Professional Development Committee (PDC) 2015 Interim Report

Cheryl Ayer, Committee Chair New Hampshire

400 INTRODUCTION

The PDC (hereinafter referred to as the "Committee") submits this Committee Interim Report for consideration by National Conference on Weights and Measures (NCWM). This report contains the items discussed and actions proposed by the Committee during its Interim Meeting in Daytona Beach, FL, January 18 – 21, 2015. The report will address the following items in Table A during the Annual Meeting. Table A identifies the agenda items by reference key, title of item, page number and the appendices by appendix designations. The acronyms for organizations and technical terms used throughout the agenda are identified in Table B. The first three digits of an item's reference key are assigned from the Subject Series List. The status of each item contained in the report is designated as one of the following: (D) Developing Item: the Committee determined the item has merit; however, the item was returned to the submitter or other designated party for further development before any action can be taken at the national level; (I) Informational Item: the item is under consideration by the Committee but not proposed for Voting; (V) Voting Item: the Committee is making recommendations requiring a vote by the active members of NCWM; (W) Withdrawn Item: the item has been removed from consideration by the Committee.

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

Committees may change the status designation of agenda items (Developing, Informational, Voting, and Withdrawn) up until the report is adopted, except that items which are marked Developing, Informational or Withdrawn cannot be changed to Voting Status.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

An "Item Under Consideration" is a statement of proposal and not necessarily a recommendation of the Committee. Suggested revisions are shown in **bold face print** by **striking out** information to be deleted and **underlining** information to be added. Requirements that are proposed to be nonretroactive are printed in **bold faced italics**. Additional letters, presentations and data may have been part of the Committee's consideration. Please refer to www.ncwm.net/meetings/annual/publication-16 to review these documents.

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

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

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Glossary of Acronyms and Terms

Table B

Acronym	Term	Acronym	Term
ADDIE	Analysis, Design, Development, Implementation, and Evaluation	NEWMA	Northeastern Weights and Measures Association
ANSI	American Nation al 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 Association
		WWMA	Western Weights and Measures Association

Details of All Items

(In order by Reference Key)

410 EDUCATION

410-1 I Professional Certification Program

Professional certifications are offered in many industries as a means of demonstrating competence in a particular field of expertise. Certification may be a means of qualifying an individual for employment or higher pay grade within a profession. The NCWM Professional Certification Program provides confidence that an individual has a strong understanding of U.S weights and measures standards as adopted by NCWM and published in NIST Handbooks, 44, 130, and 133.

Professional certification is available to NCWM members and non-members in the private sector and in government positions. Please note that the person taking the test must be an NCWM member in order to receive the exams for free.

The Professional Certification Program began in the fall of 2010 with the successful posting of the Retail Motor Fuel Devices exam. Since then, a Small Capacity Scales exam and a Basic Package Checking exam have been available. Three new exams are very near completion. The Vehicle Tank Meter exam has been delivered to NCWM headquarters and will be released soon after the Interim Meeting. Medium and Large Capacity Scales exams will soon follow. We want to thank the subject matter experts who have invested their time in the successful completion of these exams. Their names are listed in the table below.

Vehicle Tank Meters	Medium Capacity Scales Large Capacity Scales
Conrad Brown, ME	Mark Buccelli, MN, Ret
Charles Carroll, MA	Jim Daggon, Rice lake Weighing
Gabe Frezzo, Industry, PA	Dennis Fox, Central Illinois Scale
Lewis Hutfles, KS	Nathan Gardner, OR
Paul Jordan, CA	Joe Grell, Rice Lake Weighing
Antony Joseph, NY	Roger Macey, CA, Ret
John Kirk, VA	Matthew Maiten, Santa Barbara, CA
Gary Kneissel, MN	Mike Mann, WA
Mike Mann, WA	Albie Michelson, WY, Ret
Albie Michelson, WY, Ret	John Pasko, WI
Ron Pierce, PA	Kevin Pfeiffer, VA
Gary Sassaman, Liquid Meas & Controls, PA	Doug Rudy, PA
Scott Simmons, CO	Mike Smith, NY
Mike Smith, NY	Richard Suiter, NE/NIST, Ret
Michael Swimm, ME	Courtney Ward, Quality Scales
Jared Williams, WI	
Ray Woolfolk, AK	
Jane Zulkiewicz, Barnstable, MA	

As we move forward, subject matter experts will be recruited for LPG and Price Verification. An individual who is proficient, or knows of someone who is proficient in these disciplines, is encouraged to speak with Ross Andersen or a member of the PCD. The exams to follow will be Mass Flow Meters, Packaging and Labeling, and Precision Scales. Again, the successful creation of these exams is dependent on willing volunteers.

Status of Current Tests

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 (three for small scales, two for package checking, and one for retail motor fuel). The balance of the certificates has been issued to regulators within 30 different states.

Number of Certificates NCWM has issue by 2014 Fiscal Year End (September 30th)

	FY10-11	FY11-12	FY12-13	FY13-14
Count in Year	44	94	104	68
Cumulative	44	138	242	310

States with largest number of Certificates

State	Certificates	State	Certificates
Missouri	56	Maine	8
Minnesota	52	Massachusetts	8
Maryland	47	New York	8
Nebraska	26	Ohio	8
Washington	24	Virginia	8
California	21	Idaho	6
Mississippi	15	Wisconsin	6
Connecticut	14	Wyoming	6
Arkansas	11	Private Industry	6

The committee continues to hear from states that are interested in requiring professional certification for their registered service agents. Some states have expressed concern that service agents would not be able to pass the professional certification exams. The committee is challenged with either dumbing down the test for service agents or stepping up to prepare the service agents to successfully pass the exams. In particular, can the states expect private service agencies to provide training to prepare their workers to pass the NCWM certification exams? What actions will the states with registered service programs have to undertake to ensure that these service agents are as qualified as state-trained officials to evaluate equipment for legal compliance?

The Committee is continually working to improve the exams and the exam experience. Our goal is to make sure the exams stay meaningful and current as handbook changes are made, and includes an annual review of the current exams by the Certification Coordinator. The PDC will add a few questions at the beginning of each professional certification exam to help identify information that would assist the committee to improve the exams. For example, the level of experience, whether they are a regulatory official or a service agent, and so forth.

The PDC will also implement an exit questionnaire to receive input from the individual experiences of those taking the exams (e.g., How did the candidate react to the content of the exam, was it challenging, was it too easy, or did they feel the exam was fair?).

NCWM Director, Don Onwiler, challenged the committee to look toward the future of the program and explore the following areas:

Accreditation – This would require meeting established standards as a certifying body.

Proctoring Exams – Should candidates be required to take exams in a state's weights and measures facility or in a private proctoring service?

Examination Protocol – Currently, candidates register for the exam and are permitted to make up to two attempts to pass the exam. If the candidate fails both attempts they may reregister and get an additional two attempts. (1) Do we continue to allow two attempts for each registration fee? (2) Do we implement a mandatory waiting period for candidates who need to retake the exam after two failed attempts?

Intermediate Exams – Jurisdictions have expressed interest in using the NCWM exams in their registered service agent programs. Would it be beneficial to have exams that can serve as stepping stones toward reaching professional certification? The Committee will consider creating three exams for (1) basic measurement and use of Handbook 44, (2) basic liquid measuring, and (3) basic weighing.

During open hearings, the Committee heard from multiple jurisdictions regarding how they have used the professional certification exams to help develop their inspectors. The committee heard from four of the top five states who use the program including: Maryland, Minnesota, Missouri, and Washington. Jurisdictions shared various strategies they use:

- Promoting professional certification at all staffing levels
- Incorporating certification exams into job classification requirements
- Using collective success on the certification exams as a measure of the effectiveness of the jurisdiction's training program
- Retesting to maintain their proficiency
- Identify and implement additional training

Mr. Ron Hayes (MO) commented that in addition to preparing employees with technical training, they also coach their employees on successful test taking strategies. For example, avoiding getting caught up on one question and watching the time limit. Mr. Hayes also provides an environment to his employees which is free from interruption or outside influences.

The PDC will work with NCWM Headquarters to provide hyperlinks in the exam announcement to the EPOs, handbooks, supplemental courses, and study aids; including modules. This will provide quick access to individuals taking the exam as well as to the trainers. 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 Mrs. Tina Butcher, NIST OWM, at tbutcher@nist.gov.

Regional Associations Comments:

WWMA supports the continued development of the certification testing program and encourages more people to take the exams. WWMA strongly recommends NCWM devise a way to give individual participants feedback in those areas, i.e. General, Administration or Technical; that they scored the lowest in, while still maintaining the integrity of the Professional Certification Program.

NEWMA members recognize the importance of the certification exams in demonstrating knowledge and skills in utilizing the handbook, and enhancing the credibility of both weights and measures officials and registered service agents. At the 2014 NEWMA interim meeting, a document from the NCWM PDC was presented. The document addresses the goals of the certification program and asks if the professional certification exams are intended for every employee in reaching a professional stage. Also addressed was the program's usefulness in qualifying registered service agents. Several state directors spoke in favor of utilizing the certification program in evaluating employee progress.

At the 2014 CWMA Interim Meeting, Kansas, Minnesota, Iowa and Ohio reported that they check packages sold by volume on complaints. Missouri, Wisconsin, Nebraska and Michigan reported that they regularly check packages sold by volume using the gravimetric method. Missouri reported that they encounter short weight problems with milk, motor oil and anti-freeze. Missouri also reported that determining density for gravimetric testing has helped them find product identity problems, specifically methanol/water blends being mislabeled as ethylene glycol anti-freeze. The CWMA therefore supports keeping testing packages labeled by volume in the basic package checking test

Missouri also noted that Handbook 133 needs to be updated to allow handheld densitometers to be used to determine density.

SWMA heard comments from Mr. Stratt Pinagel, Wal-Mart, acknowledging the importance of these exams in promoting uniformity in inspections. Mr. Pinagel asked how many states are requiring successful completion of these exams as a condition for employment of inspectors. Dr. Matt Curran asked whether there were any states who are working toward implementing this in the future. Several states indicated they already require this and several, including Florida, indicate an active interest in pursuing this. Mr. Tim Chesser (Arkansas) indicated that although Arkansas would like to implement a requirement for inspectors to take these exams, Arkansas, like some other states, have personnel regulations that may prevent them from making this a requirement at the present time. He noted, however, that Arkansas is considering requiring this for service companies. Mr. Lou Straub, Fairbanks, noted that the "passing" rate for some of the exams is rather low and commented that, if weights and measures officials are having difficulty passing the exams, this may pose a problem for service personnel who are less familiar with basic weights and measures requirements. Mr. Straub also suggested distinct tests for weights and measures officials and service personnel. Mr. Chesser pointed out that in Arkansas, service personnel are performing many of the same inspection and testing functions as field officials and, therefore, it is important that they have a full understanding of the requirements. Mr. Dale Saunders, VA, PDC Chairman, commented that, with regard to the exam scores, successful completion of these exams indicate a level of professional proficiency and it is important that inspectors be prepared and undergo adequate training prior to taking these exams, After hearing Mr. Saunders' comments, Mr. Jerry Butler (NC), asked questions about how jurisdictions go about this preparation. Mr. Saunders noted that this preparation is the basic training required of any inspector along with increased emphasis on studying and comprehending the NIST Handbook 44 requirements.

410-2 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.

At the 2014 annual meeting, the committee announced that the Model Field Training Program was available for use. Mr. Michael Cleary (CA, Ret.) has received some positive feedback from regulators that have started using the Model Field Training Guide. We hope this guide will encourage jurisdictions that do not have an evaluation program in place to utilize this tool. As feedback has been received, minor changes have been made and the updated document can be found under the training section of the NCWM website through the Resources tab.

It is important to note that the combination of quality training and evaluation in a weights and measures program helps to ensure that jobs are done accurately and correctly. Again we thank Mr. Cleary, who chaired the subcommittee, and all the sub-committee members.

To date, Mr. Cleary has given instruction on the use of the program to the Western Weights and Measures Association and will continue to give presentations in each of the regions. 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 or a member of the Committee.

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. It includes how to select and maintain a standard, wetting the standard, normal and slow flow tests, leveling, reading the meniscus, draining a test measure, and the anti-drain test. The video is available in a 14 minute video segment or it may be viewed in individual test procedures. OWM will have a training video available on small capacity scales this year. OWM would like feedback on the training videos and input on training topics that jurisdictions would be interested in having available.

On the home page of the OWM website, an individual can access the RMFD training video from the Legal Metrology Devices link and by clicking on the Training Materials link. An individual can also access a NIST Handbook 44 Self-Study Course under this same link. The PDC would like to provide links to these valuable training materials from the NCWM website under the Resources link and then by following the Training tab.

Regional Associations Comments:

The WWMA supports the NCWM Model Weights and Measures Training Program and encourages weights and measures jurisdictions to implement it. WWMA conveys its gratitude to the NCWM work group that was headed by Mike Cleary, former Director of the California Division of Measurement Standards for developing the Model Weights and Measures Training Program. This program provides the tools for the administrator and trainer to ensure that new inspectors are competent in all of the required basic skills needed to perform the function of an entry level weights and measures official.

NEWMA believes that training and development is an important component to any weights and measures program.

SWMA heard comment from Mr. Jerry Buendel, WA, that Mr. Mike Cleary, retired CA, gave a very good presentation at the Western Weights and Measures Association meeting on the Training Manual and suggested that Mr. Cleary be invited to give this presentation at the SWMA. Mr. Dale Saunders noted that Mr. Cleary was originally scheduled to give this presentation at the SWMA, but a schedule conflict prevented him from attending. Mr. Saunders reminded the SWMA that the PDC publications, including the manual, are available for viewing on the NCWM web site.

410-3 I Instructor Improvement

During its Open Hearings at the 2015 Interim Meeting, the Committee heard an update from Mrs. Tina Butcher (NIST OWM) regarding OWM's continuing efforts to develop instructors in the area of legal metrology. Mrs. Butcher noted that 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 training and, in some cases, those individuals are already training within their own jurisdictions or regions. Drawing from this pool of individuals, OWM hopes to develop trainers who can present schools on behalf of NIST, thus leveraging NIST resources, providing access to NIST training on a timetable that can meet jurisdictions' needs, and providing a way to more broadly share the valuable expertise these individuals possess.

Mrs. Butcher reported that OWM has previously implemented training programs for trainers, but has lacked the resources to sustain the work. 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 training candidates, NIST has identified a group of people who are working with NIST to develop the knowledge, skills, and abilities to present specific technical schools on behalf of NIST. OWM is currently working to formalize the criteria for this program, but examples of essential areas for development of a trainer include the following:

- Technical knowledge (e.g., legal metrology expertise)
- Communication skills (such as writing, presentation, interpersonal skills, handling difficult classroom situations)
- Consistency with NIST materials (e.g., presenting material consistent with other NIST instructors)
- Knowledge and understanding of IACET requirements

In developing trainers in these areas, candidates not only participate in "train the trainer" seminars, but also work with NIST staff to participate in technical training schools, assist in teaching seminars, and develop materials for use in NIST training schools. With regard to IACET requirements, Mrs. Butcher noted that NIST is authorized by IACET to issue "Continuing Education Units," and as part of this authorization, there are certain tasks and provisions that an instructor must meet in order that these requirements are met. NIST Certificates and the accompanying CEUs can only be issued if these criteria are met. Additionally, OWM believes that ongoing interaction and refreshers for all of its trainers, including NIST staff, are necessary to maintain consistency and credibility of its training schools. OWM plans to formalize the structure of its Trainer Program by the end of this year.

In the meantime, Mrs. Butcher noted that 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. Mrs. Butcher expressed appreciation to those trainers and their directors who have supported their participation and continued development as NIST trainers. Many instructors, including NIST staff, would agree that serving as an instructor for a training school is a learning opportunity for the instructor as well as the student. Thus, OWM believes that not only will this program provide a supply of qualified instructors, but participation in the program will provide professional development for the instructors, which in turn will benefit their jurisdictions and regions.

A list of all people who have attended a "Train the Trainer" class has been posted on the NCWM website, whether or not they have worked with NIST trainers or attended NIST technical training schools. OWM has not yet certified anyone (external to NIST) as a "NIST Trainer," but looks forward to doing so once the structure of the Trainer Program is finalized and candidates have satisfied all requirements. At that point, a list of "NIST Trainers" will be posted along with the courses they are authorized to teach on behalf of OWM, and this list will be periodically updated as new trainers and technical areas are authorized.

Ms. Kristin Macey (CA DFA) asked if NIST is continuing to accept applications in the NIST trainer program. Ms. Carol Hockert, Chief, OWM, noted that NIST expects its list of trainers to continue to evolve since there will undoubtedly be attrition in the list due to retirement, job changes, and other situations. Additionally, not all candidates can provide training in all technical areas, so NIST may need to recruit candidates to fill the gaps that exist for instructors in specific technical areas as the need arises. NIST does not have the resources to develop and sustain the development of all of the trainers it invites to participate in the NIST trainer program or other training activities; however, even if a candidate is not designated to present on behalf of NIST, they and their jurisdictions can benefit from the experience and the candidate can still provide valuable training in their jurisdiction and region. Thus, new candidates are welcome as resources permit, with the understanding that not all of them may ultimately be developed as NIST trainers.

Mrs. Butcher also provided an update on some other areas designed to make NIST training more effective and efficient. She noted that training schools often include students with widely differing experience levels; a 30-year veteran inspector or service person may be in the same class with a student who has been in the job for two weeks.

This poses a challenge for instructors who feel pressured to teach at multiple levels and student experiences ranging from being bored to feeling overwhelmed. In an effort to narrow that gap, OWM's Devices Program has begun requiring students in device-related training classes to complete a NIST self-study course on NIST Handbook 44 (which can be downloaded from OWM's website) prior to attending NIST device classes. NCWM has graciously agreed to offer an exam for this self-study course through the NCWM Certification Program system; NIST has provided an exam to NCWM who is now awaiting feedback from NIST on a beta version of the online exam. As an additional measure, NIST has contracted with Henry Oppermann (W&M Consulting) who has developed a Basic Measuring Course and presented it to NIST staff. NIST plans to offer this course as a self-study course and may require it as a prerequisite to participating in any NIST school on measuring devices. It is hoped that this course will further narrow the gap referenced above; will eliminate redundancies among the various NIST measuring device schools; and will also provide instructors with additional time during classes to include more hands-on activities and to go more in depth on the topic for its measuring schools. OWM plans to develop a similar course for weighing devices.

The Committee heard a number of positive comments regarding the NIST Trainer Program. Mr. Jerry Buendel (WA) and Mr. Brett Gurney (UT) reported that they collaborated to host training schools on retail motor-fuel dispensers and small capacity scales using trainers who have participated in some of the NIST trainer schools. They reported that these trainers did an excellent job and the schools were well received by participants. The Committee also heard from Ms. Fran Elson-Houston (OH) who reported that one of her staff members has participated in this program and she has received many positive comments regarding improvements in this staff member's ability as a trainer.

Regional Associations Comments:

WWMA commends Carol Hockert and her staff at NIST OWM for offering such a beneficial course to state and local weights and measures jurisdictions. The list of participants who have completed the Train-the-Trainer course is available on the NCWM website. The WWMA encourages all weights and measures jurisdictions to take advantage of this valuable resource.

NEWMA continues to support NIST OWM in their efforts to train trainers that are well trained in adult learning, as well as in technical material.

At the 2014 CWMA Interim Meeting, Ohio noted that they have received many compliments on improved trainer confidence after one of their staff members began NIST's train-the-trainer program.

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 Board of Directors asks the PDC to review and prioritize possible presentations and to submit those to the NCWM Chairman. The Chairman will coordinate with NCWM staff to secure presenters and schedule the sessions.

To date, the Committee has received suggestions for the following topics:

- Succession Planning;
- Small Volume Provers (including operation, use, and interpretation of the data);
- Job Safety:
- CNG;
- Making Sense of Electronic Receipts and Electronics Record Laws;
- Training the Trainer in Adult Learning Techniques;
- Ethics for Weights & Measures Officials;
- Data Privacy Issues Faced by Weights & Measures Officials;
- Guidelines for Supplemental Declarations (recommended by PALS);

- Alternative Fuels Issues (Fuel Volatility, Ethanol Blending, and Biodiesel Blend);
- Ergonomics (including Proper Lifting Techniques, Back and Stress Techniques, and Office Ergonomics);
- Public Relations (specifically dealing with aggressive/angry people) (recommended by the SWMA);
- General Safety Issues (recommended by the WWMA);
- Defensive Driving (recommended by the WWMA);
- Administrative Civil Penalty Process (recommended by the WWMA);
- Price Verification (recommended by the WWMA);
- Customer Service (recommended by the WWMA);
- Moisture Loss;
- Documenting Investigations for Court Proceedings;
- Honing Presentation Skills;
- Emerging Issues;
- Implementing New RMFD Price Posting and Computing Capability Revisions (recommended by the WWMA);
- Fundamentals of the National Type Evaluation Program (recommended by the WWMA);
- Electric Vehicles: Commercial Devices, Method of Sale, Advertising and Labeling (recommended by the WWMA);
- Understanding the International Weights and Measures Standards Development System (recommended by the WWMA); and
- Crane Operation and Safety (recommended by the NEWMA).

Of these topics, the PDC recommends the following in order of priority: 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.

The following is a list of recent presentations. Presentations since 2010 are available at www.ncwm.net/meetings/annual/archive:

- 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 Grainawi, 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);
- Automatic Temperature Compensation (ATC) Field Test Procedures (Mr. Don Onwiler, Chair ATC Steering Committee, 2008);

- Elements of an Effective Safety and Health Program (Mr. Dan Whipple, OHST Vermont Department of Labor, 2008);
- Analyzing Temperature Compensation Data (Mr. Henry Oppermann, NIST OWM, and Mr. Steven Malone, Nebraska Division of Weights and Measures, 2007);
- The Great Temperature Compensation Debate (Mr. Ross Andersen, New York Bureau of Weights and Measures, 2007);
- NIST Handbook 44 Scale Code Tare Changes (Mr. Steve Cook, NIST OWM, XXXX DATE).

Regional Associations Comments:

WWMA recommends adding the following topic to the conference training list: Small volume provers operation use and interpretation of the data.

At the SWMA Annual Meeting, Mr. Dale Saunders, PDC Chairman, indicated that the Committee is looking for input from the SWMA on training topics of interest. He asked for people to provide comments to the SWMA PDC. He also indicated he is considering sending out a brief survey to SWMA members on possible topics to forward to the NCWM PDC.

NEWMA recommends training on:

- "Job Safety" (Recommendations for protecting employees and minimizing risks.)
- "CNG"

420 PROGRAM MANAGEMENT

420-1 I Safety Awareness

One of the goals of the PDC for 2015 is to make a concerted effort to address and educate jurisdictions on safety awareness. It is important for us to open up dialog with the regions on safety awareness and know how to mitigate or eliminate safety issues. Committee member, Julie Quinn (MN), has spearheaded this effort. Ms. Quinn 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's presentation is shown in Appendix A of this report. Ms. Quinn proposed using this item on the Committee's agenda as a mechanism for sharing information on safety-related incidents within the inspection community. During Ms. Quinn's presentation, she noted that Minnesota is currently putting together a "Field Level Hazard Assessment" checklist to assist inspectors in reviewing potential risks at different field sites. She asked for jurisdictions or companies to share any such checklists they are currently using. Ms. Quinn also reported that Minnesota requested a review from their State OSHA Consultation Program on their weights and measures program. She noted that there was no cost for this assessment and that having the expertise of an industrial hygienist in reviewing and providing guidance on how to address gaps proved invaluable. Ms. Quinn also noted that use of the consultation program may provide a period of immunity (with some exceptions) from OSHA fines as long as the jurisdiction agrees to correct any findings identified during the consultation. She encourages jurisdictions to explore the availability of such evaluations within their own States.

The Committee is interested in feedback on the use of this 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 expressed their appreciation for the regional safety coordinators and for the safety related articles that are submitted for the NCWM Newsletter. The Committee looks forward to the regional safety coordinator's continued contributions.

Below is a list of the Regional Safety Liaisons. Regional Associations should keep the committee updated on current liaison assignments.

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):

Mr. Matthew Curran, Florida Department of Agriculture and Consumer Services

Western Weights and Measures Association (WWMA):

Mr. Brett Gurney, Utah Department of Agriculture and Food

The Committee has revised the schedule as follows for future issues. The Committee plans to notify the Regional Safety Liaisons as their assignment date approaches.

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

Email all articles to NCWM headquarters at info@ncwm.net.

The Committee would like to thank those persons who submitted safety-related articles for the NCWM Newsletter. In particular, the Committee recognizes the following contributors:

- Are You Protecting Your Back, Fingers, and Toes, 2014 Issue 1 (Brett Gurney, UT)
- Making Annual Safety Training Fun, 2014 Issue 2 (Julie Quinn, MN)
- Emergency Preparedness Gas Stations with Transfer Switches, 2014 Issue 3 (Mike Sikula, NY)
- Defensive Driving While Towing a Trailer, 2015 Issue 1 (Elizabeth Koncki, MD)

The Committee asks for suggestions for safety articles that people would like to see in future newsletters and/or safety issues that need to be addressed immediately. The PDC reminds regional associations to check the submission deadlines for their upcoming article assignments. Send completed articles to NCWM headquarters by the submission deadline.

Regional Associations Comments:

WWMA encourages weights and measures officials to submit safety reports and issues to their Regional Safety Liaison. The WWMA also commends Bret Gurney, Western Regional Safety Liaison, for his timely safety article submitted to the NCWM newsletter on Controlling the Risk of Solitary Workers.

At the 2014 CWMA Interim Meeting, Missouri reported an incident where a CNG test vessel became a rocket after springing a leak near the valve during gravimetric testing. Missouri also reported an incident where both the diesel and gasoline discharge hoses on their RMFD testing units caught fire because of a short in the pump which caused it to seek ground through the discharge hoses.

CWMA Safety Liaison Julie Quinn is going to take the incident list generated at the last two meetings and survey CWMA states on whether they have:

• Experienced the hazards identified on the lists (to get a sense of how common they are);

Have addressed these identified hazards through engineering solutions, personal protective equipment, policies, training or other methods to prevent future injuries incidents.

SWMA heard from Mr. Ken Ramsburg (MD) indicating that Mrs. Elizabeth Koncki (MD), is replacing Dr. Matt Curran (FL) as the SWMA's Regional Safety Liaison. The SWMA's contribution to the newsletter is due in January 2015. If members are interested in any specific safety-related topics, please contact Mrs. Koncki.

NEWMA recommends providing safety videos on the NCWM website. An example of a basic safety issue is correct lifting techniques to avoid injury. NEWMA members agree that safety measures increase inspector confidence and demonstrate that management is mindful of individual safety and wellbeing.

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The Body of Knowledge documents are available to all individuals whether they are members or not. Through the NCWM website the modules may be clicked on and followed through a hyperlink. Trainers are encouraged to use the modules and to frequently check the website since they are continuously being updated.

The administrative documents describing the Professional Certification Program are available to members only under the PDC tab.

The Field Training Program documents, on the other hand, are accessible to all individuals under the Resources tab which is located on the navigation bar of the NCWM website. Additional training documents and videos are also accessed under the Resources tab.

Regional Associations Comments:

WWMA commends NCWM for its work on improving the accessibility to publications on its webpage.

At the SWMA Annual Meeting, Mr. Dale Saunders, PDC Chair, reminded the SWMA that the PDC publications are available for viewing on the NCWM website and encourages members to access them.

Ms. Cheryl Ayer, New Hampshire | Committee Chair

Ms. Angela Godwin, Ventura County, California | Member

Mr. Stacy Carlsen, Marin County, California | Member

Ms. Julie Quinn, Minnesota | Member

Mr. Doug Killingsworth, Georgia | Member

Mr. Richard Shipman, Rice Lake Weighing Systems | Associate Membership Representative

Ms. Tina Butcher | NIST Liaison

Mr. Ross Andersen | Certification Coordinator

Professional Development Committee

Appendix A

Safety Awareness Presentation

We all share safety program requirements. Most of us don't have the funding for industrial hygienists. Can we pool our resources and experiences so we do not have to reinvent the wheel? We have been sharing incident reports in a sporadic way but can we start cooperating on the other aspects of our programs?

- Identify hazards
 - o Through incident reports
 - o Through OSHA consultation
 - o Through Hazard Assessments (Works well in facilities under your control)
 - o Through Field Level Hazard Assessments (Requires field staff to be trained)
 - Can anyone share their FLHA checklists?
- Analyze Hazards
 - o OSHA's Focus Four (responsible for 90% of all deaths and injuries)
 - Falls
 - Electrocution
 - Struck by
 - Crushes/Caught between
 - o Risk assessment grids
- Control hazards
 - o Eliminate
 - o Engineering solutions
 - o Personal protective Equipment
 - o Policies (Behavior Modification)
- Communicate hazards to Staff (Education)
 - Initial Training
 - ERTK
 - Driver Safety
 - Field Level Hazard Assessments
 - MSHA
 - Respiratory
 - Overhead cranes and hoist inspection
 - Fire extinguisher
 - o Annual Training
 - ERTK
 - MSHA
 - Respiratory

PDC 2015 Interim Report Appendix A – Safety Awareness Presentation