2015 ISSUE 1

NCWM - NEWS

National Conference on Weights and Measures

INSIDE THIS ISSUE

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Chairman's Column

Ronald Hayes, NCWM Chair — Missouri Department of Agriculture

The National Conference on Weights and Measures (NCWM) is approaching its 110th anniversary! As such, I thought it would be interesting to take a look at some of the events occurring around the country when the NCWM was in its infancy. In doing so, I found the following information from the National Association of Convenient Stores (NACS) document entitled "The History of Fuels Retailing":

1893: Charles and Frank Duyea build and test the first American gasoline-powered automobile.

1898: John Tokheim conceives and develops the first gas dispenser pump and first underground storage tank.

1905: NCWM holds its first meeting and, in St. Louis, Missouri, Automobile Gasoline Co., a subsidiary of Shell of California, opens what some people consider to be the first U.S. filling station. Others suggest that the first gas station was opened by Socal in Seattle, Washington, in 1907.

At these early stations, shopkeepers filled five-gallon cans from behind the store and brought it to the customer's car to fill them. {For those of you wondering, this paragraph also contains the answer to the trivia question in the last edition of this newsletter}.

1909: Reighard's gas station in Altoona, Pennsylvania, opens. It is the oldest U.S. gas station still in operation.

1910: Gilbert & Barker Manufacturing Co. (now Gilbarco Veeder-Root) manufactures its first gas pump, using a pull-push motion to draw gas from an underground storage tank. A year later, it introduces its first gas measuring pump.

I encourage you to visit the NACS website (www.nacsonline.com) to learn more interesting facts related to retailing fuels and other historical industry information.

The NCWM Board of Directors received several questions related to voting procedures following the July 2014 Annual Meeting. After the Board reviewed the bylaws, it became evident that different interpretations could be made for the voting outcome. In order to understand the original intent of the minimum vote counts in each house, the Board reviewed the Annual Report of the 62nd NCWM Annual Meeting, when the existing two-house voting system was first presented for consideration. After the Board's review, its decision was to create a proposal that clarifies how the bylaws are being applied so that interpretation is not an issue. The Board's proposal will generate discussion this year. Any other proposals to change how the bylaws are applied could be entertained after the Board's proposal has been discussed. I urge you to review BOD Item 120-5.

Don Onwiler, his staff at NCWM and the 100th Annual Meeting Planning Committee have been very busy setting up this year's special Annual Meeting. Our evening event, to be held at The National Constitution Center, promises to be one you will never forget.

At the December 2014 ASTM D02 Committee meeting held in San Diego, California, FALS Chairman Dr. Matthew Curran and I had the pleasure of presenting the Committee's highest award to Randy F. Jennings from the State of Tennessee at a luncheon in his honor.

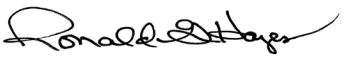
The Sydney D. Andrews D02 Scroll of Achievement Award honors one person who is considered to be the single individual most worthy of recognition because of contributions to Committee D02 achievements and other standardization activities. I cherished this occasion because it's an honor to recognize individuals in the industry who continue to help us advance. The award was presented to a colleague and close friend, Randy Jennings. Next time you see Randy, congratulate him and ask him about his new red suit.

Continued on page 2

Chairman's Column (cont.)

Presenting this award was extra special to me because it was named after a former Florida Director of Weights and Measures whom I had the privilege of knowing during my early years with ASTM and NCWM. I admired Syd both for his wisdom and communication skills during the meetings we attended together.

Until next time!



— Ronald Hayes,
NCWM Chairman, Missiouri

Defensive Driving While Towing a Trailer

by Elizabeth Koncki, Maryland Dept. of Agriculture

Many of you have heard the term "defensive driving", but maybe you may have not been taught the method or its meaning. This short session is to familiarize you with defensive driving in terms of some practices you can easily incorporate into your driving habits that will benefit you. There are two schools of driving techniques: reactive and defensive. Reactive driving happens when you operate your own vehicle and if something in the traffic pattern changes, you react to it as it happens. Defensive driving is a skill set you use to monitor the traffic pattern to anticipate changes, identify potential changes and act to prepare for the potential change in traffic before it happens in order to safeguard you and your vehicle.

This article will be on recognizing potential hazards to reduce collisions that are particular to the type of driving a field inspector does with tips and info on defensive driving. Highlighted will be the specific duties and hazards of driving with a trailer in tow behind a passenger or cargo vehicle, but the main topics are suitable for any driver. Driving larger trucks, like tractor-trailers, is a whole profession and will not be discussed here.

Defensive driving is not difficult. It is a matter of awareness. Once you learn the basics, keep up defensive driving practices until they become a habit. Then, you will have the defensive driving skills at your disposal.

There are 7 basic parts of defensive driving:

- Plan. Prepare for the trip before you start driving.
- Be ready. Do not assume you know what another driver is going to do.
- Be in control. You want to actively be in control of your speed at all times.
- Don't be complacent. The familiar or routine is what we expect. Expect the unexpected.
- Accept that others use the road. Acknowledge others right to be on the road and respect them
- Be prepared for hazards. Be aware of additional hazards from poor road conditions and weather
- Avoid distractions.

Plan your pre-trip and make checks.

The first step to defensive driving starts before you get in your vehicle. You begin your job with the pre-trip. The pre-trip is fundamental to the success of the trip. Pre-trip should include proper maintenance of the vehicle and trailer, route planning, secure cargo loading and minimizing driver distractions. You should also incorporate the simple rule of obeying traffic regulations. Know and understand your local driving laws including DOT rules on trailers. A check list is always helpful. Write it down and then practice it until it becomes habit. A popular way of doing the trailer check list is an actual "walk-around" to touch or see that each item is secure.

Emphasis must be placed on the proper hitching of vehicle and trailer. A universal hitch is not good for all towing needs, so it may not be good for every application. Use the proper hitch and have knowledge of what your hitch is rated for. The best time to find this out is during the purchasing of the trailer.

There are 2 types of hitches: a receiver type and a fixed tongue (fixed draw bar). The hitch will be rated by class (I, II, III, IV) which will give you the tongue weight and the trailer weight. Only tow as much as the hitch is rated for and no more. Class III and IV are compatible with weight distribution hitch systems. Check your local regulations on what is required for your trailer based on its weight and type of trailer. Consider also the laws on what trailers require a brake control system on the trailer.

Before towing, always check that the hitch is properly placed and secured. This is especially important if you did not hitch the trailer yourself. Even if you were hands on during the hitching process and you have left the area, check again.

Continued on page 3

No one likes mischief. Check that the coupler ball socket is secure in the receiver with the coupler latch locking lever in the latched position and secured with locking pin. Pins should be all the way in so that it cannot wiggle out. Most hitches are set up so that the pin cannot be placed until the coupler latch locking lever is all the way in the latched (down) position. Connect the safety chains from the trailer to the receiver, making sure they cross under the trailer tongue and secure to the receiver plate on the tow vehicle so they will "catch" the tongue if the trailer jumps off the ball while in motion. Chains are correctly placed if they give enough slack to make a tight turn, but do not drag. Remember to connect the electrical plug from the trailer to the tow vehicle, once again making sure the cord does not drag but can move during a turn. Finally, attach the breakaway switch lanyard for those trailers with a brake control system. Look at the assembly and go over your hitching checklist to make sure all is in place. Start your vehicle, unchock the trailer wheels and drive a bit to check that ball is seated and secure before going on the road. Everything from the trailer axle to vehicle axle all should be level. This is the time to check the operation of all the trailer lights and that all cargo is secured. Most road laws require signal, brake and running lights to work at all times. If you are working in a team, it does not hurt to have another set of eyes to check the trailer set-up.

Regardless of size, towing a trailer is more physical and mental labor than if simply driving one vehicle. Plan your schedule knowing that you will fatigue more quickly while towing a trailer. The travel time will also be longer, and not because of the added weight. It is because of the slower speed drivers are recommended to drive at. Another planning consideration is the frustration that builds with traffic as you operate the vehicle throughout the course of the day. Know your travel time and the roads of the route before you start.

Be ready for what other drivers may do.

Scan the road and look for where other vehicles are and at what speed and direction they are going. Be aware of traffic. Don't assume a driver will do what you would do in their situation. Defensive driving is all about

minimizing risk by using good driving habits and anticipating traffic changes. Risk is inherent in every endeavor we do. When a driver acts with low regard to the outcome of his/her actions, more risk is assumed than is necessary. These additional driving risks may not result in catastrophe, but it can increase the odds.

Control of the vehicle under your operation helps reduce risk.

So, how does risk increase? You may bring on more risk by your direct actions or the risk may come from exterior sources. First, let's look at internal sources of risky behavior. Do you ever rationalize your actions, such as telling yourself that you are only driving fast because everyone is? Having this mentality does not allow you to be in control at all times while driving. When you are in control of your speed, you are able to manage your vehicle and trailer. You can adjust your speed without having to panic stop or floor the accelerator when you see a car angling for an exit or that other parked car is pulling out. Remember that the trailer you are towing adds yards and minutes to your acceleration and braking abilities. Give yourself enough space between vehicles, in front and behind. Also, expect your driving time to double while towing trailer. Good drivers recognize risk and can react to minimize danger that could result in damage or injury.

Expect the unexpected.

Most of us feel complacent while driving on a familiar route and assume that we know what the traffic will do and what is around each turn. The truth is that you do not know what will happen, though you may have done the same thing hundreds of times. Keep aware and think about your safety before each action. For example, if there was a collision while you were pulling out, the point of impact would probably be the trailer, as the oncoming driver did not expect you have a trailer. If the trailer is struck on its forward side or at its axle, the force of the impact will pull the trailer off the hitch, but not before dragging your vehicle around. The loose trailer can end up almost anywhere and put others at risk, including you. To give a real world example from the Maryland Weights & Measures Department, one of our propane prover trailers suffered an accident after a car impacted the tow vehicle's rear tire. The trailer detached from the tow vehicle and flipped on its side, curving up the trailer deck and shearing off the supports and fittings from the prover. It ended up 20 meters away from the other vehicles.

This was due to the physics of a side impact to the tow vehicle at low speeds, 25 mph. Luckily, there were no injuries.

All the roads are a stage and all the cars merely players.

Every driver has their own agenda or goal. Few of us have time to drive on the road for the pleasure of it. When we do get the chance, it is a fun and rewarding experience. Accept that there are other drivers who are most likely only focused on what they are doing at the time. Some drivers do things that annoy us.

Continued on page 4

However, trying to rationalize why will only distract you from reaching your goal and increase the risk of an accident. Your goal is to get home safe and to do your best to get the vehicle and trailer home without incident. Remember that trailers do react differently than vehicles do to sudden steering movements. Try to avoid any swerve or sudden change in speed and direction when towing a trailer. Trailers tend to push or pull the vehicle while in motion. Brake controllers can help slow a vehicles speed, but cannot stop the trailer and vehicle on their own. Sway control devices remedy some of the sway caused by the forces of air pushing on your trailer. Sway control devices, such as weight distribution hitch with spring bars are very useful and should be used properly and be the correct system for the size of the trailer.

Road hazards.

Weather. Bad weather does two things to the roads. It changes the road surface and reduces visibility. When a road becomes wet from rain or snow, your vehicle is driving on water instead of asphalt. This water mixes with oil and dirt left behind by cars to create a slick surface. Rain, snow and sleet also reduce visibility on the road. Even road spray from a car in front of you can cause visibility issues. Visibility also declines as you increase in speed. The solution is to drive only as fast as you are able to maintain control of the vehicle. No driver has full control of a vehicle on wet road surfaces. Your best option is to drive below the speed limit. In regards to pulling trailers, it's best to remember that trailers don't like to stop when they have no traction.

Roads can also become warped and uneven over time. A very common area for this to occur is at traffic lights. The asphalt here becomes deformed with ruts where cars and trucks have braked. When starting from a full stop, accelerate gradually so trailer tires do not spin on these uneven areas. The condition is magnified if there is standing water. These same ruts make it very hard to get traction to stop at traffic lights. As mentioned, necessary stopping distances double while pulling a trailer. This means you need to plan ahead as soon as you see the light and be prepared to stop. It may be necessary to slow down at all intersections.

Railroad tracks are also very slick. Gravel roads can be unpredictable in that they often have a "corrugated" surface and may start to wash out during rainfall. Scan the road surface as you drive to prepare yourself and your vehicle. Allow a space cushion of 3 seconds for normal driving. Add another 3 seconds for each factor out of your usual driving routine such as towing a trailer, bad weather, suspect driving, feeling ill, or driving at night.

Avoid distractions.

Anything that distracts your focus (wandering thoughts, passengers, phones, eating, reaching for items) off of the view of the road increases the risk of an incident.

In 2012, OSHA asked businesses for help in reducing fatalities from distracted driving by asking employers to "send a clear message to workers and supervisors that your company neither requires nor condones texting while driving..." Studies show that drivers who send or receive text messages focus their attention away from the road for an average of 4.6 seconds. At 55 mph, this is equivalent to driving the length of a football field with your eyes closed.

Operating a vehicle is a skill set you learn. To be effective, you should learn to look, identify and act accordingly in all situations. May this overview presentation assist you in your future driving endeavors. Remember to keep within the law and keep your mind on your safety. Happy Trails!

NTEP Evaluation Verses Initial Verification Inspection

by Darrell Flocken, NTEP Specialist

I have just passed my one year anniversary working for the National Type Evaluation Program (NTEP) and during this time I have experienced many new and interesting things. However, the one thing that has caught my attention is the common misunderstanding of the differences in the roles and responsibilities between an NTEP Evaluation and an Initial Verification Inspection.

Along with a State Inspector and representatives of a local service company, I was conducting an NTEP Field Evaluation on a high capacity Weighing/Load Receiving Element (W/LRE) for the purpose of reducing the emin value from that which was currently listed on the Certificate of Conformance (CC). Upon completing the evaluation, I was asked if I was going to perform any testing on the Indicating Element. I explained that since the evaluation was only to reduce the emin value of the W/LRE, it was not necessary to preform any testing of the Indicating Element. I only needed to confirm that the Indicating Element was traceable to an NTEP CC and that its operational parameters were suitable for this weighing systems configuration.

This explanation surprised the inspector commenting that since this weighing system is being placed into service for the first time, the evaluation required certain aspects of the Indicating Element be tested. It was easy to understand why this comment was made; I responded that this was an NTEP Evaluation on the W/LRE, not an Initial Verification Inspection. I mentioned that the NCWM nor NTEP has the authority to approve instruments; the role of NTEP is to evaluate devices and issue a Certificate of Conformance to those devices that comply. I also commented that he, as the State Authority, should preform the necessary tests to permit the weighing system to be approved for use. I then offered to assist in preforming any additional tests and working together we completed the Initial Verification Inspection. The Inspector and I were satisfied that we had completed our assigned responsibilities; and yes, the weighing system did pass all tests allowing the customer to begin using it for its intended application.

Continued on page 5

NTEP Column: NTEP Evaluation Verses Initial Verification Inspection (cont.)

by Darrell Flocken, NTEP Specialist

By sharing this story, I am not implying that NTEP is not concerned with the overall performance of a weighing system nor to imply that the inspector was incorrect in any way. In fact, the inspector was 100% correct. My intent is simply to point out that NTEP Evaluations and the State Inspections have important yet different roles in the Weights and Measures Community.

An NTEP Evaluation focuses on the design of the element as well as its ability to be installed and configured to meet the specifications mentioned in NIST Handbook 44. In addition, the evaluation confirms that the element can perform within the tolerances mentioned in NIST Handbook 44 when tested within the operational parameters requested by the manufacturer. When the manufacturer believes they have a device or element that conforms to these requirements, one or more samples are provided to NTEP for evaluation. The evaluation is typically more difficult to satisfy because of the changes in environmental influences and often at a reduced tolerance value from those applied when performing an Initial Verification Inspection. When performing an NTEP evaluation in the field, NTEP does not consider requirements that are site specific such as the approach requirements for vehicle scales or the "position of equipment" requirement. Complying with such requirements is left to the state or local weights and measures authority.

The NTEP evaluation and the traceability of the device to an NTEP CC is intended to provide the inspector with a basic level of confidence that the weighing system he or she is testing can comply with the specifications and tolerances. However, this basic level of confidence is not enough, this is where the value of the Initial Verification Inspection takes over. This inspection is conducted to ensure that this specific weighing system's installation and operation meets all of the applicable requirements and is suitable for its intended application.

While each have their own intended goal, one can not replace the other; only the combination of the NTEP Evaluation and the Initial Verification Inspection can provide everyone with a high level of confidence in the weighing systems performance.

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WinWam Device Inspection Software provides a comprehensive database of business establishments with a complete inventory of devices. Full detail inspection data allows management the ability to better measure economic impact of the W&M program.

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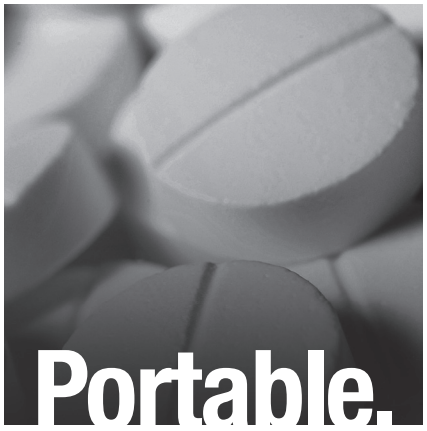

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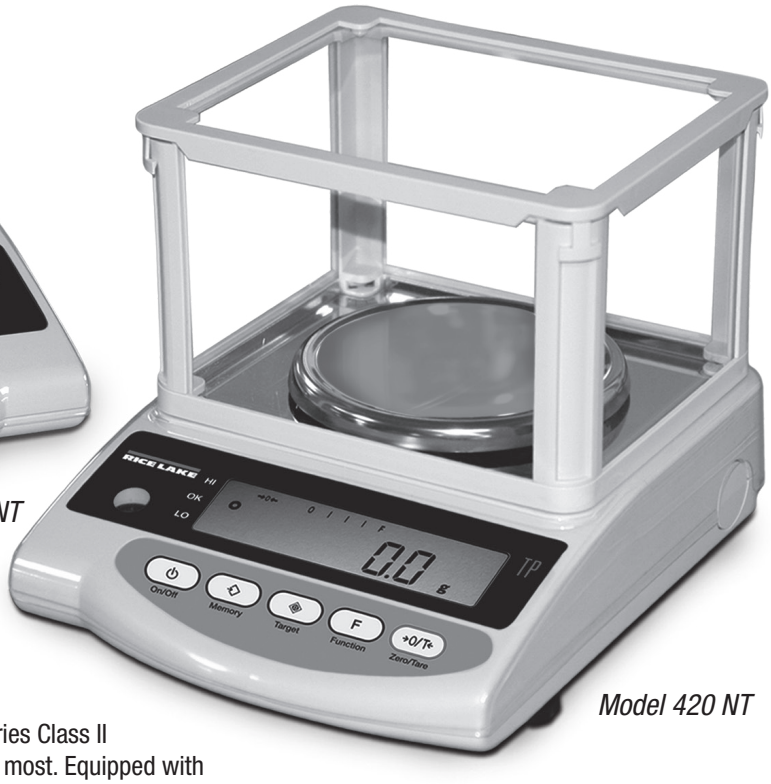

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Laws and Regulations Committee Interim Agenda

by Rich Lewis, Active L&R Committee Chair, Georgia

The 2015 Laws & Regulations Committee Interim Agenda consisted of 12 Items. Presentations and written testimony submitted to the Committee are available on the NCWM website. The Fuels & Lubricants Subcommittee, the Package & Labeling Subcommittee, and the Natural Gas Steering Committee all met at the Interim Meeting and reported to the L & R Committee.

The L&R Committee designated the status for each of the agenda items as follows:

221 NIST HB 130 – UNIFORM WEIGHTS AND MEASURES LAW

221-1
Section 1.8. Net "Mass" or Net "Weight"
Withdrawn

231 NIST HB 130 – UNIFORM PACKAGEING AND LABELING REGULATION

231-1
Sections 6.4., 6.5. and 6.7. Tables
Voting with minor amendments

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

232-1
Section 1.5. Meat, Poultry, Fish, and Seafood
Informational

232-2
Section 2.20.3. Street Sign Prices and Advertising
Withdrawn

232-3
Section 2.23. Animal Bedding
Voting

232-4
Section 2.27. Retail sale of natural gas sold as a vehicle fuel.
Voting with modifications

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

237-1
Section 1 Definitions, Section 3.11. Compressed Natural Gas, Section 3.12. Liquefied Natural Gas
Voting with modifications

237-2
Sections 2.1.3. Minimum Antiknock Index (AKI), Section 2.1.4. Minimum Motor Octane Number and Section 3.2.5. Prohibition of Terms – Table 1
Informational

237-3
Section 4.3. Dispenser Filters
Voting

260 NIST HB 133

260-1
Section 2.7. Chitterling Test Procedure
Voting

260-2
Section 3.9. Dimensional Test Procedure for Verifying the Compressed Quantity Declaration on Packages of Peat Moss and Animal Bedding
Voting

260-3
Section 3.15. Test Procedure for Verifying the Expanded Volume Declaration on Packages of Animal Bedding
Voting

270 OTHER ITEMS- DEVELOPING ITEMS
270-1 Fuels and Lubricants Subcommittee
270-2 Packaging and labeling Subcommittee
270-3 Moisture Allowance Task Group

Professional Development Committee Interim Agenda

by Cheryl Ayer, Committee Chair, New Hampshire

The success of professional development within weights and measures is dependent on each individual and jurisdiction. The work of the PDC is designed to raise the bar for regulators and service companies and provide tools for successful training, evaluation of knowledge and understanding, and safety on the job.

410 EDUCATION

410-1 I Professional Certification Program
Three new exams are very near completion. The Vehicle Tank Meter exam has been delivered to NCWM headquarters and will soon be released with the Medium and Large Capacity Scales exams to follow.

Subject matter experts are being recruited to assist with the creation of the LPG and Price Verification exams. Individuals who are proficient in these disciplines are encouraged to contact Ross Andersen, the Certification Coordinator. Future exams will be created in the following order:

- Mass Flow Meters
- Packaging and Labeling
- Precision Scales

The successful creation of these exams depends on willing subject matter experts. The Committee thanks the subject matter experts who have given of their time in the advancement of the Certification Program.

The number of professional certificates NCWM has issued from inception to September 30, 2014 equals 310 certificates. Of the certificates issued, six have been issued to individuals in the private sector and the balance have been issued to regulators within 30 different states.

The Committee's goal is to make sure the exams stay meaningful and current as handbook changes are adopted. As the Committee works to improve the exams and the exam experience, we look toward the future of the program and explore possibilities of accreditation, proctored exams, changes in examination protocol, and the possibility of intermediate exams.

410-2 I Training
The newly created Model Field Training Program is designed to assist weights and measures administrators and training officers in verifying and documenting progress toward successfully training new inspectors. The program is available on the NCWM website.

We thank Michael Cleary, who chaired the sub-committee, and all the sub-committee members. If you have any suggestions, recommendations, or you need support for

successful implementation, please contact Mr. Cleary at (916)483-8498 or by email at mcleary55@sbcglobal.net.

A training video on retail motor fuel dispensers was recently released by the NIST Office of Weights & Measures. This video demonstrates and describes the minimum tests of a retail motor fuel dispenser in accordance with NIST Handbook 44. OWM is working on a small capacity scales training video which will be available later this year. OWM would like feedback on the training videos and ideas for future training topics.

410-3 I Instructor Improvement
Through a NIST-sponsored Train the Trainer course, trainers from throughout the country have been taught skills tailored to adult learning and have participated as trainers in NIST classes on various weights and measures topics. NCWM's Associate Membership Committee has funds available for these trainers to facilitate a class in your jurisdiction.

410-4 I Recommended Topics for Conference Training
The Board of Directors has charged the Committee with recommending appropriate topics for the technical sessions at future annual meetings.

The Committee recommends NCWM consider offering training on the following items:

- Building a Safety Plan for your Organization;
- Small Volume Provers (including operation, use, and interpretation of the data);
- Electric Vehicles: an overview of the test procedure and test equipment; and
- Public Relations: establishing and promoting good customer relations.

420 PROGRAM MANAGEMENT

420-1 I Safety Awareness

One of the goals of the PDC for 2015 is to address and educate jurisdictions on safety awareness. Julie Quinn (MN) provided a presentation during the Committee's open hearings on Minnesota's experiences in working to improve safety in their field inspection program. Ms. Quinn proposed using this item on the Committee's agenda as a mechanism for sharing information and safety-related incidents within the inspection community. Minnesota is currently putting together a "Field Level Hazard Assessment" checklist to assist inspectors in reviewing potential risks at different field sites. Ms. Quinn asked for jurisdictions or companies to share with the PDC any such checklists they are currently using. The Committee would like to use this agenda item as an ongoing focal point for sharing safety-related information and as a mechanism for assisting jurisdictions in developing and improving the safety component of their field inspection programs.

The Committee expresses their appreciation for the regional safety coordinators and for the safety-related articles that are submitted for the NCWM newsletter.

Continued on page 11

Professional Development Committee Interim Agenda (cont.)

Region	Issue/Article	Deadline	Published
WWMA	2015, Issue 2	17-Apr-15	May
CWMA	2015, Issue 3	14-Aug-15	September
NEWMA	2016, Issue 1	15-Jan-16	February
SWMA	2016, Issue 2	15-Apr-16	May

420-2 I PDC Publication

The PDC will work with NCWM Headquarters to provide hyperlinks in the exam announcement to the EPOs, handbooks, and study aids, including modules and supplemental courses.
Updated EPOs will soon be posted to the NIST website and an announcement will be sent to all NCWM members when they are available. In the meantime, if anyone needs a copy of a particular EPO, please contact Tina Butcher, NIST OWM, at tbutcher@nist.gov.

Specifications and Tolerances Committee Interim Agenda

Mahesh Albuquerque, Committee Chair, Colorado

At the 2015 Interim Meeting, the NCWM Specifications and Tolerances Committee has set the status of agenda items as follows for the 2015 NCWM Annual Meeting.

VOTING ITEMS

General Code
310-2 G-UR.4.1. Maintenance of Equipment:

Scales Code
320-2 T.N.3.5. Separate Main Elements.
320-4 Part 2.20. Weigh-In-Motion Vehicle Scales for Law Enforcement – Work Group

Belt-Conveyor Scales Code
321-1 A.1. General.
321-2 S.4. Marking Requirements.
321-3 N.2.1. Initial Verification.
321-4 N.2.3. Minimum Test Load.
321-5 N.3.1.1. Determination of Zero.
321-6 UR.1.2. Conveyor Installation.
321-7 UR.3.1. Scale and Conveyor Maintenance. – Belt-conveyor scalesWeighing systems.
321-8 Appendix D – Definitions. weigh-belt systems.

Liquid Measuring Devices Code
330-2 Table S.2.2. Categories of Device and Methods of Sealing.

Mass Flow Meters Code
337-1 Appendix D – Definitions: Diesel Liter Equivalent (DLE) and Diesel Gallon Equivalents (DGE) for Compressed Natural Gas and Liquefied Natural Gas; Definition of Gasoline Gallon Equivalent and Gasoline Liter Equivalent for Compressed Natural Gas; S.1.2. Compressed Natural Gas and Liquefied Natural Gas Dispensers; S.1.3.1.1. Compressed Natural Gas Used as an Engine Fuel; S.1.3.1.2. Liquefied Natural Gas Used as an Engine Fuel; S.5.2. Marking of Diesel and Gasoline Volume Equivalent Conversion Factor; Compressed Natural Gas, S.5.3. Marking of Diesel Volume Equivalent Conversion Factor; Liquefied Natural Gas, UR.3.1.1. Marking of Equivalent Conversion Factor for Compressed Natural Gas, UR.3.1.2. Marking of Equivalent Conversion Factor for Liquefied Natural Gas, and UR.3.8. Return of Product to Storage, Retail Compressed Natural Gas and Liquefied Natural Gas

Taximeters Code
354-1 S.1.1.1. Recording Elements.
354-2 S.1.2. Advancement of Indicating Elements.
354-3 S.1.3.3. Passenger Indications.
354-4 S.1.8. Protection of Indications.
354-5 S.1.9. Recorded Representation.

Other Items
360-3 Appendix D – Definitions. point-of-sale-system.
360-5 Electric Vehicle Fueling and Submetering

INFORMATIONAL ITEMS

Automatic Bulk Weighing Systems
332-1 S.1.4.3. Provisions for Power Loss, S.1.5.1.1. Unit Price., S.1.5.1.2. Product Identity., S.1.6. For Retail Motor Vehicle Fuel Devices Only., S.1.7. For Wholesale Devices Only. , UR.2.7. Unit Price and Product Identity., and UR.2..8 Computing Device.

DEVELOPING ITEMS

General Code
310-1 G-S.1. Identification. – (Software)

Automatic Bulk Weighing Systems Code
322-1 N.1. Testing Procedures.

Liquid Measuring Devices Code
330-3 N.4.1.3. Normal Tests on Wholesale Multi-Point Calibration Devices.
330-4 N.4.2.5. Determination of Error on Wholesale Devices with Multiple Flow Rates and Calibration Factors

Vehicle Tank Meters Code
331-1 N.4.1.4. Normal Tests on Wholesale Multi-Point Calibration Devices.
331-2 N.4.2.1. Determination of Error on Vehicle-Tank Meters with Multiple Flow Rates and Calibration Factors

LPG and Anhydrous Ammonia Liquid Measuring Devices Code
332-2 N.3. Test Drafts.

Mass Flow Meters Code
337-3 N.3. Test Drafts.

Continued on page 12

S&T Committee Interim Agenda (cont.)

Taximeters Code
354-6 USNWG on Taximeters – Taximeter Code Revisions and Global Positioning System-Based Systems for Time and Distance Measurement

Other Items
360-2 Appendix D – Definitions: calibration parameter and multi-point calibrated device.
360-4 Appendix D – Definitions: Remote Configuration Capability

WITHDRAWN ITEMS

Scales Code
320-1 A.1. General.
320-3 Table 7a. Typical Class or Type of Device for Weighing Applications

Automatic Weighing Systems Code
324-1 A.1. General.

Liquid Measuring Devices Code
330-1 A.1. General.

Mass Flow Meters Code
337-2 S.3.6. Automatic Density Compensation.

Mulit-Dimension Measuring Devices Code
358-1 Measurement of Bulk Material in Open-Top Truck and Trailer Units

Other Items
360-1 Appendix D – Definitions: batching system.

NCWM WELCOMES NEW MEMBERS (8/20/14 - 1/28/15)

Chris Thompson
3LOG Systems, Inc.
Hassan Farzadeh
Aeon Blue Software
Tyler Fisher
AgPoint Precision, LLC
Alan Mohler
Alberen Electronic
Talha Ozay
Aloha Data Systems, Inc.
Kenneth Farley
Ardent Mills
Kenneth Burns
Arizona Dept. of Weights and Measures
Kade Creviston
Cesar Rodriguez
Arkansas Bureau of Standards
Lowell french
Jack Newberry
Josh Murray
Brian Terry
BETA Fueling Systems
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Connecticut Dept. of Consumer Protection
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Intersystems
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Kansas Dept. of Agriculture
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Sherry Turvey
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Jacob Ketron
Patrick Lynch
Brenda Geist
Charles Stutesman
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Keller and Heckman, LLP
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Kraus Global, Inc.
Matt de Witt
L.A. County W&M
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Bob Riley
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Adam Stamp
Jacob Travis
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Krystal Kargle
Trish Lang
Susan Brinkman
Neste Oil
Dayne Delahoussaye
Network Engineering Technologies
Jim Jackson
Nevada Division of Measurement Standards
Christian Rodriguez
Joeseph Starnes

Continued on page 13

NCWM WELCOMES NEW MEMBERS (8/20/14 - 1/28/15)

New Mexico Dept. of Agriculture
Jacob Meairs
Lorenzo Mireles
New York Black Car Fund
Ira Goldstein
New York City Taxi and Limousine Commission
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Mark Dequaine
Keith Garbe
Alicia Clark
Erin O'Brien
Young Business Systems, dba Four Lakes Business Systems
Jeffrey Kaiser

NCWM thanks you all for getting involved and making a difference in the field of weights and measures!

National Conference on Weights and Measures / National Type Evaluation Program

2015 Annual Meeting Registration Form

July 19-23, 2015 / Philadelphia, Pennsylvania

ATTENDEE INFORMATION

Check One: ☐ NCWM Member ☐ Non-Member ☐ Retired Member ☐ Observer

Retired Member: A person who has retired member status, and the same voting privileges as Associate Members.
Observer: A first-time attendee, with no voting rights and will pay additional fees associated with special events.

Member ID #:	Name:	Name for Badge:
Organization / Jurisdiction:		Title:
Street Address:		

City:	State:	Zip Code:	Country:
Phone Number:	Email Address (Required):		

ATTENDEE'S GUEST INFORMATION

Name:	Name for Badge:

REGISTRATION FEES *25.00 FEE WILL BE ADDED TO ON SITE REGISTRATION

	NCWM Member	Non-Member	Retired Member	Observer	Guest
Before June 17, 2015	$400.00	$475.00	$0.00	$200.00	N/A
After June 17, 2015	$450.00	$525.00	$0.00	$250.00	N/A
Sunday OR Tuesday Only	$100.00	$150.00	$0.00	$100.00 Member $150.00 Non-Member	N/A

SPECIAL EVENT FEES

	NCWM Member	Non-Member	Retired Member	Observer	Guest
Chairman's Reception	$0.00	$0.00	$0.00	$35.00/person	$35.00/person
Light Breakfast	$0.00	$0.00	$0.00	$0.00	$30.00/person (4 day package)
Lunch Banquet	$0.00	$0.00	$0.00	$60.00	$60.00
Special Event: **The National Constitution Center** **Business attire please*	$0.00	$0.00	$100.00	$100.00	$0.00 under age 5 $50.00 ages 6-13 $100.00 ages 14 older

PAYMENT INFORMATION

Are You Attending the Chairman's Reception: ☐ Yes ☐ No	Is Your Guest Attending the Chairman's Reception: ☐ Yes ☐ No
Are You Attending the Lunch Banquet: ☐ Yes ☐ No **Contact Elisa Stritt for Vegetarian Options, 402-434-4872*	Is Your Guest Attending the Lunch Banquet: ☐ Yes ☐ No **Contact Elisa Stritt for Vegetarian Options, 402-434-4872*
Are You Attending the Special Event: ☐ Yes ☐ No	Is Your Guest Attending the Special Event: ☐ Yes ☐ No

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No audio or video recording devices are allowed. Written reports will serve as the official record for meetings.

Cancellation Policy

Cancellations received by June 17, 2015 are subject to a 15% cancellation fee. Cancellations received after June 17, 2015 is subject to a 50% cancellation fee. No refunds will be given after the event has commenced. In the case of a state-declared natural emergency a full refund will be issued. Refund requests due to personal medical emergencies shall be considered based on documentation. In such instances, a full refund may be issued. Refunds will only be made on registration fees paid to the National Conference on Weights and Measures.

National Conference on Weights and Measures
1135 M Street, Suite 110 / Lincoln, Nebraska 68508

Event Calendar

Be sure to mark your calendar for all the upcoming NCWM, NIST and regional meetings.

February 2015

NTEP Belt-Conveyor Sector Meeting
St. Louis, Missouri
February 26

March 2015

NTEP Laboratory Meeting
Sacramento, California
March 10 - 12

May 2015

NEWMA Annual Meeting
Saratoga Springs, New York
May 4 - 8

CWMA Annual Meeting
Columbus, Ohio
May 18 - 22

July 2015

***100th NCWM Annual Meeting**
Philadelphia, Pennsylvania
July 19 - 23

August 2015

NTEP Grain Analyzer Sector Meeting
*Live Web Meeting
August 19 - 20

NTEP Weighing Sector Meeting
Denver, Colorado
August 25 - 26

September 2015

NTEP Measuring Sector Meeting
Denver, Colorado
September 15 - 16

NTEP Software Sector Meeting
Denver, Colorado
September 16 - 17

WWMA Annual Meeting
Boise, Idaho
September 27 - October 1

October 2015

CWMA Interim Meeting
St. Charles, Missouri
October 5 - 7

*Further meeting details will be announced closer to the meeting dates at www.ncwm.net/meetings.