2:00 p.m. - 4:00 p.m.
Class No. 5425

March 12 - 15 (4 days)
NIST Handbook 130, Uniform Packaging and Labeling Regulation
Class No. 5509
Orange County, CA

March 26 - 29
NIST Handbook 133 - *Checking the Net Contents of Packaged Goods* - Basic
Class No. 5513
Lebanon, MO

(continued on pg 4)

Publication News

Correction for NIST Handbook 130, "Uniform Laws and Regulations in the Areas of Legal Metrology and Engine Fuel Quality"

There is a correction to the text for the section on Uniform Engine Fuels and Automotive Lubricants. During the 2014 NCWM Annual Meeting, the following item was voted on and passed:

> **1.14. Diesel Exhaust Fluid. -** A preparation of aqueous urea [NH2)2CO], containing 32.5 % by mass of technically-pure urea in high-purity water with quality characteristics defined by International Standards Organization's latest version of ISO 22241., "Diesel engines - NOx reduction agent AUS ~~**21**~~ **32**."

This correction is indicated with bold ~~**strikeout**~~ text and **underlined** corrected text. The correction affects the 2015, 2016, 2017 editions of NIST Handbook 130.

Handbook Review

Three Draft Handbooks Have Been Posted for Review

Byline: Georga Harris

Draft Update of NIST Handbook 105-7, Displacement Provers

A draft of this document was previously posted with inputs regarding Full Stroke Closed Loop Provers (CLPs). An alternative draft handbook has been created and all proposed language for CLPs and this draft only retains proposed changes to specifications and tolerances for Displacement Provers. Per the American Petroleum Institute (API), these field standards are no longer called Small Volume Provers, and are now called Displacement Provers.

Draft NIST Handbook 105-9, Full Stroke Closed Loop Volumetric Provers

This draft handbook is specific to the Full Stroke Closed Loop Volumetric Provers (CLPs) for testing Retail Motor Fuel Dispensers.

April 16- 19 (4 days)
NIST Handbook 133 - *Checking the Net Contents of Packaged Goods* - Basic
Class No. 5520
Montgomery, AL

April 16 - 27 (10 days)
Mass Metrology Seminar
Class No. 5516
NIST/Gaithersburg, MD

May 7 - 10 (4 days)
Northeastern Weights and Measures Association (NEWMA)
Saratoga Springs, NY
Contact: jcassidy@cambridgema.gov

May 14 - 17 (4 days)
Handbook 133 - *Checking the Net Contents of Packaged Goods* - Basic
Class No. 5512
Pompano Beach, FL

June 4 - 8 (5 days)
Volume Metroogy Seminar
Class No. 5523
NIST/Gaithersburg, MD

June 5 - 7 (3 days)
NIST Handbook 130 - Uniform Packaging and Labeling Regulation
Class No. 5510
Cleveland, OH

July 15 - 19 (5 days)
NCWM 103rd Annual Meeting
Tulsa, OK
info@ncwm.net
https://ncwm.net/meetings

August 9 (2 hr)
Webinar - Contract Review
2:00 p.m. - 4:00 p.m.
Class No. 5426

August 30 (2 hr)
Webinar - Document Control and Recordkeeping
2:00 p.m. - 4:00 p.m.
Class No. 5427

October 18 (2 hr)
Webinar - Internal Auditing Best Practices
2:00 p.m. - 4:00 p.m.
Class No. 5428

*State W&M labs only or invitation only.
**Regional Measurement Assurance Program "MEMBERS" (State and Industry RMAP member laboratories.)

Draft NIST Handbook 105-X, Master Meters (for use in testing LPG Meters)

This draft has been posted for review for quite some time. This notice serves to extend the time to gather additional comments, as very few people have reviewed this document and provided comments.

To obtain copies of the drafts, log into the OWM Contact System (https://tsapps.nist.gov/WMD/default.aspx) and go to My Items. Then Press the button "Request an Item" (this is before the list of any previous requests you have made.) Select the Item and then press the "Download" button.

All these documents have a review deadline date of December 1, 2017; however, this is not a firm or fixed interval and working group reviews may be conducted before or after this date as appropriate and as resources are available. As NIST publications, reviews of these documents will be conducted among members of the U.S. National Working Group for Alternative Test Methods and any participants submitting comments.

You can review these handbooks and then submit review comments via the OWM Contact System (https://tsapps.nist.gov/WMD/default.aspx). After logging in, follow these steps:

- Select "My Comments" from the menu bar (4th item in from the left).
- Select "Submit" a Comment radio button that is above any lists of comments you may have previously entered.
- Select "Handbook 105-XYZ" from the list

Choices of interest are:

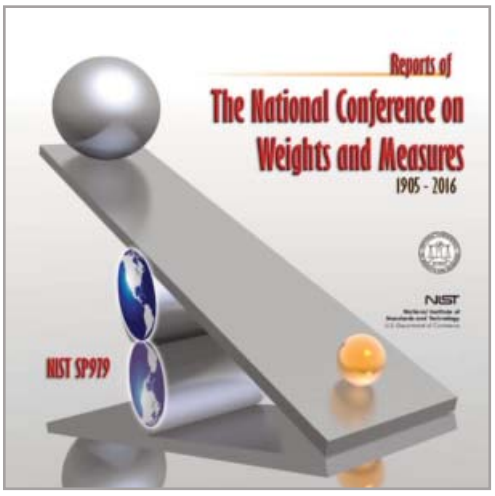
105-X Master Meters

Handbook 105-7 Displacement Provers, and
NIST Handbook 105-9 Full Stroke Closed Loop Volumetric Provers

- Enter your "Section, Page, and Comment."
- Press" Continue."
- Review your submission and press "Edit" or "Submit."

When submitting comments please provide justification and alternative language as appropriate.

New Publications



Updated DVD Released

The NIST Office of Weights and Measures (OWM) recently released an updated version of the compliation DVD for the "Reports of the National Conterence on Weights and Measures 1905 - 2016."

This DVD is an excellent resource for researching past agenda action items. The DVD is searchable by single report or throughout the 102 past Annual Meetings as whole. Many have found the past DVD releases very helpful.

If you did not receive a copy in the mail, the DVD is available in limited qualities from the OWM. You can request a copy by contacting Linda.Crown@nist.gov.

SI Education Chart Now Available

Byline: Elizabeth Gentry

The SI Measurement System (NIST SP 304A) is a colorful chart explaining the seven base units of the SI (International System of Units) and prefix symbols, featuring the Measurement League: Guardians of the SI. The Measurement League are superheroes dedicated to the fight against uncertainty, imprecision, and inaccuracy and to improving the quality of our lives and the things we build.

The Measurement League superheroes include: Mole, Professor Second, Monsieur Kilogram, Mizz Ampere, Dr. Kelvin, Meter Man, and Candela. Three comic book-style video animations are available on the NIST YouTube Channel (links here: https://www.nist.gov/kids).

The superheroes were designed to encourage students to learn about metric measurements as they consider science, technology, engineering, and mathematics (STEM) careers. SI familiarity and fluency must be developed along the STEM career pipeline to prepare the future workers with essential measurement skills.

Additional information regarding education resources for teachers, students, parents, and metrology ambassadors are available online:

- SI Units - https://www.nist.gov/pml/weights-and-measures/metric-si/si-units
- Prefixes - https://www.nist.gov/pml/weights-and-measures/prefixes
- Education Resources - https://www.nist.gov/pml/weights-and-measures/metric-si/si -education training

Please submit requests for hardcopies of this publication to TheSI@nist.gov, download the PDF, or print a copy (https://www.nist.gov/pml/weights-and-measures/publications/metric-publications).

The Office of Weights and Measures

will glady include your weights and measures related events in our calendar.

Contact the Editor: Linda.Crown@nist.gov

The NIST Office of Weights and Measures

homepage: https://www.nist.gov/pml/weights-and-measures