

SWMA Professional Development Committee (PDC)

2018 Annual Meeting Report

Mr. Gene Robertson, Committee Chair
Mississippi

INTRODUCTION

The PDC (hereinafter referred to as “Committee”) submits its Report to the Southern Weights and Measures Association (SWMA). The Report consists of the SWMA Agenda (NCWM Carryover and NEW items) and this Addendum. Page numbers in the tables below refer to pages in this Addendum. Suggested revisions to the handbook 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**.

Presented below is a list of agenda items considered by the SWMA and its recommendations to the NCWM Specifications and Tolerances Committee.

Subject Series List

Education	EDU Series
Program Management.....	PMT Series
Other Items.....	OTH Series

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**Table B
Glossary of Acronyms and Terms**

Acronym	Term	Acronym	Term
ADDIE	Analysis, Design, Development, Implementation, and Evaluation	NEWMA	Northeastern Weights and Measures Association
ANSI	American National Standards Institute	NIST	National Institute of Standards and Technology
BOK	Body of Knowledge	OWM	Office of Weights and Measures
CWMA	Central Weights and Measures Association	PDC	Professional Development Committee
ISO	International Standardization Organization	RSA	Registered Service Agents
ICE	Institute for Credentialing Excellence	SME	Subject Matter Expert
NCWM	National Conference on Weights and Measures	SWMA	Southern Weights and Measures
		WWMA	Western Weights and Measures Association

Details of All Items
(In order by Reference Key)

EDU – EDUCATION

EDU-1 I Professional Certification Program

The NCWM presently has six professional certification exams and two basic competency exams. The certification exams include Retail Motor Fuel Dispensers, Vehicle-Tank Meters, Small Capacity Scales, Medium Capacity Scales, Large Capacity Scales, and Basic Package Checking. The competency exams include Basic Weighing Devices and Basic Liquid-Measuring Devices. Certifications must be renewed every five years. The NCWM is implementing a process to notify candidates whose certificates are expiring each quarter.

At the 2018 Annual Meeting, the Certification Coordinator reported on progress on the LPG Liquid Measuring exam. He announced that work was progressing with NIST OWM to implement TP-27, a product of the API, ASTM and Gas Processors Association. TP-27 provides an electronic algorithm for computing temperature corrections to liquid volume that supersedes ASTM Table 24. The work with OWM also corrects minor errors in another table (Table 2) used to calculate uncompensated (gross) errors. OWM used the new tables in training provided in June in Ohio, and they plan to make a broad distribution of the new tables shortly. States will not have to make procedural changes to calculations or forms; just substitute the new tables for the old ones, i.e. new Table 24E for Table 24 and new Table 2 for old Table 2. The NCWM exam will use the new OWM tables and plans to publish them with the exam announcement so people can become familiar with them before taking the exam.

Work is also progressing on the exam for precision scales. These are predominantly Class 1 and Class II devices used in pharmacy, jewelers, and cannabis applications. After that the present priority list has price verification as the next exam in the pipeline. The Committee encourages dialog on the priorities for future development of exams. Please let the Committee know what areas should be getting priority.

The NCWM Board has approved the rules for candidates and proctors. Proctoring is a vital component of any future plans to get our certification program accredited. Executive Director Don Onwiler has worked with counsel to create legal terms of agreement for proctors which will be sent out soon to states so they can begin selecting proctors. The Board decided to send a notice to state directors allowing 30 days for states to get their proctors signed up. After the 30 days, all exams require a proctor. With proctoring in place, the NCWM can begin hosting the basic competency exams. Under the proctoring agreement the proctor's organization will provide the computer access and ensure details in the proctoring agreement are met. Only materials authorized in the exam announcement will be allowed and these will be collected before the candidate leaves the room.

The process for taking an exam will still require the candidate to log in with their credentials. However, the candidate will only get access to the exam after the proctor logs in with their credentials. The candidate may still log in without a proctor to view their exam history and to reprint certificates. Candidates should take care to retain their credentials for this purpose.

Since the Annual Meeting, a few additional changes had to be made to the proctoring rules. These changes attempt to accommodate states that are proctoring the exam for multiple candidates all at the same time. This can create hardships for the proctoring organization in that they would have to have multiple copies of the allowed reference materials, like Handbooks 44 or 133. The NCWM Executive Director has worked out a compromise that allows the use of an electronic version of the reference materials prepared by NCWM and have this accessible on the computer used to take the exam. Alternatively, they could print hard copies of the pdf file for candidates to use during the exam. The pdf file for Retail Motor Fuel Devices, for example, would include Handbook 44 Introduction, General Code, LMD Code, and Appendices A, C, and D. These pdf files will be accessible through the exam announcement

and candidates may download the files to practice with them prior to taking the exam.

In addition, the NCWM has decided to create two tiers of proctors. The first-tier proctor may proctor only basic competency exams for either public sector or private sector candidates. These proctors will be permitted to be direct supervisors of the public sector candidates, which is not permitted in the rules originally proposed for professional certification. The second tier may proctor both basic competency exams and professional certification exams. These proctors may not be direct supervisors of the candidates as originally specified in the proctoring rules.

At its spring meeting, the Board reviewed the proposed exit survey questions prepared by the Committee to get feedback on the certification exams. The Committee met during the Annual Meeting to respond to the Board's concerns regarding the length of the survey and necessity of specific questions. The Committee streamlined the survey and hopes the survey will be implemented in the near future. After taking an exam, the plan is to provide the candidate with a link to take the survey, and a link to the survey from the certification section of the NCWM website.

SWMA Report
<p>Regional recommendation to NCWM on item status:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input checked="" type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>The Chairman informed the conference that since the proctoring started September 1st, the process is working well. Additionally, no other comments were received.</p>

EDU-2 I Training

The purpose of this item is to share best practices and approaches to training in response to the broad training needs of weights and measures jurisdictions and to serve as a link to various training materials on the web.

Tina Butcher (NIST OWM) has continued to provide updates on training provided to the weights and measures community by NIST OWM. At the 2018 Interim and Annual Meetings, Mrs. Butcher provided updates on OWM training for federal fiscal year 2017 and 2018, including upcoming training in the remainder of 2018 and 2019. At the 2018 NCWM Annual Meeting, the Committee agreed that OWM can simplify this in the future by reporting activities based on the calendar year. A full listing of courses completed in 2017 and 2018 can be found in the 2018 PDC Final Report. Upcoming OWM training for the remainder of 2018 and the first part of 2019 is included below for reference.

Packaging & Price Verification

- **NIST HB 133 – Checking the Net Contents of Packaged Goods, Basic**
 - *Upcoming: April 1-4, 2019 – Gaithersburg, MD*
 - *Upcoming: April 15-18, 2019 – Glendale, AZ*

Laboratory Metrology

- **Fundamentals of Metrology**

- *Upcoming: October 29 - November 2, 2018; Feb 4-8, 2019; Feb 11-15, 2019*
- **Mass Metrology Seminar**
 - *Upcoming: Oct 15-26, 2018; March 11-22, 2019*
- **Advanced Mass Seminar**
 - *Upcoming: August 13-23, 2018 and April 29-May 9, 2019*
- **Volume Metrology**
 - *Upcoming: August 12-16, 2019*
- **Selecting Field Standards/Hoisting & General Safety**
 - *Upcoming: September 2018 – WWMA - WY*
 - *Upcoming: October 2018 – SWMA - FL*
- **Regional Measurement Assurance Programs (RMAPs)**
 - MidAmerica Measurement Assurance Program (MidMAP)
 - *Upcoming: October 1-4, 2018*
 - Southwestern Measurement Assurance Program (SWAP)
 - *Upcoming: September 17-20, 2018*
 - Northeast Measurement Assurance Program (NEMAP)
 - *Upcoming: September 10-13, 2018*

Weighing and Measuring Devices

- **LPG Liquid-Measuring Systems**
 - *Upcoming: Spring 2019 - TN*
- **Vehicle-Tank Meters**
 - *Upcoming: Spring 2019 - KS*

General

- **Measurement Systems for Legal Metrology – New Webinar**
 - Intro to measurement system basics, including the use of unit symbols, prefixes, and transitioning within/between measurement systems. Ideal for those unfamiliar with performing unit conversion calculations.

A complete list of upcoming OWM training events is available on the calendar of events on the OWM website at:

<https://www.nist.gov/pml/weights-and-measures/about-owm/calendar-events>

Ms. Butcher noted the NIST Office of Weights and Measures (OWM) has been asked by multiple Regional Weights and Measures Associations (Regionals) to offer training seminars in conjunction with their annual meetings. OWM welcomes and appreciates the opportunity to offer training in this venue and reach multiple jurisdictions at once. To assist in planning for training in 2019 and in developing materials for future courses, OWM has asked for feedback from each Regional. Drawing from its full list of training topics, OWM identified topics on which OWM is prepared to offer training at the 2019 Regional meetings (and would lend themselves to the time constraints of a Regional) as shown below and distributed this list to each Region’s main point of contact at the beginning of June.

Packaging and Labeling and Price Verification:	
	Price Verification Test Procedures (1-2 days)
	Uniform Packaging & Labeling Regulation (4 days)
	Uniform Packaging & Labeling Regulation – Overview (1 day)
	NIST Handbook 133 – Chapters 1 and 2, Gravimetric Testing (4 days)
	NIST Handbook 133 – Chapters 1 and 2, Gravimetric Testing – Overview (1 day)
Devices:	
	Livestock and Animal Scales (3 days)
	Medium-Capacity Scales (3 days)
	Retail Computing Scales (3 days)

Retail Motor-Fuel Dispensers Short Course (3-1/2 days)
Selection and Testing of Reference Scales (1 day)
Vehicle and Axle-Load Scales (3 days)
Vehicle-Tank Meters (3 days)

OWM hopes to identify one or two training topics that would be of interest to multiple Regionals to help maximize the use of its resources in preparing for the training. OWM is also seeking feedback from the Regionals and others on ideas for *future* topics that may be needed to assist jurisdictions with addressing changes in technology and marketplace practices.

OWM discussed these training options with the regions during their scheduled meetings Wednesday morning at the Annual Meeting. Mrs. Butcher also noted OWM would like to use a similar approach of obtaining regional input each year to help OWM better meet any requests for training by OWM that the regions might have.

Regional Association Comments:

The WWMA PDC Committee heard the following comments during its 2017 Annual Meeting Open Hearings and recommends maintaining this item as an Information item on the NCWM PDC Agenda:

- Is there a way to provide more technical training to industry representatives? Several commenters said this would be valuable for them to participate and they would understand the regulator’s perspective more.
- Another commenter stated that it is difficult for businesses to send service agents to trainings that are a week long; it is expensive to have them in training and not working.
- Industry has been participating with some training events with successful results.
- The NIST website is a valuable resource to check for upcoming courses and training dates.
- A suggestion was made that training be offered concurrently with regional conferences, and that planning training twice a year (spring and fall) where one training is independent of a conference.

At its fall 2017 meetings, the SWMA heard no comments on this item and recommends maintaining this item as an Information Item on the NCWM PDC Agenda.

At NEWMA’s spring 2018 Annual Meeting, the PDC NIST Technical Advisor, Tina Butcher, provided an update on all the training NIST has completed in 2017 and year-to-date 2018 as well as upcoming training opportunities. The committee appreciates and supports ongoing assistance provided by NIST technical advisers. NEWMA recommended maintaining this item as an Information Item on the Committee’s agenda.

At CWMA’s spring 2018 Annual Meeting, a suggestion was made that NCWM take over the NIST training to assist with the NIST budget constraints. Comment was made that it may take up to 2 years to get NIST scheduled to provide training. Comment was made that members get hung up on the train the trainer program and that it is everyone’s responsibility to train each other. Comment was made that if NIST is unavailable to provide the training and certificate that receiving the training is more than important than to receive a certificate. The CWMA recommended maintaining this item as an Information Item on the Committee’s agenda.

SWMA Report
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<p><i>(To be developed by source of the proposal)</i></p> <p><input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i></p> <p><input type="checkbox"/> No recommendation from the region to NCWM</p>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>The chairman informed the conference that NIST will use the top 4 or 5 training topics from the list submitted by each of the regions for future training.</p>

EDU-3 I Instructor Improvement

NIST OWM has provided legal metrology training for weights and measures jurisdictions and industry for many years but does not have the resources to respond to the numerous training requests it receives. OWM has long recognized that there are many individuals with extensive legal metrology experience who have the skills needed to provide this type of training. OWM hopes to draw from this pool to develop trainers who can present schools with NIST, thus leveraging NIST resources; providing more timely classes; and providing a way to more broadly share the valuable expertise these individuals possess.

Several years ago, OWM renewed its efforts to develop trainers by providing a grant to the NCWM which is intended to pay travel costs of individuals to travel within their regions to conduct training and to participate in NIST training for trainers. This partnership has enabled NIST to bring in candidates for NIST-sponsored training such as “train the trainer” classes and to participate in NIST technical training schools. Through an application process, in collaboration with weights and measures directors and nominated training candidates, NIST has identified a group of people who are now working with NIST to develop the knowledge, skills, and abilities to work with NIST staff in presenting technical training schools. A number of candidates in the NIST Trainer Program have already served as co-instructors for NIST technical training schools and have done an excellent job. OWM sincerely appreciates the willingness of those trainers and their directors who have supported their participation to devote time to making these seminars successful.

NIST training seminars on field inspection topics are only held a limited number of times each year. This poses a challenge in sustaining regular interaction and involvement of NIST trainer candidates. NIST does not have the resources to develop and sustain the development of all the trainers it has invited to participate in the NIST trainer program activities and events held over the past several years; however, even if a candidate is not designated to participate as an instructor in a NIST seminar, they and their jurisdictions can benefit from the experience and the candidate can still provide valuable training in their jurisdiction and region.

A list of all people who have attended a NIST “Train the Trainer” class or associated event has been posted on the NCWM website. Many people on this list have attended NIST “train the trainer” events and workshops but have not served as co-instructors for NIST classes and, in some cases, have not attended NIST technical training schools in the areas in which they are interested in serving as trainers. Conversely, there are people on this list who have attended the workshops and NIST technical training seminars and have also served as co-instructors in NIST training seminars. Because of the variations in experience levels of individuals on this list and because OWM has not authorized anyone (external to NIST) to independently present “NIST” classes and is still refining the program infrastructure, confusion has arisen in the weights and measures community regarding classes that these individuals may present on their own. NIST and NCWM are considering how to best depict these listings to reflect the status of the trainers listed such that confusion can be avoided in the future

OWM appreciates the strong support of the NCWM, the PDC, the volunteer trainers, and their administrators in continuing to develop the NIST Trainer Program. OWM will continue to provide the Committee with updates on its progress as well as continue to collaborate with and support the Committee in its work.

The Committee continues to hear comments from States expressing appreciation for the NCWM Professional Certification Program and the NIST Training Program. The Committee also heard favorable comments about the training materials and tools provided by NIST, including a video on testing retail motor-fuel dispensers (RMFDs). As noted in Item 410-2, the NIST video is divided into segments focusing on specific parts of the

RMFD test procedure that can be used to supplement and enhance instructor-led training. The video can be accessed through OWM's home page or by going directly to the following link: <http://www.nist.gov/pml/wmd/lmdg/training-materials.cfm>.

The Committee has reiterated multiple times in the past that the responsibility for training employees rests with individual organizations (weights and measures jurisdictions and industry alike). While NIST and other training providers offer excellent sources of training and training materials, organizations must develop and manage their own training programs, including developing trainers; establishing individual development plans for employees; and identifying strategies for continually assessing and responding to training needs. The Committee recognizes that NIST OWM cannot possibly train all weights and measures inspectors in the country. The state and municipal jurisdictions have ultimate responsibility for training and qualifying their personnel. To fulfill this responsibility, jurisdictions should be making individual plans to maintain or bolster their training efforts. NIST OWM should be viewed as one vital resource to support that effort. The Professional Development Committee is another resource. The Committee has created and posted on its website, the "Body of Knowledge" to establish uniform learning objectives for weights and measures professionals. In addition, the Committee has posted a Model Field Training Program document on its website. This program outlines methods to evaluate and document training and offers guidance on training new inspectors and taking steps to ensure their ongoing development.

These initiatives require competent and qualified trainers and a centralized management plan within the jurisdiction. The Committee is continuing to work, in partnership with NIST OWM, to identify the basic competencies of those trainers and training managers so that jurisdictions can find the right people to manage and deliver training internally. It's not enough just to be technically competent in a subject area to be a good trainer or to effectively manage a training program. It takes other tools, such as:

- ability to assess employee competence and training needs,
- ability to create learning materials from technical material,
- ability to use adult learning techniques adapted to individual and group needs,
- ability to plan training activities and find appropriate training venues,
- ability to find creative ways to deliver training with tight budgets, and
- ability to adapt the overall training program to best serve jurisdiction goals

In 2015 OWM developed a NIST Instructor Training Program Instructor Competency Assessment and Feedback Instrument that can be used as a self-assessment tool by instructors and assist them in identifying and setting goals to strengthen and develop their skills as trainers. Included in this assessment tool is a broad list of competencies for trainers based on a model developed by the U.S. Department of Education (see http://www.pnet2000.org/CM/content_files/70.pdf for details). For the purposes of serving as a NIST OWM trainer, only a subset of these competencies may be necessary, although some trainers participating in the NIST Trainer Program may be required to master more of them to meet broader training responsibilities within their own agencies. See past Committee reports for additional background.

As previously reported, NIST OWM is authorized by IACET to issue "Continuing Education Units" for certain training seminars and, as part of this authorization, there are certain provisions that an instructor must follow to meet these requirements. NIST Certificates and the accompanying CEUs can only be issued if these criteria are met; this includes ensuring that the material is presented consistent with the learning objectives and interpretations specified by NIST OWM and in the same time frame. OWM staff trainers have completed IACET training courses and are familiar with the procedures that OWM has implemented to ensure compliance with IACET-related requirements for NIST training courses. External trainers in the NIST Trainer Program must also understand these provisions. OWM has presented several short webinars to help its external trainers obtain the necessary training and will continue to seek opportunities to provide this training to those who have not yet completed it.

At the 2016 Annual Meeting, Ms. Butcher reported that NIST is making an additional \$100,000 grant to NCWM to support travel and training events for the NIST Trainer program. OWM continues to work on formalizing the NIST Trainer Program. At the 2017 Annual Meeting, Ms. Butcher updated the Committee on progress on "Instructor

Improvement” in the NIST Trainer Program. She noted that OWM is continuing to work on the infrastructure of the program, including documenting:

- Procedures for Selection, Evaluation, and Feedback to Instructors
- Instrument - Instructor Competency Assessment and Feedback – Overall
 - Based on US Dept of Education model for overall development
- Instrument - Instructor Competency Assessment - specific courses
- Criteria for Developing Participants in NIST Instructor Training Program and Use of the NIST-NCWM Training Grant
- Instructor Agreement

She noted that OWM information shared this information with NCWM Board of Directors at their meeting May 2017 as a follow-up to discussions and a request at the Board’s January 2017 Meeting. She noted that OWM is beginning to implement these tools with its external trainers and OWM has made continual adjustments to the assessment documents based on experience. For example, the instrument which is used to provide an overall assessment of a trainer’s professional competencies can be used to help a trainer identify personal goals for improving their competencies as a trainer, including both those that NIST would require of its trainers and those that might be required of them in their own jurisdiction. However, the instrument proved overly complex for an individual learning event. Consequently, Georgia Harris (OWM) developed a scaled down version of the instrument that was tailored more toward individual learning events, but that still linked back to the overall competencies. This instrument has been used in at least two classes and a revised version will be used in courses coming up in fall 2017.

Ms. Butcher reported that 10 of OWM’s 44 training sessions in 2016 included non-NIST instructors assisting in the NIST OWM classes. Travel for external trainers serving as co-instructors in these classes is funded using travel from a grant provided by NIST to NCWM. She expressed appreciation to NCWM for its continued assistance in administering the grant and helping make the process of getting the trainers to these courses as smooth as possible.

Ms. Butcher also reported that several instructor training webinars had been offered to external trainers, including webinars on Blooms Taxonomy; learning objectives; and the ADDIE model. She noted that one of NIST’s external trainers audited a “Train-the-Trainer” course offered by the American Management Association and OWM is considering if this might be a course that could be used by prospective NIST instructors in their own personal development as trainers. Ms. Butcher noted that OWM is continuing to involve external trainers in its training efforts and has been increasing their responsibilities in these seminars. She emphasized the significant impact that the external trainers have had on the success of the NIST courses and expressed appreciation for the trainers who give of their time and expertise and the directors who allow the trainers time away to assist with these courses.

Regional Association Comments:

The WWMA supports the ongoing efforts of the NIST/OWM Train the Trainer Program.

The CWMA reported that members expressed the desire for NIST to complete certification of some of the Train-the-Trainer participants so that they would be available to independently lead more trainings in more settings. Comments were also heard that jurisdictions would like multiple routes to meet NIST OWM advanced course prerequisites. Examples would be equivalent training from other trainers or training organizations, or competency tests.

SWMA Report
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<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>The Chairman received no comments on this item.</p>

EDU-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 Board of Directors asks the PDC to review and prioritize possible presentation topics and to submit those to the NCWM Chairman. The Chairman will coordinate with NCWM staff to secure presenters.

The following is a list of technical presentations made at the NCWM since 2009. Presentations given since 2010 are available at www.ncwm.net/meetings/annual/archive.

- Planning and Coordinating a National Market Place Survey (Ms. Rachelle Miller, WI 2017);
- The Life Cycle of Petroleum from Well to Retail (Mr. Prentiss Searles, API 2017);
- The United States Mint at Denver – Gold, Coins and Embezzlement (Mr. Thomas Fesing, 2016)
- Understanding Transportation Network Systems (Ms. Andrea Ambrose Lobato, Lyft and Mr. Bob O’ Leary, Uber 2016)
- Regulatory Consideration for Legalized Marijuana (Ms. Julie Quinn, MN and Mr. Nick Brechun, CO 2016)
- Motor Oil Quality Violations (Mr. Tom Glenn, Petroleum Quality Institute of America, 2014);
- Making Sense of Electronic Receipts (Mr. Justin Hotard, Vice President and General Manager, NCR Corporation, 2014);
- LNG & CNG Motor Fuel – A Technical Briefing from Industry (Mr. Doug Horne, President CVEF, Mr. Zack Wester, Blu, Mr. Jeff Clarke, NGVA, 2014);
- Taximeter Technology Advancements (Mr. Matt Daus, International Association of Transportation Regulators, 2013);
- Advanced Vehicles and Fuel Quality (Mr. John M Cabaniss, Jr., Association of Global Automakers, 2013);
- Economic Justification and Demonstrating Value of Weights and Measures (Mr. Tim Chesser, Arkansas Bureau of Standards, 2012);
- Conducting Effective Marketplace Surveys and Investigations (Ms. Judy Cardin, Wisconsin Weights and Measures, 2012);
- Public Relations and Customer Service as Regulators (Mr. Doug Deiman, Alaska Division of Measurement Standards/ CVE, 2012);
- An Overview of Unit Pricing in the United States (Mr. David Sefcik, NIST OWM, 2011);
- Grocery Unit Pricing in Australia (Mr. Ian Jarratt, Queensland Consumers Association, 2011);
- Grocery Unit Pricing in Canada (Mr. Ian Jarratt, Queensland Consumers Association, 2011);
- The U.S. Hydrogen Measuring System: The Turning Point? (Ms. Kristin Macey, California Division of Measurement Standards, 2011);
- Corrosion in Ultra Low Sulfur Diesel Underground Storage Systems (Mr. Prentiss Searles and Ms. Lorri Gainawi, American Petroleum Institute, 2010);
- Risk-Based Inspection Schemes (Mr. Henry Oppermann, Weights and Measures Consulting, LLC, 2010);

- Diesel Exhaust Fluid (DEF) (Mr. Gordon Johnson, Gilbarco, Inc., and Mr. Randy Moses, Wayne, 2009);
- Fuel Volatility and Ethanol Blending (Mr. Jim McGetrick, BP Products, 2009);
- Investigative Techniques (Mr. Michael Cleary, Retired, 2009);

During open hearings at the 2016 Interim Meeting, the Committee heard a suggestion from Ms. Kristin Macey (CA DMS) for a training session on transportation network systems. Mr. Doug Musick (KS) commented that this type of technology is showing up in applications other than just passenger transportation and suggested that training in GPS-based measuring systems in general would be beneficial. He noted that his jurisdiction is encountering a large number of GPS-based measuring systems being used in assessing charges for the sale and application of crop fertilizers and other treatments and he noted that the monetary impact is significant.

The Committee also heard comments from Mr. Jim Pettinato (FMC), Chairman of the NTEP Software Sector, who noted that training on issues related to inspection of software-based systems may be beneficial to weights and measures jurisdictions. He noted that, with the current progress of proposals through the NCWM process, the Sector is wrapping up its initial work and suggested that the Sector and its members might be able to assist in training on legal metrology issues relative to software-based weighing and measuring systems. Ms. Julie Quinn (MN) commented that this assistance might be particularly helpful in assisting weights and measures jurisdictions in understanding and educating inspectors and service personnel on audit trails used in these devices, and she noted that audit trail training is the most frequently requested training topic in her jurisdiction.

The Committee appreciates the input and ideas that it has received regarding suggested training topics. Based on the comments received during its open hearings, comments from the fall 2015 regional association meetings, past suggestions, and discussions during its Interim Meeting work sessions, the Committee proposes that the BOD consider offering technical presentations on the following topics:

- Verifying Compliance of Software-Controlled Weighing and Measuring Systems
 - This might include the verification of software versions, security, and other metrologically significant issues
- Understanding Transportation Network Systems
- GPS-Based Measuring Systems Used in Applications Other Than Passenger Transport
- Vehicle-Tank Metering Systems “Flush Systems”
- Credit/Debit Card Skimmers

The Committee also discussed the audience that is typically present at NCWM Annual and Interim Meetings, noting that inspectors and service personnel are not always able to participate in these meetings. The Committee believes it would be beneficial not only to offer training on key issues such as those listed above at the NCWM meetings, but to have the training made available at regional and state weights and measures association meetings where more inspectors and service personnel would be likely to attend. Some aspects of the training might need to be tailored more toward field inspection than weights and measures administration, but much of the content should be the same. The Committee would like to collaborate with regional weights and measures associations to suggest that similar training be provided at the regional level.

At the 2016 NCWM Annual Meeting, the Committee suggested that technical training on safety programs be included at Regional and National Meetings, including an update provided by Julie Quinn at the 2016 Annual Meeting. The Committee received no additional suggestions or comments regarding proposed training topics.

Regional Association Comments:

The WWMA PDC recommends continued support for ongoing training opportunities.

The CWMA recommended two topics for the CWMA annual meeting which might also be of interest to the NCWM:

1. A panel on blender pumps relating to flex fuel and biodiesel blending. Topics to include dispenser labeling, blend ratios, proper sampling, flow rates and other mechanical issues affecting accuracy.
2. Protecting employees from active shooters and interpersonal violence in remote locations.

The SWMA received comment from Russ Lewis, representing API, who offered to provide A to Z distribution awareness training on petroleum fuels to all regions. This offer was received well by the committee and members.

NEWMA received a suggestion for “Software Systems” training. At a minimum, the regulator was interested in a basic training for audit trails since there is advancing and changing technologies.

SWMA Report
<p>Regional recommendation to NCWM on item status:</p> <p> <input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input checked="" type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM </p>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Don Onwiler, NCWM Executive Director – Commented that we may want to receive from the group not only topics for conference training, but industry type tours like the one of the Magellan Terminal at the NCWM annual conference in Tulsa, OK. The Chairman received no other comments on this item.</p>

PMT – PROGRAM MANAGEMENT

PMT-1 I Safety Awareness

One of the goals of the PDC is to educate jurisdictions on safety issues and to provide resources to help them implement effective safety and health management programs. The Committee intends to use the safety page on the NCWM website (<https://www.ncwm.net/resource/safety>) as a place for states to share information and resources to help them address each of the major steps in creating and maintaining an effective safety program.

One such resource is the recently published draft of OSHA’s Safety and Health Management Program Guidelines (https://www.osha.gov/shpmguidelines/SHPM_guidelines.pdf). This 44-page document is written in plain language and is aimed at helping small organizations establish, maintain, and improve safety and health management programs. It provides guidance on the seven core elements of safety and health program management:

- Management Leadership
- Worker Participation
- Hazard Identification and Assessment
- Hazard Prevention and Control
- Education and Training
- Program Evaluation and Improvement
- Coordination and Communication on Multiemployer Worksites

Ms. Julie Quinn (MN), PDC Safety Liaison, reported on the results of the 2017 safety survey, which covers incidents occurring in 2016. The top three causes of lost or restricted time for the second year in a row were:

- **Lifting/twisting/bending 54.5% - 6 incidents**
 - Soft tissue injuries (3), Back or neck injuries (3)
 - Lost days – 60+ days (2), 21-60 days (2), 0-5 days (2)
 - Restricted days – 60+ days (1), 16-20 days (1), 6-10 days (1), 0-5 days (3)
- **Slips/trips/falls 18.2% - 2 incidents**
 - Soft tissue injuries (1), broken bones (1)
 - Lost days – 21-60 days (1), 6-10 (1)
 - Restricted days – 16 – 20 days (1), 6-10 days (1)
- **Vehicle accidents 18.2%, 2 incidents**
 - Soft tissue injuries (2)
 - Lost days 0-5 (2)
 - Restricted days – none

Ms. Quinn also reported the NCWM Safety Task Group had its inaugural meeting on Sunday, July 16th. Their first meeting focused on the economic impact of safety. At this meeting, the Task Group decided to add one more question to the 2018 survey to track those “near-miss” incidents which had property damage costs or other expenses associated with them.

The Task Group also began developing a spreadsheet which will help agencies track information to be included in the survey. This includes information such as the cost of incidents resulting in lost and restricted days; near-miss incidents, which do not result in lost or restricted time beyond the initial day of injury but result in property damage, medical expenses, or other costs; and other information.

The Committee expresses appreciation to the members of the Safety Task Group for their willingness to volunteer for this important work.

- Julie Quinn (MN), Chair
- Jason Flint (NJ)
- Georgia Harris (NIST OWM)
- Elizabeth Koncki (MD)
- Matt Maiten (Santa Barbara County, CA)
- Brenda Sharkey (SD)
- Mike Sikula (NY)
- Tisha Arriaga (Marathon Petroleum)
- Bill Callaway (Crompco)
- Remy Cano (Northwest Tank and Environmental Services, Inc.)
- Joe Grell (Rice Lake Weighing Systems, Inc.)
- Brad Fryburger (Rinstrum, Inc.)
- Robert LaGasse (Mulch and Soil Council)
- John Lawn (Rinstrum, Inc.)

Other potential items for future inclusion on the safety page include links to resources on:

- OSHA consultation services
- Job hazard analysis
- Field level hazard analysis
- Hierarchies of hazard control
- Safety training resources

Each safety program is unique to its organization. Each agency is responsible for designing, implementing, and maintaining its own safety program. Resources provided on the web page are intended only to assist agencies as they develop and improve their own safety programs. Safety is not only first; it is first, last, and always. The work of maintaining and improving a safety program never ends.

Currently the NCWM safety page houses the list of regional safety liaisons and an archive of past safety articles.

Regional Safety Liaisons:

Central Weights and Measures Association (CWMA):

Ms. Julie Quinn, Minnesota Weights and Measures Division

Northeastern Weights and Measures Association (NEWMA):

Mr. Michael Sikula, New York Bureau of Weights and Measures

Southern Weights and Measures Association (SWMA):

Ms. Elizabeth Koncki, Maryland Department of Agriculture

Western Weights and Measures Association (WWMA):

Mr. Brett Gurney, Utah Department of Agriculture and Food

Regional Association Comments:

The WWMA PDC continues to support the importance of safety and the work being done by NCWM.

The CWMA received comment that people would like to hear from an OSHA consultant at the NCWM meeting. The committee encouraged all states to participate in the next safety survey. Private companies are also urged to participate. Government agencies will be invited to participate via the Directors list service or private companies should contact Don Onwiler at the NCWM so they can be included in the email invitation.

NEWMA expressed appreciation to Julie Quinn (MN) for the fine job she did compiling the safety information she received, and the report she presented at the 2016 NCWM Annual Meeting. Individuals from NEWMA that were in attendance, agreed that Julie’s presentation was very well done and contained valuable information. It was stated that it was disappointing that the PDC agenda review took place so late in the day and there were so few individuals in attendance. Because of this situation, NEWMA heard several comments in favor of changing the order of the Standing Committee’s agenda reviews so committees have equal exposure. Jimmy Cassidy, NCWM Chair Elect, was in attendance and supported the concept of changing the order of the Committee’s agenda reviews.

SWMA Report
<p>Regional recommendation to NCWM on item status:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input checked="" type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>The Chairman received no comments on this item.</p>

Mr. Gene Robertson, Mississippi | Committee Chair
Mr. Robert McGee, South Carolina | Member
Mr. Stuart Strnad, Texas | Member
Mr. Chester Watson, Kentucky | Member
Mr. Hunter Hairr, North Carolina | Member

Professional Development Committee