

## **CWMA Professional Development Committee (PDC) 2019 Interim Meeting Report**

Ms. Brenda Sharkey, Committee Chair  
South Dakota

### **INTRODUCTION**

- 1 The PDC (hereinafter referred to as “Committee”) submits its Report to the Central Weights and Measures Association
- 2 (CWMA). The Report consists of the CWMA Agenda (NCWM Carryover and NEW items) and this Addendum.
- 3 Page numbers in the tables below refer to pages in this Addendum. Suggested revisions to the handbook are shown
- 4 in **bold face print** by **striking out** information to be deleted and **underlining** information to be added. Requirements
- 5 that are proposed to be nonretroactive are printed in **bold-faced italics**.
- 6
- 7 Presented below is a list of agenda items considered by the CWMA and its recommendations to the NCWM
- 8 Specifications and Tolerances Committee.

**Subject Series List**

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

**Table A  
Table of Contents**

Reference Key	Title of Item	PDC Page
<b>EDU – EDUCATION</b> .....		<b>3</b>
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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

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**Details of All Items**  
*(In order by Reference Key)*

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1 **EDU – EDUCATION**

2 **EDU-1 I Professional Certification Program**

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

8 At the 2018 Annual Meeting, the Certification Coordinator reported on progress on the LPG Liquid Measuring exam.  
9 He announced that work was progressing with NIST OWM to implement TP-27, a product of the API, ASTM and  
10 Gas Processors Association. TP-27 provides an electronic algorithm for computing temperature corrections to liquid  
11 volume that supersedes ASTM Table 24. The work with OWM also corrects minor errors in another table (Table 2)  
12 used to calculate uncompensated (gross) errors. OWM used the new tables in training provided in June in Ohio, and  
13 they plan to make a broad distribution of the new tables shortly. States will not have to make procedural changes to  
14 calculations or forms; just substitute the new tables for the old ones, i.e. new Table 24E for Table 24 and new Table  
15 2 for old Table 2. The NCWM exam will use the new OWM tables and plans to publish them with the exam  
16 announcement so people can become familiar with them before taking the exam.

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

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

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

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

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

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

11 **Status of Current Tests**

12 The NCWM has issued 1,042 professional certificates from the inception of the Professional Certification Program to  
 13 September 30, 2018. Of the certificates issued, eleven have been issued to individuals in the private sector (three for  
 14 small scales, two for package checking, and one for retail motor-fuel dispensers). The balance of the certificates has  
 15 been issued to regulators. It is important to note that some of the early certificates have reached their 5-year expiration.  
 16 Those who earned certificates over five years ago will need to seek recertification. The Committee is working with  
 17 NCWM staff to alert certificate holders prior to expiration. Both the Committee and NCWM are hopeful this will help  
 18 facilitate with recertification. The NCWM Executive Director has advised the Committee he will work with staff to  
 19 begin notifying expiring certificates holders several months in advance. This would allow certificate holders time to  
 20 prepare before retaking the exams.

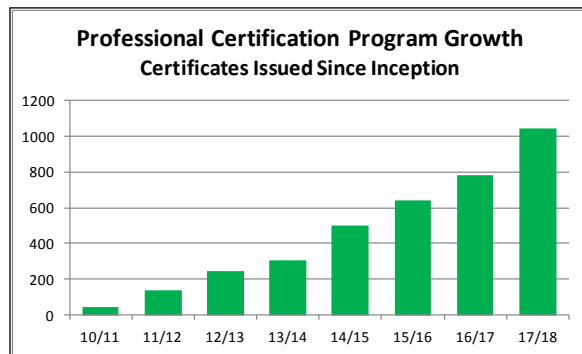
21 Number of Certificates NCWM has Issued as of the end of Fiscal Year 2017/18 (September 30, 2018)

	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	FY16-17	FY17-18
Exams Pass	44	94	105	62	198	140	142	257
Cumulative	44	138	243	305	503	643	785	1,042

22

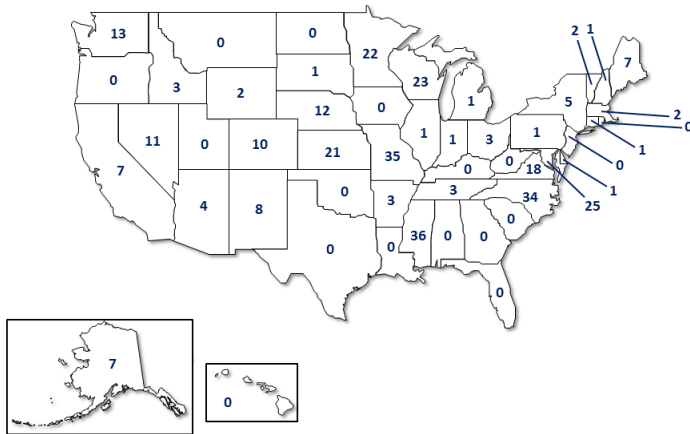
Certification (posted)	Certificates
RMFD (5/2010)	364
Small Scales (8/2012)	249
Package Checking (8/2012)	167
Medium-Capacity Scales (4/2015)	112
Large-Capacity Scales (4/2015)	74
Vehicle-Tank Meters (4/2015)	76

23



24 The following map includes the states with individuals holding an active certificate in one or more disciplines. Please  
 25 note that the eleven active certificates issued to private sector individuals are included in these figures, e.g. the three  
 26 certificates in Arkansas are private sector individuals. This data only includes certificates which have not expired as  
 27 of September 30, 2018.

**Distribution of Certified Professionals per State**  
Updated: September 2018



1  
 2 The list below shows those states with the highest utilization of the program. The table values include activity since  
 3 program inception and may include expired certificates. The Committee applauds these states and encourages  
 4 increased use of the certification program nationwide.

State	Certificates	State	Certificates
Minnesota	152	Maine	26
Missouri	143	New Mexico	23
Maryland	77	Nevada	22
Virginia	70	New York	19
Wisconsin	67	Colorado	15
Mississippi	53	Connecticut	15
North Carolina	50	Indiana	13
Washington	50	Ohio	13
California	41	Private	12
Kansas	40	Idaho	11
Alaska	35	Massachusetts	11
Nebraska	33		

5  
 6 At the 2019 Interim Meeting, it was announced by Gene Robertson, Committee Chair, that Ross Anderson would be  
 7 stepping down as the Certification Coordinator at the end of the annual meeting in July. Jerry Buendel WA-Retired  
 8 will take over the position. Jerry was contacted this past October to succeed Rose and has been working closely with  
 9 Ross and NCWM office to make it a smooth transition.

10 Ross Andersen, Certification Coordinator, reported that there were minor discrepancies between two databases that  
 11 contain the data on professional certifications. One database is maintained by the test site electronically based on  
 12 exams taken, and the other is maintained by NCWM staff manually. Shortly after the Interim Meeting the Coordinator  
 13 worked with NCWM staff to find the errors and correct them. Several entries on the test site were not actual exams  
 14 taken by candidates but rather by staff to evaluate the exam deployment. These have been removed. There were a  
 15 small number of data entry errors or missing entries in the manual NCWM database that were also corrected. The two  
 16 databases are now synchronized up to the end of fiscal year 2017/18. The data reported in the annual report and in the  
 17 charts above reflect the corrected figures. This synchronization will become a part of the annual program maintenance  
 18 in the future.

1 NCWM 2019 Annual Conference: Tim Chesser (AR) suggested the committee investigate ways to encourage/assist  
 2 states not yet providing proctors to do so. It was suggested by Jerry Buendel that alternate sources for proctoring, e.g.  
 3 commercial ‘learning centers’, could be utilized. Ken Ramsburg (MD) voiced support for looking into this approach.  
 4 Paul Floyd (LA) suggested that existing government testing facilities (e.g. civil service exams) could also provide  
 5 examples of ways to provide proctored exams. Jim Willis (NY) expounded on that thought, suggesting state  
 6 associations may be another resource.

7 Don Onwiler (NCWM Executive Director) informed the group that the survey as most recently submitted to the Board  
 8 by the PD Committee was accepted. The survey will include two free-form optional entries for feedback, one for the  
 9 exam itself and one for the process of taking the exam. NCWM staff will review the responses and provide feedback  
 10 to the PD Committee / certification coordinator.

11 **Regional Association Comments:**

12 SWMA 2018 Annual Meeting: The Chairman informed the conference that since the proctoring started September  
 13 1<sup>st</sup>, the process is working well. No other comments were received.

14 WWMA 2018 Annual Meeting: The WWMA Professional Development Committee heard no comments during the  
 15 open hearings. The WWMA fully supports the efforts of the NCWM PDC in developing additional exams, and the  
 16 administration and improvement of the current exams.

17 NEWMA 2019 Annual Meeting: The committee was asked how a proctoring program could be set up and who might  
 18 be able to proctor the exams considering certain restrictions. Suggestions were offered including inquiring within  
 19 one’s own Agency to see what other divisions might conduct certifying exams and seeing if those already giving  
 20 exams in an Agency could be recruited to serve as proctors for the W&M Professional Certification Program.

21 CWMA 2019 Annual Meeting: The Committee heard no comments. The CWMA supports the continued efforts of  
 22 the NCWM developing the Precision Scale exam and any additional exams.

<b>CWMA Report</b>
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input checked="" type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>Doug Musick-Kansas, commented that Kansas’s legal team is not going to let them proctor because of legal liabilities. Doug would like the PDC Committee to look into the Proctoring requirements. It was also indicated that some states will discontinue using the Professional Certification Program because of the proctoring requirements.</p>

1 **EDU-2 I Training**

2 The purpose of this item is to share best practices and approaches to training in response to the broad training needs  
 3 of weights and measures jurisdictions and to serve as a link to various training materials on the web.  
 4

5 Tina Butcher (NIST OWM) has continued to provide updates on training provided to the weights and measures  
 6 community by NIST OWM. At the 2018 NCWM Annual Meeting, the Committee agreed that OWM could simplify  
 7 these reports by reporting activities based on the calendar year

8 OWM personnel were unable to attend the 2019 NCWM Interim Meeting due to the Federal Government shutdown  
 9 in early 2019 due to a lack of appropriations. However, OWM provided content for the Committee’s Interim Report  
 10 regarding NIST OWM training conducted in calendar year 2018. This is summarized below followed by a listing of  
 11 upcoming OWM training for the remainder of 2019 and the first part of 2020 is included below for reference.  
 12

<b>NIST OWM Training Conducted in 2018</b>			
<b>Area/Course Name</b>	<b>Start Date</b>	<b>Location</b>	<b>Number of Students</b>
<b>Laboratory Metrology</b>			
Advanced Mass Seminar	08/13/18	Gaithersburg, MD	6
Balance & Scale Calibration Uncertainties	01/09/18	Gaithersburg, MD	10
Fundamentals of Metrology	02/05/18	Gaithersburg, MD	12
	02/12/18	Gaithersburg, MD	12
	04/16/18	Gaithersburg, MD	11
	06/11/18	Gaithersburg, MD	11
	05/14/18	Gaithersburg, MD	9
	10/29/18	Gaithersburg, MD	8
Mass Metrology Seminar	10/15/18	Gaithersburg, MD	9
Selecting Field Standards and Hoisting, General Safety	05/08/18	Saratoga Springs, NY	16
	05/22/18	Springfield, IL	42
Volume Metrology Seminar	06/04/18	Gaithersburg, MD	7
<b>Regional Measurement Assurance Programs</b>			
MidAmerica Measurement Assurance Program	10/01/18	St. Paul, MN	32
Northeastern Measurement Assurance Program	09/10/18	Montpelier, VT	17
Southeastern Measurement Assurance Program	04/30/18	Biloxi, MS	24
Southwestern Assurance Program	09/17/18	Oklahoma City, OK	17
Western Regional Assurance Program	05/07/18	Salt Lake City, UT	16
<b>Info Hours &amp; Other</b>			
State Lab Workload Survey	01/09/18	Web-based	37
Statistics for Metrology Work Group	01/23/18	Web-based	24
ISO/IEC 17025 – 2017 Edition	01/30/18	Web-based	59
Procedure Updates	02/27/18	Web-based	49
Publication Reviews	03/27/18	Web-based	41
Measurement Assurance Assessments	06/19/18	Web-based	67
<b>Webinars</b>			
Basic Uncertainty Concepts	01/18/18	Web-based	11
Calibration Certificate Evaluation	02/01/18	Web-based	4
Conducting an Effective Management Review	02/15/18	Web-based	10
Contract Review	08/09/18	Web-based	7
Calibration Method Validation	02/22/18	Web-based	15
Document Control and Record Keeping	08/30/18	Web-based	9
Internal Auditing Best Practices	03/01/18	Web-based	7
	10/18/18	Web-based	4
Measurement Systems for Legal Metrology	08/01/18	Web-based	8

	11/07/18	Web-based	4
Software Verification & Validation	03/15/18	Web-based	9
State Laboratory Annual Submission Process	09/06/18	Web-based	62
<b>Packaging &amp; Price Verification</b>			
NIST HB 133 – Checking the Net Contents of Packaged Goods, Volumetric Measurement	02/02/18	San Diego, CA	12
NIST Handbook 130 – Uniform Packaging and Labeling Regulations	3/12/18	Orange County, CA	22
	06/05/18	Cleveland, OH	16
NIST HB 133 – Checking the Net Contents of Packaged Goods, Basic	3/26/18	Lebanon, MO	19
	04/16/18	Montgomery, AL	16
	05/14/18	Plantation, FL	18
	10/22/18	Baton Rouge, LA	16
	11/05/18	Needham Heights, MA	11
NIST Handbook 130 – Price Verification	02/09/18	San Diego, CA	15
	05/18/18	Plantation, FL	21
	10/26/18	Baton Rouge, LA	23
<b>Legal Metrology Devices</b>			
Compressed Natural Gas Retail Motor-Fuel Dispensers	04/16/18	Sacramento, CA	16
Liquefied Petroleum Gas Liquid-Measuring Systems	05/14/18	Sacramento, CA	24
	06/11/18	Reynoldsburg, OH	19
Livestock and Animal Scales	04/10/18	Harrisonburg, VA	14

1

<b>NIST OWM Training Scheduled for 2019 and 2020</b>		
<b>Area/Course Name</b>	<b>Dates</b>	<b>Location</b>
<b>Laboratory Metrology</b>		
Advanced Mass Seminar	04/29/19 - 05/09/19	Gaithersburg, MD
Fundamentals of Metrology	03/04/19 - 03/15/19	Gaithersburg, MD
	03/11/19 - 03/15/19	Gaithersburg, MD
	08/19/19 - 08/23/19	Gaithersburg, MD
Fundamentals of Metrology – SIM Participants Only	03/18/19 - 03/22/19	Gaithersburg, MD
	08/19/19 - 08/23/19	Gaithersburg, MD
Mass Metrology Seminar	04/08/19 - 04/18/19	Gaithersburg, MD
	10/21/19 - 11/01/19	Gaithersburg, MD
Volume Metrology Seminar	08/12/19 - 08/16/19	Gaithersburg, MD
<b>Regional Measurement Assurance Programs</b>		
Combined Regional Measurement Assurance Program	06/02/19 – 06/06/19	Lake Mary, FL
CRMAP-Tutorial-Certified Calibration Technician Prep	5/31/19 – 06/02/19	Lake Mary, FL
CRMAP-Tutorial-Assessing & Reporting Measurement Uncertainty	5/31/19 – 06/02/19	Lake Mary, FL
CRMAP-Tutorial- Selection, Cal, Use of Thermometers	5/31/19 – 06/02/19	Lake Mary, FL
CRMAP-Balance and Scale Calibration Uncertainties	5/31/19 – 06/02/19	Lake Mary, FL
<b>Webinars</b>		
Basic Uncertainty Concepts	04/24/19	Webinar
Calibration Certificate Evaluation (2-day session)	08/06/19 & 08/08/19	Webinar
Conducting an Effective Management Review	03/07/19	Webinar
	02/13/20	Webinar
Contract Review	08/15/19	Webinar



Document Control and Record Keeping	08/29/19	Webinar
Internal Auditing Best Practices	02/21/19	Webinar
	10/24/19	Webinar
	02/27/20	Webinar
Measurement Systems for Legal Metrology	06/12/19	Webinar
Software Verification & Validation – Part 1	04/11/19 & 04/25/19	Webinar
State Laboratory Annual Submission Process	09/12/19	Webinar
<b>Packaging &amp; Price Verification</b>		
NIST HB 130 – Uniform Packaging/Labeling Regs	10/28/19 - 10/31/19	Avenel, NJ
NIST HB 133 – Checking Net Contents of Packaged Goods, Basic	04/01/19 - 04/04/19	Gaithersburg, MD
	04/15/19 - 04/18/19	Glendale, AZ
	10/16/19 - 10/17/19	Richmond, VA
<b>Webinars</b>		
NIST Handbook 130 – Price Verification	06/18/19	Webinar
NIST HB 130 – Overview Packaging\Labeling Reg	06/19/19	Webinar
<b>Legal Metrology Devices</b>		
Liquefied Petroleum Gas Liquid-Measuring Systems	06/24/19	Nashville, TN
Retail Motor-Fuel Dispensers, 3-Day Course (CWMA)	05/06/19	Canton, OH
Retail Motor-Fuel Dispensers, 3-Day Course (WWMA)	09/19	Park City, UT
Vehicle-Tank Meters & Loading-Rack Meters	06/10/19	Lawrence, KS

1  
2 A complete list of upcoming OWM training events is available on the calendar of events on the OWM website at:  
3  
4 <https://www.nist.gov/pml/weights-and-measures/about-owm/calendar-events>  
5

6 At the 2018 Annual Meeting, Ms. Butcher noted the NIST Office of Weights and Measures (OWM) has been asked  
7 by multiple Regional Weights and Measures Associations (Regionals) to offer training seminars in conjunction with  
8 their annual meetings. OWM welcomes and appreciates the opportunity to offer training in this venue and reach  
9 multiple jurisdictions at once. To assist in planning for training in 2019 and in developing materials for future courses,  
10 OWM has asked for feedback from each Regional. Drawing from its full list of training topics, OWM identified topics  
11 on which OWM is prepared to offer training at the 2019 Regional meetings (and would lend themselves to the time  
12 constraints of a Regional) as shown below and distributed this list to each Region’s main point of contact at the  
13 beginning of June.

<b>Packaging and Labeling and Price Verification:</b>	
	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)
<b>Devices:</b>	
	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)

14  
15 OWM hopes to identify one or two training topics that would be of interest to multiple Regionals to help maximize  
16 the use of its resources in preparing for the training. OWM is also seeking feedback from the Regionals and others  
17 on ideas for *future* topics that may be needed to assist jurisdictions with addressing changes in technology and  
18 marketplace practices.

1  
2 OWM discussed these training options with the regions during their scheduled meetings Wednesday morning at the  
3 Annual Meeting. Mrs. Butcher also noted OWM would like to use a similar approach of obtaining regional input each  
4 year to help OWM better meet any requests for training by OWM that the regions might have.  
5

6 At the Interim Meeting 2019, it was requested that the Committee consider reviewing and potentially  
7 updating/reintroducing the old NIST OWM training modules. The Committee is not sure whether these modules are  
8 still available in digital form but will investigate.  
9

10 Ross Andersen (NY, retired) indicated that NIST has extensive training materials that we could leverage; requesting  
11 these materials from NIST may be beneficial.  
12

13 The state of Kansas communicated some upcoming training they had planned; this training will cover both VTM and  
14 load rack training and will be held for 5 days starting June 10.  
15

16 We were reminded of the NIST metrology training in Florida:

- 17 • Combined Regional Measurement Assurance Program (C-RMAP) Tutorial 1-4
    - 18 ○ May 31 - June 2, 2019
  - 19 • Combined Regional Measurement Assurance Program (C-RMAP)
    - 20 ○ June 2 – 6, 2019
- 21

22 Three states recommended that NCWM and NIST OWM consider joint development of training videos, and  
23 investigate funding from additional sources (grants, etc.).  
24

25 NCWM 2019 Annual Conference: Christopher Guay (AMC, Proctor & Gamble) asked if webinars or other NIST  
26 training could be made available to associate members or industry in general. Tina Butcher (NIST OWM) responded  
27 by indicating that that is already possible on an as-available basis.  
28

**Regional Association Comments:**

29 WWMA 2018 Annual Meeting: The WWMA Professional Development Committee heard the following comments  
30 during open hearings:  
31

- 32 • John Young (Yolo County, CA) would like to have the following training offered by NIST at the WWMA  
33 annual meeting: Gravimetric testing for mass flow meters and liquid measuring devices such as CNG, LNG,  
34 Hydrogen, and bulk oil; electric vehicle charging stations; and training on how to select the proper master  
35 meter for different products.
- 36 • Tina Butcher (NIST OWM) would like the various regions to begin discussions as early as possible regarding  
37 training requests for the 2020 and beyond regional meetings. There are a limited number of NIST trainings  
38 courses that will fit into the schedule for a regional meeting, the NIST OWM would like each region to  
39 prioritize the type of trainings from the list currently offered by NIST. Other considerations would be  
40 equipment requirements available to conduct the training.
- 41 • Kipp Blauer (NV) would like precision scale training focused on scales used to weigh tobacco-like products.  
42 Training should be targeted on the practical use of the scales, rather than NTEP requirements.
- 43 • Tina Butcher stated that NIST, being a federal government agency, could not conduct training specifically  
44 related to the cannabis industry.
- 45 • Kevin Merritt (ID) would like training on gravimetric testing of bulk oil meters.
- 46 • Marco Mares (San Diego County, CA) would also like to see a course on gravimetric testing.
- 47 • Cathy Fisher (Santa Barbara County, CA) would like training on precision scales and package labeling. Cathy  
48 also mentioned that the 2018 Farm Bill now allows the growing of industrial hemp in all states with regulatory  
49 programs.
- 50 • Jerry Johnson (WY) would like training on forklift scales.
- 51 • Tina Butcher suggested the WWMA PDC committee poll the western region states to select the top three  
52 topics for training offered by NIST at the regionals.
- 53 • Stan Toy (Santa Clara County, CA) wanted clarification as to whether gravimetric training currently offered  
54 by NIST would be applicable to the bulk oil and other device training requested by other jurisdictions. Tina  
55 responded that this training was focused on packaged products.

- Brett Gurney (UT) would like training on audit trails

SWMA 2018 Annual Meeting: 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.

NEWMA 2019 Annual Meeting: Dr. Doug Olson, Chief, NIST OWM stated that the OWM is responding to feedback from the regions and has started developing webinars and online video training programs to be offered to W&M jurisdictions. Ethan Brogan, Westchester County W&M, suggested training on package checking for new inspectors at the regional meetings. Lisa Warfield, NIST OWM stated that a complete training might be difficult to deliver within the prescribed time constraints but that they may be able to provide a basic overview of package checking. Some states expressed a concern over the cost of training which often limits attendees to no more than two or three overnights. James Cassidy, State of MA W&M, suggested that NEWMA should work with the Committee to coordinate more training courses in NEWMA states.

CWMA 2019 Annual Meeting: The committee heard no comments. Kansas will be having the VTM and Load Rack meter classes starting on June 10th. This class is full. There will be a LPG class offered in Nashville, TN starting on June 24th. This class still has openings and are looking for participants to attend.

<b>CWMA Report</b>
<p><b>Regional recommendation to NCWM on item status:</b></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  <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i> </p>
<p><b>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></b></p> <p>Rachelle Miller (WI) informed the committee 2020 CWMA Annual Meeting held at Wisconsin Dells, Wisconsin will host a Class II scale training class.</p> <p>Loren Minnich (KS) suggested retail computing, medium scale and Vehicle Scale Training be offered more often for new employees. CWMA is the only region that has offered any of these classes in the last couple of years.</p> <p>Lori Jacobson (SD) stated concerns with Metrology Classes, classes are offered back to back and if Metrologist is required to have lab time in between classes than there is not enough time between the classes. Proposed the committee have a discussion with NIST about spreading out classes. Lori also suggested training for heavy scale inspectors.</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

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

10  
11 NIST training seminars on field inspection topics are only held a limited number of times each year. This poses a  
12 challenge in sustaining regular interaction and involvement of NIST trainer candidates. NIST does not have the  
13 resources to develop and sustain the development of all the trainers it has invited to participate in the NIST trainer  
14 program activities and events held over the past several years; however, even if a candidate is not designated to  
15 participate as an instructor in a NIST seminar, they and their jurisdictions can benefit from the experience and the  
16 candidate can still provide valuable training in their jurisdiction and region.

17  
18 A list of all people who have attended a NIST “Train the Trainer” class or associated event has been posted on the  
19 NCWM website. Many people on this list have attended NIST “train the trainer” events and workshops but have  
20 not served as co-instructors for NIST classes and, in some cases, have not attended NIST technical training schools  
21 in the areas in which they are interested in serving as trainers. Conversely, there are people on this list who have  
22 attended the workshops and NIST technical training seminars and have also served as co-instructors in NIST  
23 training seminars. Because of the variations in experience levels of individuals on this list and because OWM has  
24 not authorized anyone (external to NIST) to independently present “NIST” classes and is still refining the program  
25 infrastructure, confusion has arisen in the weights and measures community regarding classes that these individuals  
26 may present on their own. NIST and NCWM are considering how to best depict these listings to reflect the status  
27 of the trainers listed such that confusion can be avoided in the future

28  
29 OWM appreciates the strong support of the NCWM, the PDC, the volunteer trainers, and their administrators in  
30 continuing to develop the NIST Trainer Program. OWM will continue to provide the Committee with updates on  
31 its progress as well as continue to collaborate with and support the Committee in its work.

32  
33 The Committee continues to hear comments from States expressing appreciation for the NCWM Professional  
34 Certification Program and the NIST Training Program. The Committee also heard favorable comments about the  
35 training materials and tools provided by NIST, including a video on testing retail motor-fuel dispensers (RMFDs).  
36 As noted in Item 410-2, the NIST video is divided into segments focusing on specific parts of the RMFD test  
37 procedure that can be used to supplement and enhance instructor-led training. The video can be accessed through  
38 OWM’s home page or by going directly to the following link: [http://www.nist.gov/pml/wmd/lmdg/training-](http://www.nist.gov/pml/wmd/lmdg/training-materials.cfm)  
39 [materials.cfm](http://www.nist.gov/pml/wmd/lmdg/training-materials.cfm).

40  
41 The Committee has reiterated multiple times in the past that the responsibility for training employees rests with  
42 individual organizations (weights and measures jurisdictions and industry alike). While NIST and other training  
43 providers offer excellent sources of training and training materials, organizations must develop and manage their  
44 own training programs, including developing trainers; establishing individual development plans for employees;  
45 and identifying strategies for continually assessing and responding to training needs. The Committee recognizes  
46 that NIST OWM cannot possibly train all weights and measures inspectors in the country. The state and municipal  
47 jurisdictions have ultimate responsibility for training and qualifying their personnel. To fulfill this responsibility,  
48 jurisdictions should be making individual plans to maintain or bolster their training efforts. NIST OWM should be  
49 viewed as one vital resource to support that effort. The Professional Development Committee is another resource.  
50 The Committee has created and posted on its website, the “Body of Knowledge” to establish uniform learning  
51 objectives for weights and measures professionals. In addition, the Committee has posted a Model Field Training  
52 Program document on its website. This program outlines methods to evaluate and document training and offers  
53 guidance on training new inspectors and taking steps to ensure their ongoing development.

54  
55 These initiatives require competent and qualified trainers and a centralized management plan within the jurisdiction.

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

- 5
- 6 • ability to assess employee competence and training needs,
- 7 • ability to create learning materials from technical material,
- 8 • ability to use adult learning techniques adapted to individual and group needs,
- 9 • ability to plan training activities and find appropriate training venues,
- 10 • ability to find creative ways to deliver training with tight budgets, and
- 11 • ability to adapt the overall training program to best serve jurisdiction goals
- 12

13 In 2015 OWM developed a NIST Instructor Training Program Instructor Competency Assessment and Feedback  
 14 Instrument that can be used as a self-assessment tool by instructors and assist them in identifying and setting goals  
 15 to strengthen and develop their skills as trainers. Included in this assessment tool is a broad list of competencies  
 16 for trainers based on a model developed by the U.S. Department of Education (see [http://www.pro-net2000.org/CM/content\\_files/70.pdf](http://www.pro-net2000.org/CM/content_files/70.pdf) for details). For the purposes of serving as a NIST OWM trainer, only a  
 17 subset of these competencies may be necessary, although some trainers participating in the NIST Trainer Program  
 18 may be required to master more of them to meet broader training responsibilities within their own agencies. See  
 19 past Committee reports for additional background.

20  
 21  
 22 As previously reported, NIST OWM is authorized by IACET to issue “Continuing Education Units” for certain  
 23 training seminars and, as part of this authorization, there are certain provisions that an instructor must follow to meet  
 24 these requirements. NIST Certificates and the accompanying CEUs can only be issued if these criteria are met; this  
 25 includes ensuring that the material is presented consistent with the learning objectives and interpretations specified  
 26 by NIST OWM and in the same time frame. OWM staff trainers have completed IACET training courses and are  
 27 familiar with the procedures that OWM has implemented to ensure compliance with IACET-related requirements for  
 28 NIST training courses. External trainers in the NIST Trainer Program must also understand these provisions. OWM  
 29 has presented several short webinars to help its external trainers obtain the necessary training and will continue to  
 30 seek opportunities to provide this training to those who have not yet completed it.

31  
 32 At the 2016 Annual Meeting, Ms. Butcher reported that NIST is making an additional \$100,000 grant to NCWM to  
 33 support travel and training events for the NIST Trainer program. OWM continues to work on formalizing the NIST  
 34 Trainer Program. At the 2017 Annual Meeting, Ms. Butcher updated the Committee on progress on “Instructor  
 35 Improvement” in the NIST Trainer Program. She noted that OWM is continuing to work on the infrastructure of the  
 36 program, including documenting:

- 37
- 38 • Procedures for Selection, Evaluation, and Feedback to Instructors
- 39 • Instrument - Instructor Competency Assessment and Feedback – Overall
  - 40 ○ Based on US Dept. of Education model for overall development
- 41 • Instrument - Instructor Competency Assessment - specific courses
- 42 • Criteria for Developing Participants in NIST Instructor Training Program and Use of the NIST-NCWM  
 43 Training Grant
- 44 • Instructor Agreement
- 45

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

1 Ms. Butcher reported that 10 of OWM’s 44 training sessions in 2016 included non-NIST instructors assisting in the  
2 NIST OWM classes. Travel for external trainers serving as co-instructors in these classes is funded using travel from  
3 a grant provided by NIST to NCWM. She expressed appreciation to NCWM for its continued assistance in  
4 administering the grant and helping make the process of getting the trainers to these courses as smooth as possible.  
5

6 Ms. Butcher also reported that several instructor training webinars had been offered to external trainers, including  
7 webinars on Blooms Taxonomy; learning objectives; and the ADDIE model. She noted that one of NIST’s external  
8 trainers audited a “Train-the-Trainer” course offered by the American Management Association and OWM is  
9 considering if this might be a course that could be used by prospective NIST instructors in their own personal  
10 development as trainers. Ms. Butcher noted that OWM is continuing to involve external trainers in its training efforts  
11 and has been increasing their responsibilities in these seminars. She emphasized the significant impact that the  
12 external trainers have had on the success of the NIST courses and expressed appreciation for the trainers who give of  
13 their time and expertise and the directors who allow the trainers time away to assist with these courses.  
14

15 Since NIST was not in attendance at the Interim Meeting 2019, no updates were available. No comments were heard  
16 on this item.  
17

18 NCWM 2019 Annual Conference: Julie Quinn (MN, retired) suggested that NIST OWM consider allowing qualified  
19 individuals to take advanced NIST classes if proven capable by means other than passing a basic NIST exam. Rochelle  
20 Miller (WI) suggested that for example passing an NCWM professional certification in package checking could be a  
21 suitable alternate prerequisite for NIST advanced package checking training. NIST OWM indicated that they will  
22 discuss the possibility of alternate prerequisites.

23 Michelle Wilson (AZ) stressed the importance of allowing/providing external trainers and requested that those trained  
24 by NIST via the train-the-trainer program be certified as qualified trainers.  
25

26 **Regional Association Comments:**

27 WWMA 2018 Annual Meeting: The WWMA Professional Development Committee heard no comments during the  
28 open hearings. The WWMA continues to support the ongoing efforts of the NIST/OWM Train the Trainer Program.  
29

30 SWMA 2018 Annual Meeting: No comments received.  
31

32 NEWMA 2019 Annual Meeting: No comments received.  
33

34 CWMA 2019 Annual Meeting: No comments received. The CWMA supports the continued efforts in improving  
35 instructor training.  
36

<b>CWMA Report</b>	
<b>Regional recommendation to NCWM on item status:</b>	
<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 <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<b>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></b>	
The committee heard no comments and the CWMA supports the continued efforts in improving instructor training.	

## 1 EDU-4 I Recommended Topics for Conference Training

2 The Board of Directors has charged the Committee with recommending appropriate topics for the technical sessions  
3 at future annual meetings. The Board of Directors asks the PDC to review and prioritize possible presentation  
4 topics and to submit those to the NCWM Chairman. The Chairman will coordinate with NCWM staff to secure  
5 presenters.  
6

7 The following is a list of technical presentations made at the NCWM since 2009. Presentations given since 2010  
8 are available at [www.ncwm.net/meetings/annual/archive](http://www.ncwm.net/meetings/annual/archive).  
9

- 10 • Planning and Coordinating a National Market Place Survey (Ms. Rachelle Miller, WI 2017);
- 11 • The Life Cycle of Petroleum from Well to Retail (Mr. Prentiss Searles, API 2017);
- 12 • The United States Mint at Denver – Gold, Coins and Embezzlement (Mr. Thomas Fesing, 2016)
- 13 • Understanding Transportation Network Systems (Ms. Andrea Ambrose Lobato, Lyft and Mr. Bob O’  
14 Leary, Uber 2016)
- 15 • Regulatory Consideration for Legalized Marijuana (Ms. Julie Quinn, MN and Mr. Nick Brechun, CO 2016)
- 16 • Motor Oil Quality Violations (Mr. Tom Glenn, Petroleum Quality Institute of America, 2014);
- 17 • Making Sense of Electronic Receipts (Mr. Justin Hotard, Vice President and General Manager, NCR  
18 Corporation, 2014);
- 19 • LNG & CNG Motor Fuel – A Technical Briefing from Industry (Mr. Doug Horne, President CVEF, Mr.  
20 Zack Wester, Blu, Mr. Jeff Clarke, NGVA, 2014);
- 21 • Taximeter Technology Advancements (Mr. Matt Daus, International Association of Transportation  
22 Regulators, 2013);
- 23 • Advanced Vehicles and Fuel Quality (Mr. John M Cabaniss, Jr., Association of Global Automakers, 2013);
- 24 • Economic Justification and Demonstrating Value of Weights and Measures (Mr. Tim Chesser, Arkansas  
25 Bureau of Standards, 2012);
- 26 • Conducting Effective Marketplace Surveys and Investigations (Ms. Judy Cardin, Wisconsin Weights and  
27 Measures, 2012);
- 28 • Public Relations and Customer Service as Regulators (Mr. Doug Deiman, Alaska Division of Measurement  
29 Standards/ CVE, 2012);
- 30 • An Overview of Unit Pricing in the United States (Mr. David Sefcik, NIST OWM, 2011);
- 31 • Grocery Unit Pricing in Australia (Mr. Ian Jarratt, Queensland Consumers Association, 2011);
- 32 • Grocery Unit Pricing in Canada (Mr. Ian Jarratt, Queensland Consumers Association, 2011);
- 33 • The U.S. Hydrogen Measuring System: The Turning Point? (Ms. Kristin Macey, California Division of  
34 Measurement Standards, 2011);
- 35 • Corrosion in Ultra Low Sulfur Diesel Underground Storage Systems (Mr. Prentiss Searles and Ms. Lorri  
36 Gainawi, American Petroleum Institute, 2010);
- 37 • Risk-Based Inspection Schemes (Mr. Henry Oppermann, Weights and Measures Consulting, LLC, 2010);
- 38 • Diesel Exhaust Fluid (DEF) (Mr. Gordon Johnson, Gilbarco, Inc., and Mr. Randy Moses, Wayne, 2009);
- 39 • Fuel Volatility and Ethanol Blending (Mr. Jim McGetrick, BP Products, 2009);
- 40 • Investigative Techniques (Mr. Michael Cleary, Retired, 2009)

41  
42 During open hearings at the 2016 Interim Meeting, the Committee heard a suggestion from Ms. Kristin Macey  
43 (CA) for a training session on transportation network systems. Mr. Doug Musick (KS) commented that this type  
44 of technology is showing up in applications other than just passenger transportation and suggested that training in  
45 GPS-based measuring systems in general would be beneficial. He noted that his jurisdiction is encountering a large  
46 number of GPS-based measuring systems being used in assessing charges for the sale and application of crop  
47 fertilizers and other treatments and he noted that the monetary impact is significant.  
48

49 The Committee also heard comments from Mr. Jim Pettinato (FMC), Chairman of the NTEP Software Sector, who  
50 noted that training on issues related to inspection of software-based systems may be beneficial to weights and  
51 measures jurisdictions. He noted that, with the current progress of proposals through the NCWM process, the  
52 Sector is wrapping up its initial work and suggested that the Sector and its members might be able to assist in  
53 training on legal metrology issues relative to software-based weighing and measuring systems. Ms. Julie Quinn

1 (MN) commented that this assistance might be particularly helpful in assisting weights and measures jurisdictions  
2 in understanding and educating inspectors and service personnel on audit trails used in these devices, and she noted  
3 that audit trail training is the most frequently requested training topic in her jurisdiction.  
4

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

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

16  
17 The Committee also discussed the audience that is typically present at NCWM Annual and Interim Meetings, noting  
18 that inspectors and service personnel are not always able to participate in these meetings. The Committee believes  
19 it would be beneficial not only to offer training on key issues such as those listed above at the NCWM meetings,  
20 but to have the training made available at regional and state weights and measures association meetings where more  
21 inspectors and service personnel would be likely to attend. Some aspects of the training might need to be tailored  
22 more toward field inspection that weights and measures administration, but much of the content should be the same.  
23 The Committee would like to collaborate with regional weights and measures associations to suggest that similar  
24 training be provided at the regional level.  
25

26 At the 2016 NCWM Annual Meeting, the Committee suggested that technical training on safety programs be  
27 included at Regional and National Meetings, including an update provided by Julie Quinn at the 2016 Annual  
28 Meeting. The Committee received no additional suggestions or comments regarding proposed training topics.  
29

30 At the Interim Meeting 2019 the following suggestions from the floor for additional topics were received:

- 31 • Investigative reporting
- 32 • D.E.F. Testing requirements, special considerations (handling, safety, equipment)
- 33 • Differentiation between weight classifier and normal rounding scales
- 34 • Organizing/publishing existing training materials

35  
36 NCWM 2019 Annual Conference:

- 37 • Tim Chesser (AR) suggested that a review of the NTEP organization, processes and certificate system would  
38 be a beneficial topic for training in the future.
- 39 • Steve Harrington (OR) offered diving into innovations / new areas in metrology (perhaps an industry  
40 presentation on a new technology). Steve also suggested that we explore advances in modern distributed  
41 weighing/measuring systems, e.g. future point-of-sale systems.
- 42 • Mahesh Albuquerque (CO) suggested the topic of emerging fuels, e.g. EV refueling, hydrogen. Ken  
43 Ramsburg (MD) added LNG/CNG as a possibility. Ken also added the possible topic of the new SI unit  
44 definitions and possible impact on W&M organizations.
- 45 • Brett Gurney (UT) indicated that a possible topic could be a ‘case study’ of a successfully implemented  
46 W&M program (state, county or city) as an example.

47  
48 **Regional Association Comments:**

49 WWMA 2018 Annual Meeting: The WWMA Professional Development Committee heard the following comments  
50 during the open hearings:

- 51 • John Young (Yolo County, CA) recommended training related to the use of cellular phones used in  
52 commercial transactions as indicating devices, e.g. Amazon Go, EV charging, and Uber, etc.
- 53 • Kipp Blauer (NV) suggested training regarding new skimmer technology and communication with law  
54 enforcement agencies.



- Louis Straub (Fairbanks Scales) would like the PDC to consider that often the regional and national committee work sessions are held in conflict with the training seminars. The regional and national committee members and stakeholders are not able to attend the training seminars that are being offered. The field trip to the Magellan Pipeline at the NCWM Annual Meeting in Tulsa, OK. was well attended and these types of field trips might be a better alternative to the training seminars.
- Dick Suiter (Richard Suiter Consulting) suggested training related to the rental of electronic scooters using cell phones.

**SWMA 2018 Annual Meeting:** 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.

**NEWMA 2019 Annual Meeting:** The committee received no additional recommendations on this item. The committee encouraged attendees to contact the committee at a later date if they should have suggestions.

**CWMA 2019 Annual Meeting:** The committee heard no comments. The CWMA stated at the interim meeting that they would like to see Livestock training, Monorail Scale training and Digital Density Training offered at future Annual meetings. The committee discussed during our work session on the Electric Vehicle Supply Equipment (EVSE Charging System) Class/Training.

<b>CWMA Report</b>
<p><b>Regional recommendation to NCWM on item status:</b></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  <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i> </p>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The committee received no comments.</p>

21 **PMT – PROGRAM MANAGEMENT**

22 **PMT-1 I Safety Awareness**

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

27  
 28 In July 2017, the Board of Directors created the Safety Task Group to create a safety tool kit to help weights and  
 29 measures organizations create or improve their own safety programs. The toolkit is complete and is posted on the  
 30 NCWM website at: <http://www.ncwm.net/resource/safety>

31  
 32 At the 2018 annual meeting, the NCWM BOD decided to make the task group a permanent sub-committee associated  
 33 with the PDC. The newly formed Safety Awareness Subcommittee (SAS) will assume responsibility for:

- Maintaining and updating the safety toolkit
- Writing and deploying the NCWM annual safety survey, as well as reporting on the results each year
- Finding resources and/or developing weights-and-measures-focused materials relating to the top hazards identified through the safety survey or through developing the toolkit
- Building a safety culture and developing safety leadership within the NCWM through participation on SAS

The SAS is currently working to improve the annual safety survey by:

- Including questions about near-miss incidents and about incidents resulting in lost or restricted time over multiple years
- Contacting counties and associate members to increase participation
- Writing an instruction guide to help participants gather the information they need before completing the survey

The results of the 2018 survey were consistent with 2016 and 2017 results. Seven injuries were reported which resulted in days-away or lost time. All incidents occurred in the field. Five of them were related to lifting/bending/twisting. The other two were related to slips/trips and falls. Six of the resulting injuries were soft tissue injuries (sprains, strains, torn joint ligaments, etc.) The remaining injury was a back/neck injury.

Although the survey does not currently ask about near-miss incidents, several jurisdictions have shared information about near-miss incidents which resulted in no days-away or lost time. When the results of all three annual surveys are compiled, the top four causes of near-misses are the same as the top four causes of DART incidents.

The following information was provided at the 2019 Interim Meeting:

**Summary of 3 Years and 4.3M Employee Hours**

**Near-Misses = Leading Indicators**  
All Near-Misses 2016 - 2018

Cause	No. of Near-Misses
vehicle accident	12
chemical exposure	4
bending/lifting/twisting	2
slips/trips/falls	1
weather	1
other (cutting/puncturing)	1
total	21

- Employees report near-misses if they think injuries may show up down the road or if property damage involved
- Employees less likely to report common events like bending/twisting/lifting or slips/trips/falls unless immediately injured

**Injuries = Lagging Indicators**  
All Reported Injuries 2016 - 2018

Cause	No. of Injuries	60+ Days lost	60+ Days Restricted
bending/lifting/twisting	22	6	5
slips/trips/falls	10	2	1
vehicle accident	4	1	1
chemical exposure	1	0	0
other	1	0	0
total	38	9	7

- Same top 4 causes, just in different order
- Vehicle accidents takes 2<sup>nd</sup> place if you count near misses
- Once an injury occurs, 20%-30% chance of at least 60 days lost

Item FM5-1 Safety Awareness 12

The SAS will focus some of their efforts next year in developing weights and measures materials related to:

- Bending/Lifting/Twisting
- Vehicle Accidents
- Slips/Trips/Falls
- Chemical Exposure

1 NCWM members are encouraged to review the complete presentation on the 2018 safety survey on the NCWM  
 2 safety page.

3  
 4 The Committee expresses appreciation to the members of the Safety Awareness Subcommittee for their willingness  
 5 to volunteer for this important work.

<b>Safety Awareness Subcommittee</b>		
<b>Office</b>	<b>Name</b>	<b>Affiliation</b>
Chair	Julie Quinn	Minnesota
Public Sector Member	Jason Flint	New Jersey
Public Sector Member	Georgia Harris/Doug Olson	NIST, Office of Weights and Measures
Public Sector Member	Elizabeth Koncki	Maryland
Public Sector Member	Matt Maiten	Santa Barbara County, California
Public Sector Member	Brenda Sharkey	South Dakota
Public Sector Member	Mike Sikula	New York
Private Sector Member	Tisha Ariaga/Jeff Griffith	Marathon Petroleum, LLC
Private Sector Member	Bill Callaway	Cromptco
Private Sector Member	Remy Cano	Northwest Tank and Environmental Services, Inc.
Private Sector Member	Brad Fryburger	Rinstrum, Inc.
Private Sector Member	Robert LaGasse	Mulch and Soil Council
Private Sector Member	John Lawn	Rinstrum, Inc.
Private Sector Member	Richard Shipman	Rice Lake Weighing Systems, Inc.
Private Sector Member	H. Sprague Ackley	Honeywell Safety and Productivity Solutions

6  
 7  
 8 Currently the NCWM safety page houses the list of regional safety liaisons and an archive of past safety articles.

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 10 **Regional Safety Liaisons:**

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 12 **Central Weights and Measures Association (CWMA):**  
 13 Ms. Julie Quinn, Minnesota Weights and Measures Division

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 15 **Northeastern Weights and Measures Association (NEWMA):**  
 16 Mr. Michael Sikula, New York Bureau of Weights and Measures

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 18 **Southern Weights and Measures Association (SWMA):**  
 19 Ms. Elizabeth Koncki, Maryland Department of Agriculture

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 21 **Western Weights and Measures Association (WWMA):**  
 22 Mr. Brett Gurney, Utah Department of Agriculture and Food

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 24 Each region is responsible for providing a safety article for the NCWM newsletter according to the following  
 25 schedule:

<b>Safety Article Schedule</b>		
Issue 3 (September 2019)	CWMA	August 15, 2019
Issue 1 (February 2020)	NEWMA	January 15, 2020
Issue 2 (May 2020)	SWMA	April 15, 2020
Issue 3 (September 2020)	WWMA	August 15, 2020

1 Thanks to the following individuals for their contributions since the 2017 annual meeting:

- 2 • *Preparing Employees for an Active Shooter Event* - Julie Quinn, MN
- 3 • *Safety is Up to Me!* - Brett Gurney, UT
- 4 • *Is it Safe to Run Gasoline Through a Large Volume Prover?* - Mike Sikula, NY
- 5 • *Check it out! The Happy-list State* - Elizabeth Koncki, MD

6 NCWM 2019 Annual Conference: Steve Harrington (OR) suggested that we could publish ‘best ergonomic practices’  
7 in daily W&M routines as these tasks undergo hazard analysis, and communicate these recommendations to avoid  
8 repetitive motion injury, etc. during daily tasks as they are developed.

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10 **Regional Association Comments:**  
11 WWMA 2018 Annual Meeting: The WWMA Professional Development Committee heard no comments during the  
12 open hearings. The WWMA PDC continues to support the importance of safety and the work being done by NCWM.

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14 SWMA 2018 Annual Meeting: The Chairman received no comments on this item.

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16 NEWMA 2019 Annual Meeting: The committee thanks Michael Sikula (NY) for posting the article “Is it Safe to Run  
17 Gasoline Through a Large Volume Prover”. Jimmy Cassidy (MA) requested the help of Mike Sikula to post the safety  
18 presentation on the NEWMA website. The committee thanks all the Safety Awareness Subcommittee members for  
19 their time and efforts.

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21 CWMA 2019 Annual Meeting: No comments were heard. The PDC committee is recommending Brenda Sharkey  
22 (SD) to become Safety Liaison Rep. for the committee to replace Julie Quinn who is retiring.

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<b>CWMA Report</b>
<b>Regional recommendation to NCWM on item status:</b>
<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 <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<b>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></b>
The committee received no comments.

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- 25 Ms. Brenda Sharkey, South Dakota | Committee Chair
  - 26 Ms. Brenda Geist, Kansas | Member
  - 27 Mr. Mike Boehler, Nebraska | Member
  - 28 Ms. Elizabeth Lambert, Missouri | Member
  - 29 Mr. Ryan Rogers, Hoidale Company | AMC Representative
  - 30 Mr. Scott Ferguson, Michigan | NCWM Representative

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32 **Professional Development Committee**