

CWMA Professional Development Committee (PDC) 2022 Interim Meeting Report

Mrs. Brenda Geist, Committee Chair
Kansas

INTRODUCTION

The PD Committee will address the following items in Table A during the Interim Meeting. Table A identifies the agenda items by reference key, title of item, page number and the appendices by appendix designations. The first four digits of an item's reference key are assigned from the Subject Series List. The acronyms for organizations and technical terms used throughout the agenda are identified in Table B. In some cases, background information will be provided for an item. The fact that an item appears on the agenda does not mean it will be presented to National Conference on Weights and Measures (NCWM) for a vote. The Committee will review its agenda and may withdraw some items, present some items for information meant for additional study, issue interpretations, or make specific recommendations for change to the publications identified which will be presented for a vote at the Annual Meeting. The Committee may also take up routine or miscellaneous items brought to its attention after the preparation of this document. The Committee may decide to accept items for discussion that are not listed in this document, providing they meet the criteria for exceptions as presented in Section H of the introductions to *Handbook 44* and *Handbook 130*. The Committee has not determined whether the items presented will be Voting or Informational in nature; these determinations will result from their deliberations at the Interim Meeting.

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***.

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 if (1) NCWM Chairman or, in their absence, NCWM 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 table. If possible, the posting will be done at least a day prior to the planned closed session.

Note: It is policy to use metric units of measurement in 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.

Subject Series List

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

**Table A
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EDU – EDUCATION.....		
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**Table B
Glossary of Acronyms and Terms**

Acronym	Term	Acronym	Term
CWMA	Central Weights and Measures Association	OWM	Office of Weights and Measures
NCWM	National Conference on Weights and Measures	PDC	Professional Development Committee
NEWMA	Northeastern Weights and Measures Association	SWMA	Southern Weights and Measures Association
NIST	National Institute of Standards and Technology	WWMA	Western Weights and Measures Association
SETG	Skimmer Education Task Group		

Details of All Items
(In order by Reference Key)

1 **EDU – EDUCATION**

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

3 The NCWM offers nine professional certification exams and two basic competency exams. The certification exams
4 include Retail Motor Fuel Dispensers, Vehicle-Tank Meters, Small Capacity Scales, Medium Capacity Scales, Large
5 Capacity Scales, Precision Scales, LPG and Anhydrous Ammonia, Price Verification and Basic Package Checking.
6 Reporting on the Precision Scales exam begins this year. The competency exams include Basic Weighing Devices
7 and Basic Liquid-Measuring Devices. Professional certifications must be renewed every five years and NCWM
8 notifies candidates whose certificates have expired.

9 Proctoring was initiated as a first step towards accreditation of the certification program. Each organization is required
10 to register the proctors they intended to use. Proctor qualifications are different for basic competency exams and
11 professional certification exams so two lists of proctors are maintained. To eliminate conflicts of interest, proctors for
12 professional certification exams must not be immediate supervisors of the candidate. Virtual proctoring was initiated
13 in May 2021 and offered at no cost to members through the end of December 2021.

14 The requirements for proctors are posted on the NCWM website at <https://www.ncwm.com/proctoring>. Guidance for
15 virtual proctoring can be found on the same webpage and more detailed information, including a helpful YouTube
16 video on preparing for proctoring can be found on the ProctorU website at [https://support.proctoru.com/hc/en-
17 us/articles/360043565051-Exam-Day-What-to-Expect](https://support.proctoru.com/hc/en-us/articles/360043565051-Exam-Day-What-to-Expect).

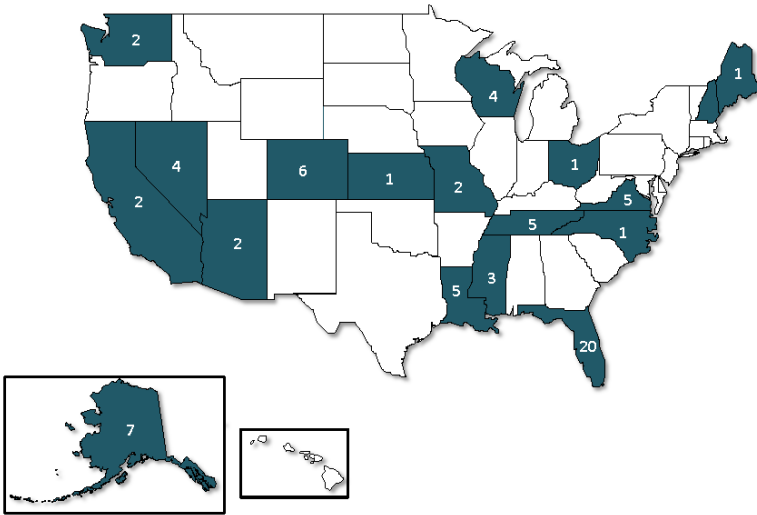
18 **Number of States with Proctors and number of Proctors.** (As of November 2021)

	Professional Certification		Basic Certification	
	States	Proctors	States	Proctors
FY 17-18	7	17	10	39
FY 18-19	11	28	14	57
FY 19-20	16	37	18	70
FY 20-21	17	41	19	73

19

20 **Proctors per state – Basic Competency Exams:**

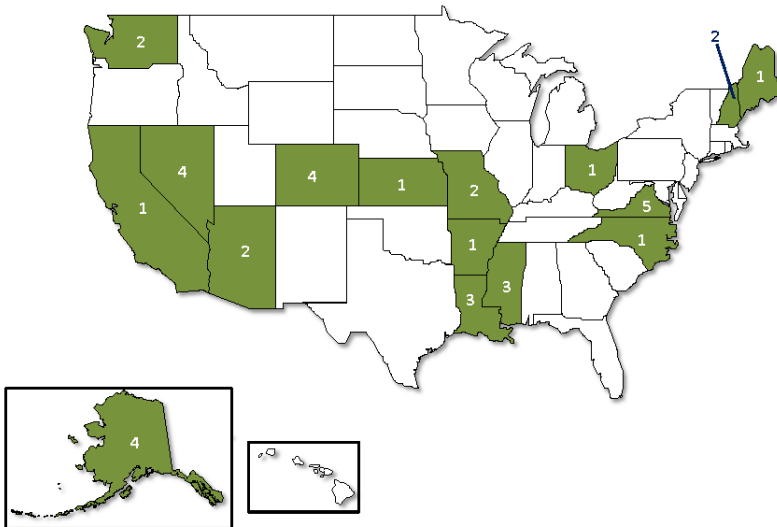
Distribution of In-Person Proctors: Basic Competency Exams
 Updated: November 2021



1

2 **Proctors per state – Professional Certification Exams:**

Distribution of In-Person Proctors: Professional Certification Exams
 Updated: November 2021



3

4 The table below shows the number of virtual and in-person proctored tests completed in FY 20-21.

5

	Proctoring	
	In-person	Virtual
Professional Certification	86	11
Basic Competency Certification	49	2

6

1 **Status of Current Tests**

2 The NCWM has issued 1168 professional certificates over the past ten years of the Professional Certification Program
 3 and 1212 since program inception through September 30, 2021. Of the certificates issued, twelve have been issued to
 4 individuals in the private sector. There has been a significant decline in participation in the program. It appears that
 5 the decline coincides with the requirement to proctor exams and the pandemic. Some of the certificates have reached
 6 their 5-year expiration and certificate holders will need to seek recertification. Several certificates were extended by
 7 the Board of Directors to September 2021 to accommodate the difficulties associated with the pandemic.

8 **NCWM Professional Certificates**

9 The table below shows the number of certificates awarded over the past ten years and the cumulative total since
 10 program inception.

	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Certificates Awarded	94	105	62	198	140	142	257	53	57	60
Cumulative	138	243	305	503	643	785	1042	1095	1152	1212

11
 12 The table below shows the states using the professional certification program and the number of certificates earned
 13 since program inception and includes expired certificates. The Committee applauds these states and encourages
 14 increased use of the certification program.

State	Certificates	State	Certificates	State	Certificates
Minnesota	153	Arizona	28	Pennsylvania	7
Missouri	143	Nevada	27	Wyoming	7
Wisconsin	95	Maine	26	Arkansas	6
Maryland	77	New Mexico	25	Delaware	4
Louisiana	74	New York	19	Michigan	3
Virginia	70	Colorado	18	South Dakota	3
Mississippi	56	Connecticut	15	Oregon	2
North Carolina	52	Ohio	14	Tennessee	2
Washington	50	Indiana	13	Montana	1
Alaska	50	Private	12	New Hampshire	1
Kansas	46	Idaho	11	West Virginia	1
California	41	Massachusetts	11		
Nebraska	33	Vermont	8		

15
 16 **NCWM Basic Competency Certificates**

17 The table below shows the number of basic competency certificates awarded since program inception.

	FY17-18	FY18-19	FY19-20	FY20-21	Cumulative
Basic - Measuring	0	40	14	12	66
Basic - Weighing	1	24	11	5	41
Total Awarded	1	64	25	17	107

18

1 The table below shows those states with individuals holding a basic competency certificate. The Committee applauds
 2 these states and encourages increased use of the certification program nationwide

State	Certificates	State	Certificates
Louisiana	45	Florida	3
Tennessee	42	Nevada	2
Alaska	6	Arkansas	1
Colorado	5	Kansas	1

3 **NCWM Meeting Comments:**

4 NCWM 2022 Interim Meeting: The 2022 Interim Meeting was held in an in-person and online hybrid meeting format.
 5 Mr. Jerry Buendel (Certification Coordinator) briefed the members on the results of the FY 21 certification program.
 6 He also suggested that the members consider using NCWM to administer their service agent exams. He noted that
 7 NCWM has over 1100 questions in the test bank that can be used to build exams and suggested that NCWM could
 8 host state specific regulatory questions in their database to use in the exams. Mr. Buendel stated that he has spoken
 9 to service companies that would welcome the opportunity to take a licensing exam that was acceptable to several
 10 states. He indicated that he is available to discuss the possibilities with interested jurisdictions.

11 No comments were heard during the open hearing.

12 The members reviewed the post exam surveys provided by NCWM during the committee agenda review on January
 13 9, 2022.

14

15 NCWM 2022 Annual Meeting: During the 2022 Annual Meeting an updated presentation was provided by Mr. Jerry
 16 Buendel, (Exam Coordinator). Mr. Buendel requested volunteers to write questions for two new exams and to begin
 17 a process to make use the NCWM certification program resources for service agent examinations. Tim Chesser
 18 (Arkansas) inquired on how to require service agents to participate in exams. He asked if language could be added
 19 that would require service agents to take exams. Vince Wolpert (Arizona) commented regarding the possibility of
 20 states being able to tailor exam questions to fit the needs of individual states. Cheryl Ayer (New Hampshire) noted
 21 that service agents are not prepared to take exams furnished by the state. Mrs. Ayer also wanted to know if there is a
 22 formula for the percentage of questions on identified topics throughout an exam, and how the questions are distributed
 23 in each exam. Several states contacted Mr. Buendel after the hearings and indicated an interest in using NCWM
 24 resources for service agent exams. Jay Draper (Washington) suggested that incorrect questions be identified at the
 25 conclusion of an exam. Don Onwiler (NCWM) stated that test takers are able to contact NCWM to receive feedback
 26 on exam results regarding areas of knowledge need improvement. During the committee meeting after the open
 27 hearings there was consensus among the members to provide feedback to the test takers along with their test score.
 28 The feedback could be designed to identify areas where the test takers failed. Suggestions included citing the sections
 29 of the handbook or indicating the module learning objectives associated with the missed questions.
 30

31 **Regional Association Comments:**

32 WWMA 2021 Annual Meeting: David Aguayo, San Luis Obispo County, CA requested additional comments from
 33 the region regarding Registered Service Agent (RSA) exams for agents who service multiple jurisdictions through the
 34 testing program offered by NCWM.

35

36 Mr. Kurt Floren, Los Angeles County, CA commented that RSA exams are tailored to California state laws and
 37 regulations for the regions they service, and the exams through the NCWM are more general. He suggested that while
 38 some of the core information should be consistent across exams, perhaps there should be a section or sections that
 39 allow for information specific to the various jurisdictions. Cadence Matijevich, NV, agreed with Mr. Floren’s
 40 comments. Both acknowledged that certification and proctoring requirements would complicate the more
 41 individualized approach but is worth consideration. Mahesh Albuquerque, Co, commented that the RSA exams should
 42 cover only information that agents will need to conduct their business and not extraneous or additional questions not

1 related to their applications. Mr. Albuquerque generally supports the concept Mr. Floren and Ms. Matijevich
 2 suggested.

3
 4 The Committee recognizes the importance of developing certification programs for RSAs through the NCWM testing
 5 program. The Committee recommends the NCWM Board of Directors support efforts to organize a task group to
 6 further analyze and develop an action plan to move forward with a national RSA certification program

7 SWMA 2021 Annual Meeting: The PDC heard no comments on this item and recommends this item remains
 8 informational.

9 NEWMA 2021 Interim Meeting: No Comments were heard during open hearings. The committee expressed
 10 appreciation for the ongoing efforts of the NCWM Professional Certification Coordinator. The committee chair
 11 provided membership with an update on available exams, and exams under development. Membership was also
 12 updated regarding available remote proctoring for professional certification and basic competency exams.

13 CWMA 2021 Interim Meeting: Mr. Doug Rathbun (IL) provided information regarding college courses have a process
 14 for proctoring exams online in which the individual uses his/her phone to scan a room to demonstrate that no cheat
 15 sheets or other materials are available. He indicated this may be beneficial tool to use for the Professional Certification
 16 Program. Mr. Loren Minnich (KS) representing the Board of Directors indicated they are close to having an online
 17 proctoring option. Some beta testing has been done and the process is similar to what Mr. Rathbun described. Once
 18 the details are complete, it should be an easy process to have online proctoring capabilities.

19
 20 Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to
 21 www.ncwm.com/publication-15 to review these documents.

CWMA Report: EDU-1	
Regional recommendation to NCWM on item status:	
<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>	
Comments and justification for the regional recommendation to NCWM: (This will appear in NCWM reports)	
Ivan Hankins (IA) commented that CWMA used to have a certification program for service industry and suggested that as a region, we could resume this and include inspectors in the training to have some consistency between the states for service companies. There are some 10 question tests available that some states use currently. Several states agreed they would be interested in resuming this test. Loren Minnich (KS) wondered if any states have utilized the national tests since the proctoring requirement was put into place. Greg VanderPlaats (MN) stated Minnesota used the professional certifications prior to the introduction of proctoring. Since proctoring has taken affect, they have had a hard time finding proctors. He suggests doing away with proctoring. Joe Smith (WI) agreed with ending the proctoring requirement.	

22

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 At the 2022 Interim Meeting, Mrs. Tina Butcher (NIST OWM) provided the following “Summary of NIST OWM
5 Training Conducted in 2021.” Mrs. Butcher also provided an update on plans for OWM training in 2022 and other
6 work underway at NIST to assist weights and measures jurisdictions and industry with legal metrology training.

Summary of NIST OWM Training Conducted in 2021			
Area/Course Name	Start Date	Location	No. of Students
Laboratory Metrology			
Fundamentals of Metrology & LAP Problems Preparation	1/12/21 & 5/11/21	Web-based	6
Regional Measurement Assurance Programs			
MidMAP	10/24/21	Web-based	25
NEMAP	08/02/21	Web-based	21
SEMAP	03/22/21	Web-based	32
SWAP	08/30/21	Web-based	25
WRAP	05/03/21	Web-based	22
Webinars			
Basic Uncertainty Concepts	05/20/21	Web-based	8
Contract Review	03/11/21	Web-based	8
Contract Review	07/29/21	Web-based	5
Document Control and Record Keeping	03/04/21	Web-based	10
Document Control and Record Keeping	07/22/21	Web-based	6
Info Hour – Assessing Field Standards for Calibration & Use (3 sessions: 6/22/21; 9/21/21; & 11/9/21)	06/22/21	Web-based	172
Software Verification & Validation	06/10/21	Web-based	9
State Laboratory Annual Submission Process	07/01/21	Web-based	58
Laws and Metric Program			
Packaging & Price Verification			
Handbook 130 – Examination Procedure for Price Verification <i>5 Sessions:</i> 1/21/2021; 2/16/2021; 4/14/2021; 7/14/2021; 10/1/2021	5 Sessions Jan to Oct 2021	Web-based	Total 178
Handbook 130 – Overview of the Uniform Packaging and Labeling Regulation <i>4 Sessions:</i> 2/17/2021; 4/15/2021; 7/15/2021; 10/7/2021	4 Sessions Feb to Oct 2021	Web-based	Total 156
Handbook 133 – How to Test Animal Bedding <i>4 Sessions:</i> 2/24/2021; 4/28/2021; 7/13/2021; 10/20/2021	4 Sessions Feb to Oct 2021	Web-based	Total 71
Handbook 133 – Overview of Handbook 133 <i>5 Sessions:</i> 2/18/2021; 4/19/2021; 7/27/2021; 8/26/2021; 10/14/2021	5 Sessions Feb to Oct 2021	Web-based	195
Weights and Measures Inspections – Evidence, Search and Seizure, and Due Process <i>5 Sessions:</i> 1/26/2021; 2/23/2021; 4/22/2021; 7/1/2021; 10/26/2021	5 Sessions Jan to Oct 2021	Web-based	Total 183
LPG (Propane) -Verifying the Net Contents of 20 lb Cylinders (Part 1) - NEW	4 Sessions Jun to Oct	Web-based	Total 338

4 Sessions: 6/30/2021; 7/26/2021; 8/24/2021; 10/21/2021	2021		
Metric Education			
Info Session – Metric Education Resources	05/22/21	Web-based	5
	09/11/21	Web-based	4
	09/29/21	Web-based	6
Info Session – Metric Estimation	08/14/21	Web-based	6
	09/15/21	Web-based	3
Measurement System Basics – SI and US Customary Units for Regulatory Officials	08/26/21	Webinar	23
Legal Metrology Devices			
No training seminars were offered in 2021.	--	--	--

1
 2 The following includes a summary of training-related activities in each NIST OWM Program along with an update
 3 on some of OWM’s general work in developing and providing legal metrology training.

4 **Laboratory Metrology Program**

5 The following summarizes activities in the NIST OWM Laboratory Metrology Program:

6 **General.** All Laboratory Metrology Program training classes were conducted virtually in 2021, with a total of 16
 7 sessions and 407 students. The Lab Administration Workshop for laboratory metrologist was converted from an in-
 8 person format to virtual.

9 **Regional Metrology Association Training.** All regional measurement assurance program (RMAP) training was
 10 conducted virtually in 2021. After two years of virtual sessions, the Laboratory Metrology Program plans to resume
 11 in-person RMAPs in 2022. OWM is holding abbreviated Fundamentals of Metrology Training at the end of SEMAP
 12 and WRAP in 2022. This abbreviated training is specially designed for metrologist who took OWM’s online
 13 Fundamentals of Metrology courses in 2020 and 2021 and will fill the gap between the online course and OWM’s
 14 regular, in-person Fundamentals course.

15 **Laboratory Metrology Program Training in 2022.** The Laboratory Metrology Program is excited to begin opening
 16 its doors for in-person training at NIST. OWM received a waiver from NIST’s Office of Safety, Health, and
 17 Environment to hold small (limited to 4 participants), in-person classes starting January 31, 2022. Preference will be
 18 given to metrologist from State/Local weights and measures programs for this in-person training. Additional
 19 participants will be included in this training via a virtual format, thus creating a hybrid classroom environment.

20 **Laws and Metric Program**

21 **General.** The Laws and Metric Program conducted 27 webinars on topics related to “Laws and Regulations” in 2021,
 22 this included 6 different topic areas as outlined in the tables above, with 27 sessions and 1121 students. These courses
 23 were offered on a frequency based on the level of demand, but no less than once per quarter during the year. A new
 24 webinar topic was added in June 2021 titled “LPG (Propane) – Verifying the Net Contents of 20 lb Cylinders – Part
 25 1.” This new webinar is part of a series of three webinars. Part 2 and Part 3 of this series are being further developed
 26 and will be offered later in 2022.

27 The Laws and Metric Program also conducted 6 webinars on the topic of “Metric Education;” this included 6 sessions
 28 as described in the tables above with 47 students.

29 “In-person” classes have been postponed until further notice, but options are being explored for different training
 30 options until in-person classes can resume.

1 **Legal Metrology Devices Program**

2 **General.** No webinars were presented by the Legal Metrology Devices Program (LMDP) in 2021. However, several
3 new webinars/courses are in development:

- 4 • Reference Scale Verification for Gravimetric Testing
- 5 • Electric Vehicle Fueling Systems Inspection and Testing
- 6 • Retail Motor-Fuel Dispensers Inspection and Testing

7 As with the Laws and Metric Program, “in-person” classes for field inspection applications have been postponed until
8 further notice. However, the Legal Metrology Devices Program is exploring options for “hybrid” and “blended” class
9 formats, which may combine virtual sessions with limited in-person options.

10 The Legal Metrology Devices Program plans to implement “information hour” type educational sessions in 2022
11 patterned after those used in the past by the Laboratory Metrology Program. These sessions will focus on presenting
12 information on a few select topics, followed by a question and answer session. Topics will be selected from questions
13 OWM has received from officials and industry on various field inspection issues and new inspection areas in the
14 marketplace. OWM will also solicit ideas from the community on future topics. OWM technical staff members Lisa
15 Warfield and Rick Harshman will be developing a format, timeline, and initial topic areas for these sessions.

16 The LMDP also plans to expand available informal learning tools targeted toward field inspection topics. This
17 includes adding to existing tools such as study guides, examination procedure outlines, field manuals, and videos as
18 well as exploring the development of new tools such as checklists and frequently asked questions to assist in field
19 inspections.

20 **General – OWM Training**

21 Mrs. Butcher summarized the following statistics for OWM’s 2021 training as follows:

- 22 • 50 classes presented virtually in Lab Metrology and Laws & Metric Programs
- 23 • 1575 total number of students
- 24 • Training includes regulators and industry and an increased interest from international participants

25 Mrs. Butcher provided an overview of OWM’s training looking forward in 2022. She noted that OWM is beginning
26 to consider options for returning to in-person training. This may begin with limited in-person participants such as
27 provided by the Laboratory Metrology Program onsite at NIST and expanding to include hybrid and blended options
28 involving both virtual and in-person participants.

29 In-person options will be dependent on pandemic conditions and consider the conditions at the site where training will
30 be conducted as well as travel restrictions that may apply to trainers and students. The impact of social distancing
31 requirements on classroom size and configuration and ability to present to groups may also impact training. OWM
32 will continue to reassess these options as the pandemic situation continues to evolve.

33 While OWM fully plans to resume offering in-person training courses when conditions permit, Mrs. Butcher reported,
34 OWM has no intention of eliminating, virtual training options. OWM has reached a significantly larger number of
35 students with virtual training and students who have never had the opportunity to attend NIST OWM training in the
36 past have been able to access training because of the virtual format. Virtual training also offers advantages of
37 flexibility and reduced costs to learners as well as trainers and makes offering multiple sessions of a given course
38 more practical.

39 OWM plans to expand virtual training to include additional topics on field inspection, particularly on device-related
40 topics and will actively explore “hybrid” and “blended” learning options. This might include options such as:

- 41 • Some students attend virtually and some attend in-person;
- 42 • Some portions of class are presented in an in-person format (with smaller size classes) and some portions of
43 class are presented virtually (with larger class sizes); and
- 44 • Exploring “synchronous” and “asynchronous” formats enhanced with pre-recorded lecture and/or video.

1 These options will likely continue even after OWM returns to in-person training.

2 OWM will also be experimenting with available technology and tools to best incorporate elements of “hands on” in
3 field inspection training, recognizing the importance of that “hands on” or “experiential learning” component for field
4 inspection work.

5 Mrs. Butcher has previously shared plans at NIST to create a “Virtual Training Studio.” She reported this project is
6 well underway with significant monetary and facility support from OWM’s parent operating unit, the Physical
7 Measurement Laboratory. This will include outfitting a virtual training space in NIST OWM offices for delivering
8 virtual training and hosting web-based meetings such as work groups and standards development sessions. This
9 “studio” will result in a mid-level space for:

- 10 • Conducting virtual training;
- 11 • Conducting live demonstrations;
- 12 • Video recording and editing;
- 13 • Enhancing livestream capabilities;
- 14 • Hosting and/or participating in virtual meetings as individuals or as a group; and
- 15 • Enable high levels of interactivity with off-site participants with capability to concurrently, view remote
16 participants.

17 OWM is presently conducting a bid process for the design and build of the studio. This studio will also enhance
18 OWM’s virtual training events and its capability to develop training videos.

19 Mrs. Butcher reported OWM recently posted a position (which will be shared with another NIST division) for an
20 Audio Visual Production Specialist to oversee these activities targeted in the Virtual Studio project. OWM is excited
21 to fill this position and further extend OWM’s ability to provide virtual training events as well as enhance both virtual
22 and in-person training.

23 Mrs. Butcher reported that OWM trainers are actively participating in their own professional development through
24 participation in a variety of training courses and activities focused on enhancing their abilities in training design,
25 development, and delivery, with particular emphasis on virtual and hybrid training venues.

26 Mrs. Butcher will continue to provide updates to the Committee and NCWM members at future meetings about
27 available OWM training and future training plans. In the meantime, she reminded those interested in OWM training,
28 to periodically consult the OWM Calendar of Events for upcoming training at the following link on the OWM website:

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

30 NIST OWM looks forward to continued work with the weights and measures community to develop and implement
31 training to assist weights and measures officials and service personnel in their continued professional development.

32 **NCWM Meeting Comments:**

33 NCWM 2022 Interim Meeting: The 2022 Interim Meeting was held in an in-person and online hybrid meeting format.
34 Ms. Tina Butcher (NIST OWM) gave a presentation on EDU -2. Information was provided on NIST Office of Weights
35 and Measures (OWM) trainings offered in 2021 along with upcoming trainings in 2022 as outlined above. Updates to
36 the laboratory metrology program, laws and metric program, legal metrology device program, and field inspection
37 trainings through NIST OWM were provided. Ms. Butcher provided comments on possible in-person training with
38 class sizes limited to four (4) persons. NIST OWM is exploring hybrid-learning options, the possible offering of videos
39 and on demand trainings to meet future training needs. Ms. Butcher reported NIST OWM is in the process of creating
40 an on-site training studio to enhance virtual training and production of training videos.

41 No comments were received during the open hearings.

42

1 NCWM 2022 Annual Meeting: During the 2022 Annual Meeting open hearings, an updated presentation was given
 2 by Ms. Tina Butcher (NIST OWM) on NIST training activity. The updates will appear in the final report. Charles
 3 Stutesman (Kansas) expressed his desire to increase the availability of device specific training for field inspectors in
 4 the regions. He feels that more training should be facilitated by NCWM for field inspectors. Ken Ramsburg
 5 (Maryland) suggested more training be available specifically for device types and handbooks.

6
 7 **Regional Association Comments:**

8 WWMA 2021 Annual Meeting: Ms. Tina Butcher, NIST OWM, commented that NCWM PDC has requested a
 9 summary of NIST trainings each July. A list of trainings from 2019 is included in agenda for this Annual meeting.
 10 She commented that online training is ongoing, but no in-person training is currently being conducted. She anticipated
 11 that in-person trainings would be offered in the future.

12
 13 While online training has been especially valuable during the pandemic, the Committee looks forward to the offering
 14 of in-person trainings.

15 SWMA 2021 Annual Meeting: The PDC heard no comments on this item and recommends this item remains
 16 informational.

17 NEWMA 2021 Interim Meeting: Ms. Tina Butcher (NIST OWM) gave a brief update from NIST OWM. NIST is
 18 not currently offering any in person training at this time and there are no in person trainings on the schedule. NIST
 19 has been able to offer numerous virtual web-based trainings to jurisdictions in both the metrology and legal metrology
 20 devices fields. She also commented on the great progress taking place on the training studio being planned by NIST
 21 which will enhance the availability and quality of virtual trainings that can be offered. Mr. David Sefcik (NIST OWM)
 22 gave an update of the NIST training studio. He stated that great progress is being made in moving this forward. There
 23 is full commitment and support from NIST management, and all equipment has been purchased. NIST is waiting on
 24 a remodel of the building which may take 1-2 years, however that does not prevent NIST staff from working and
 25 practicing with the purchased equipment. The goal is to improve the quality and availability of virtual web-based
 26 trainings that can be offered, and this will continue to be a work in progress.

27
 28 CWMA 2021 Interim Meeting: Ms. Tina Butcher (NIST OWM) provided an update from NIST indicating that all
 29 training is currently being done virtually but will resume in-person once pandemic restrictions have been lifted. She
 30 noted that each July the NCWM PDC has requested a summary of NIST OWM training for the prior calendar year.
 31 A summary of OWM's 2020 training is included in the CWMA's agenda along with a breakdown of training provided
 32 in each of the three OWM programs which provide training. Ms. Butcher informed the committee that NIST will
 33 provide an update on a summary of trainings for a calendar year. Currently, three of the four training programs within
 34 the OWM provide virtual training. Ms. Butcher indicated that Laboratory Metrology may be the first to return to in-
 35 person training but is currently exclusively virtual and will keep a virtual presence in the future in addition to in-person
 36 trainings. She informed the committee the Legal Metrology Devices Program does not do webinar-based trainings but
 37 did develop study guides and other resources for study and skill development. NIST has been working to create a
 38 virtual training studio to host webinars and create videos to be used for trainings and is expected to be complete in the
 39 next year and half. Ms. Butcher encouraged members to look for training opportunities frequently as the list of
 40 available trainings is updated regularly on NIST's website. Mr. Charles Stutesman (KS) commented that he
 41 appreciates the work of the NIST trainers but has realized the pandemic has brought to light that certain trainings are
 42 needed that cannot be done virtually such as vehicle scale, LPG bulk truck, etc. Mr. Stutesman indicated he would
 43 like NCWM to begin developing training programs utilizing the subject matter experts found within its membership.
 44 He reminded the committee of the distinction between professional certification and trainings and would like the PDC
 45 to move forward with generating training materials. Mr. Mike Harrington (IA) complimented the NIST trainings that
 46 have been made available, specifically mentioning the Evidence Search and Seizure class, which he recommends to
 47 all inspectors. He also agreed that in-person training offers things that virtual trainings cannot. Mr. Doug Rathbun
 48 (IL) indicated that during the CWMA executive meeting it was made known the CWMA has a fair amount of funds
 49 available that may be utilized for in-person training within the Central region. Ms. Tina Butcher (NIST OWM)
 50 concurred with previous commenters that there is a lot of expertise in the community and that a vast amount of training
 51 is provided informally, and informal training holds a critical place in professional development.

CWMA Report: EDU-2	
Regional recommendation to NCWM on item status:	
<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>	
Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i>	
<p>Doug Musick (KS) suggested scheduling a training for an upcoming CWMA meeting. Loren Minnich (KS) agreed and mentioned that prior to the pandemic there was a precision scales training scheduled for the 2020 Annual meeting that had to be moved to a virtual meeting and the training was never rescheduled.</p>	

1

2 Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to
 3 www.ncwm.com/publication-15 to review these documents.

4 **EDU-3 I Instructor Improvement**

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

18 NIST OWM has also provided ongoing contributions to assist the community in the development of instructors. OWM
 19 has provided legal metrology training for weights and measures jurisdictions and industry for many years but does not
 20 have the resources to respond to the numerous training requests it receives. OWM has long recognized that there are
 21 many individuals with extensive legal metrology experience who have the skills needed to provide this type of training.
 22 OWM hopes to continue to draw from this pool to develop trainers who can present schools with NIST, thus leveraging
 23 NIST resources; providing more timely classes; and providing a way to more broadly share the valuable expertise
 24 these individuals possess. In the past ten years, NIST OWM has taken on more field inspection classes than it would
 25 otherwise be able to do because of the co-instructors drawn from its current pool of trainers.

26 Mrs. Tina Butcher (NIST OWM) has regularly updated the Committee on instructor development work by NIST
 27 OWM.

28 See the Committee’s past reports for background information on this item along with other details on available tools
 29 for trainer development and NIST OWM’s efforts and partnership with the NCWM to continue this work.

1 **NCWM Meeting Comments:**

2 NCWM 2022 Interim Meeting: The 2022 Interim Meeting was held in an in-person and online hybrid meeting format.
 3 Mrs. Tina Butcher (NIST OWM) gave a presentation on EDU-3. She reported no new work was done by NIST in the
 4 area of instructor improvement in 2021. This was solely due to pandemic-related interruption of in-person NIST
 5 OWM training events. The NIST OWM plans to continue collaboration efforts with external trainers in 2022.

6 As noted during past updates, Mrs. Butcher emphasized that OWM sincerely appreciates the time and resources
 7 committed by these trainers and their organizations in support of this important partnership and the expertise that these
 8 trainers bring to NIST training events and looks forward to continued collaboration. OWM will continue to provide
 9 the Committee with updates on its progress as well as continue to collaborate with and support the Committee in its
 10 work.

11 No comments were received during the open hearings.

12

13

14 NCWM 2022 Annual Meeting: During the 2022 Annual Meeting, an update was provided by Ms. Tina Butcher
 15 (NIST). The update will be included in the final report. Doug Rathbun (Illinois) thanked NIST for the training that
 16 has been provided. Vince Wolpert (Arizona) acknowledged how the available training has contributed to his success
 17 in furthering his career as a regulator. Mr. Wolpert suggested training could be made available that utilizes a hybrid
 18 model with NIST contributing to the virtual component of the training, while combining with local instructors adding
 19 an in-person element to the training. Cheryl Ayer (NH) pointed out some of the virtues of virtual and hands on
 20 training. Mrs. Ayer noted that students may have different levels of knowledge. Elements of virtual training may be
 21 more beneficial to some learners, as modules could be repeated or replayed while other students may prefer the hands-
 22 on elements of in person instruction.

23

24 **Regional Association Comments:**

25 WWMA 2021 Annual Meeting: During the 2021 WWMA Annual Meeting the following comments were received:
 26 Ms. Tina Butcher, NIST OWM commented that they work continuously throughout the year to develop new trainers.
 27 She reports that they intend to return to full cooperation with training partners post-pandemic. Ms. Butcher further
 28 commented that she appreciated the efforts of all regional support training throughout the year.
 29

30 The Committee continues to support the efforts of NIST and their training partners.

31 SWMA 2021 Annual Meeting: The PDC heard no comments on this item and recommends this item remains
 32 informational.

33 NEWMA 2021 Interim Meeting: No Comments were heard during open hearings. Due to ongoing COVID related
 34 restrictions there has not been much activity on this item.

35 CWMA 2021 Interim Meeting: Ms. Tina Butcher (NIST OWM) provided a brief update on NIST OWM activities in
 36 the area of “Instructor Improvement.” Because OWM’s Instructor Training Program is largely structured around in-
 37 person training events, little has been done in this area since the restrictions imposed by the COVID-19 pandemic on
 38 OWM’s offering of in-person training. Ms. Butcher indicated that OWM remains fully committed to supporting
 39 instructor training and expects to resume this collaborative work once in-person training resumes. OWM is also
 40 considering whether there might be opportunities to collaborate with its current corps of co-instructors in a hybrid
 41 format, possibly including virtual training for portions of a class in conjunction with a hands-on training portion
 42 conducted by co-instructors in their areas. She expressed continued appreciation to these trainers for sharing their
 43 time and expertise and to their administrators for allowing them to devote time in support of this program. Mr. Charles
 44 Stutesman (KS) commented he would like to see the conference utilize the persons that have completed the train the
 45 trainer programs and have been determined as subject matter experts to conduct trainings. He indicated that using
 46 those subject matter experts in that way will help fill the gaps in areas that have been exposed as in-person training

1 needs due to the pandemic and travel restrictions.

CWMA Report: EDU-3	
Regional recommendation to NCWM on item status:	
<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>
Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i>	
No comments were heard on this item.	

2
3

4 Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to
5 www.ncwm.com/publication-15 to review these documents.

6 **EDU-4 I Recommended Topics for Conference Training**

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

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

- 12 • Planning and Coordinating a National Market Place Survey (Ms. Rachelle Miller, WI, 2017)
- 13 • The Life Cycle of Petroleum from Well to Retail (Mr. Prentiss Searles, API 2017)
- 14 • The United States Mint at Denver – Gold, Coins and Embezzlement (Mr. Thomas Fesing, 2016)
- 15 • Understanding Transportation Network Systems (Ms. Andrea Ambrose Lobato, Lyft and Mr. Bob O’
- 16 Leary, Uber 2016)
- 17 • Regulatory Consideration for Legalized Marijuana (Ms. Julie Quinn, MN, and Mr. Nick Brechun, CO,
- 18 2016)
- 19 • Motor Oil Quality Violations (Mr. Tom Glenn, Petroleum Quality Institute of America, 2014)
- 20 • Making Sense of Electronic Receipts (Mr. Justin Hotard, Vice President and General Manager, NCR
- 21 Corporation, 2014)
- 22 • LNG & CNG Motor Fuel – A Technical Briefing from Industry (Mr. Doug Horne, President CVEF, Mr.
- 23 Zack Wester, Blu, Mr. Jeff Clarke, NGVA, 2014)
- 24 • Taximeter Technology Advancements (Mr. Matt Daus, International Association of Transportation
- 25 Regulators, 2013)
- 26 • Advanced Vehicles and Fuel Quality (Mr. John M Cabaniss, Jr., Association of Global Automakers, 2013)
- 27 • Economic Justification and Demonstrating Value of Weights and Measures (Mr. Tim Chesser, Arkansas
- 28 Bureau of Standards, 2012)
- 29 • Conducting Effective Marketplace Surveys and Investigations (Ms. Judy Cardin, Wisconsin Weights and
- 30 Measures, 2012)
- 31 • Public Relations and Customer Service as Regulators (Mr. Doug Deiman, Alaska Division of Measurement
- 32 Standards/CVE, 2012)

- 1 • An Overview of Unit Pricing in the United States (Mr. David Sefcik, NIST OWM, 2011)
- 2 • Grocery Unit Pricing in Australia (Mr. Ian Jarratt, Queensland Consumers Association, 2011)
- 3 • Grocery Unit Pricing in Canada (Mr. Ian Jarratt, Queensland Consumers Association, 2011)
- 4 • The U.S. Hydrogen Measuring System: The Turning Point? (Ms. Kristin Macey, California Division of
- 5 Measurement Standards, 2011)
- 6 • Corrosion in Ultra Low Sulfur Diesel Underground Storage Systems (Mr. Prentiss Searles and Ms. Lorri
- 7 Gainawi, American Petroleum Institute, 2010)
- 8 • Risk-Based Inspection Schemes (Mr. Henry Oppermann, Weights and Measures Consulting, LLC, 2010)
- 9 • Diesel Exhaust Fluid (DEF) (Mr. Gordon Johnson, Gilbarco, Inc., and Mr. Randy Moses, Wayne, 2009)
- 10 • Fuel Volatility and Ethanol Blending (Mr. Jim McGetrick, BP Products, 2009)
- 11 • Investigative Techniques (Mr. Michael Cleary, Retired, 2009)

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

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

17 **NCWM Meeting Comments:**

18 NCWM 2022 Interim Meeting: The 2022 Interim Meeting was held in an in-person and online hybrid meeting format.
 19 Mr. Ethan Bogren (Westchester Co., NY) gave a presentation on EDU-4. An overview of recommended topics for
 20 conference training was provided to members. Previous training topics were discussed and recommendations were
 21 solicited for future training topics.

22 No comments were received during the open hearings.

23
 24

25 NCWM 2022 Annual Meeting: Mr. Ethan Bogren (Westchester Co., NY) gave a presentation on EDU-4. An overview
 26 of recommended topics for conference training was provided to members. Previous training topics were discussed
 27 and recommendations were solicited for future training topics

28
 29 No comments were heard from the floor.
 30

31 **Regional Association Comments:**

32 WWMA 2021 Annual Meeting: During the 2021 WWMA Annual Meeting the following comments were received:
 33 David Aguayo, San Luis Obispo County, CA stressed the importance of continuous training, and encourages the
 34 Committee to provide additional training a opportunities in the regional and national standard setting process. He also
 35 encouraged development of training for regional committee members including incoming regional committee chairs.
 36 Cadence Matijevich, Nevada, commented that she was encouraged to hear Dr. Lippa’s update on regulation related to
 37 electrification, EV vehicle, its infrastructure and stressed that it will be very important as we move forward.

38
 39 Based on input collected from various standing committee members, the PDC believes there is a need for committee
 40 training that is held separate from and prior to the region’s annual meeting. The Committee recommends that the
 41 Western Weights and Measures Association Board of Directors consider developing a task group for the development
 42 of a WWMA committee member and leadership workshop prior to the 2022 WWMA Annual Meeting in Orange
 43 County, CA

44 SWMA 2021 Annual Meeting: Mr. Tim Chesser (AR) suggested regional committee training for members of the
 45 committees for all four regions. Mr. Steven Benjamin (NC) suggested all states consider following Louisiana’s
 46 reallocation/pay increase process based on NCWM exams.

47 NEWMA 2021 Interim Meeting: The committee heard comments from Mr. Jimmy Cassidy (MA) that several topics

1 are current and may impact NEWMA regions, stressing the certain growth of Electrical Vehicle Charging Equipment
 2 (EVCE) and issues with the sale of Cannabis. He supported these topics on both a national and regional basis and
 3 supports additional conversations that NEWMA can have to support regional training in these areas. Mr. Marc
 4 Paquette (VT) made comments also supporting EVCE and Cannabis as training topics on both a national and regional
 5 basis. He stated that VT is in the process of planning for the eventual testing and inspection of EVCE and is working
 6 through the legislative process for funding to purchase the testing equipment and additional staff. VT has made a
 7 significant investment in expanding the number of EVCS and will continue to do so. VT also hopes to provide
 8 consumer protection in regard to the sale of cannabis through inspections and package weighing of the product.
 9 CWMA 2021 Interim Meeting: Mr. Charles Stutesman (KS) suggested the topic of gravimetric testing for conference
 10 training as well as the topic of understanding fuel quality analysis.

CWMA Report: EDU-4
<p>Regional recommendation to NCWM on item status:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input checked="" type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Loren Minnich (KS) recommended precision scales as well as retail computing, medium capacity scales, large capacity scales, and point of sale systems for upcoming conference training topics. Mr. Minnich mentioned that NIST will continue some trainings as web based. He also indicated he would like to see some trainings done outside of meetings. Such trainings could rotate through the central states to help with training inspectors within the central region.</p> <p>Doug Rathbun (IL) stated Illinois will be having a “fuel school” in mid-October to provide inspectors with a deeper and broader knowledge of the fuel industry. There will be approximately 60 spots for the two-day school. The trainers for the training include Christy Moore, Scott Fenwick, Russ Lewis, and other industry experts.</p> <p>Ivan Hankins (IA) mentioned there is a field training manual for inspectors, which includes sections from Handbook 130 Uniform Weights & Measures Law and Uniform fuel and Automotive and Lubricants. Regulations ; Handbook 44 LMD code, General Code, and Fundamental considerations. The manual explains how to do the inspections, general code, in order to be consistent with other inspectors within each state. Mr. Hankins would like to see a training on Retail Motor Fuel Dispensers utilizing the manual. Doug Rathbun (IL) expressed concern that some experienced inspectors may not be interested in attending such a training. Mr. Rathbun would like to have some trainings for those more experienced inspectors.</p> <p>Bob Murnane (Seraphin) suggested extending conference week and have training at either the front or the end of the conference meetings. Michael Keilty (Endress + Hauser) echoed Mr. Murnane’s comments. He mentioned the Western conference adds a day specifically for training sandwiched within the conference. The schedule then allows the committee to hold their work sessions during the day on the second day, which relieves some of the burden on the committee members.</p> <p>Doug Musick (KS) stated we have relied on NIST for so long for trainings and suggested we should start leaning on more trainings within our region. He commented there may be some industry interest in supporting training</p>

using funds from the associate membership fund.

Chris Guay (CGGC) provided that NCWM doesn't know what an individual state's interests are and who the stake holders are for each state. Mr. Guay suggested state directors should think about what trainings would be important for their programs and send those suggestions to our NCWM representative, Loren Minnich.

Brenda Geist (KS) stated as an experienced inspector she would appreciate trainings on new technology and updated methods.

1

2 Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to
 3 www.ncwm.com/publication-15 to review these documents.

4 **PMT – PROGRAM MANAGEMENT**

5 **PMT-1 I Safety Awareness**

6 One of the goals of the PDC is to educate jurisdictions on safety issues and to provide resources to help them
 7 implement effective safety and health management programs. The Committee intends to use the safety page at
 8 www.ncwm.com/safety as a place for states to share information and resources to help them address each of the
 9 major steps in creating and maintaining an effective safety program.

10 In July 2017, the Board of Directors created the Safety Task Group to create a safety tool kit to help weights and
 11 measures organizations create or improve their own safety programs. The toolkit is complete and is posted on the
 12 NCWM website at www.ncwm.com/safety.

13 At the 2018 Annual Meeting, the NCWM BOD decided to make the task group a permanent subcommittee associated
 14 with the PDC. The newly formed Safety Subcommittee will assume responsibility for:

- 15 • Maintaining and updating the safety toolkit.
- 16 • Writing and deploying the NCWM annual safety survey, as well as reporting on the results each year.
- 17 • Finding resources and/or developing weights-and-measures-focused materials relating to the top hazards
 18 identified through the safety survey or through developing the toolkit.
- 19 • Building a safety culture and developing safety leadership within the NCWM through participation on the
 20 Safety Subcommittee

21 The Safety Subcommittee is currently working to improve the annual safety survey by:

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

26 The Committee expresses appreciation to the members of the Safety Subcommittee for their willingness to volunteer
 27 for this important work.

Safety Subcommittee Members		
Chair	John Bell	Missouri
Public Sector	Jason Flint	New Jersey
Public Sector	Mike Sikula	New York
Private Sector	Tisha Arriaga	Marathon Petroleum, LLC
Private Sector	Bill Callaway	Crompco

Private Sector	Remy Cano	Northwest Tank & Environmental Services
Private Sector	Robert LaGasse	Mulch and Soil Council

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

2 **Regional Safety Liaisons:**

3 **Central Weights and Measures Association (CWMA)**

4 Mr. John Bell, Missouri Department of Agriculture

5 **Northeastern Weights and Measures Association (NEWMA)**

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

7 **Southern Weights and Measures Association (SWMA)**

8 Robert Huff, Delaware Department of Agriculture

9 **Western Weights and Measures Association (WWMA)**

10 Mr. Remy Cano, Northwest Tank & Environmental Services

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

Safety Article Schedule		
Issue 1 (February 2021)	CWMA	January 15, 2021
Issue 2 (May 2021)	NEWMA	April 15, 2021
Issue 3 (September 2021)	SWMA	August 13, 2021
Issue 1 (February 2022)	WWMA	January 15, 2022

12 The Committee would like to thank the following individuals for their contributions since the 2020 Annual Meeting:

- 13 • *The Psychology of Safety* – Mr. Ron Armstrong (NWTES)
- 14 • *Back to Your Health* – Ms. Elizabeth Koncki (MD)
- 15 • *Engineering Controls* – Mr. Mike Sikula (NY)
- 16 • *Avoid Hostile Encounters in the Field* – Mr. Mike Sikula (NY)
- 17 • *Who’s Got Your Back?* – Mr. Ron Armstrong (NWTES)
- 18 • *Cannabis Facility Safety Awareness* – Mr. John Bell (MO)

19 **NCWM Meeting Comments:**

20 NCWM 2022 Interim Meeting: The 2022 Interim Meeting was held in an in-person and online hybrid meeting format.
 21 Subcommittee Chair, Mr. John Bell (MO) briefed the members on activities of the Safety subcommittee. The
 22 Subcommittee may meet between the annual and interim meetings to discuss issue and topics relating to safety. Mr.
 23 Bell stated the Annual Safety Awareness survey is being revised and will be sent out to state directors once finalized.
 24 Once comments are received, these will be consolidated for presentation at the 2022 Annual Meeting. A similar
 25 survey may be developed and sent to industry giving them an opportunity to share their concerns anonymously. Mr.
 26 Bell requested for himself or any member of the subcommittee to be contacted with any information, which may be
 27 added to the webpage. Mr. Bell encouraged everyone to read the safety articles published on the NCWM website.

28 No comments were heard during the open hearing.

29

30 NCWM 2022 Annual Meeting: Mr. David Fraser (Montana) provided a presentation on behalf of the Safety
 31 Subcommittee. The presentation reviewed the replies submitted in response to the NCWM Safety Survey sent out
 32 January 2022. The survey received 47 responses from OWM Officials.

33 Ivan Hankins (Iowa) commented on the exceptional quality of work done by the Safety Subcommittee. Jim Willis

1 (New York) echoed the sentiment provided by Mr. Hankins. Mr. Willis noted that more scrutiny was put on the safety
 2 aspect of equipment being certified at the state’s metrology lab, particularly with VTM provers. The lab staff was able
 3 to document flaws in equipment once scrutinized. It was noted that this aided municipalities in the justification to
 4 replace aging equipment. Cheryl Ayer (New Hampshire) noted that financial support from the state is often not easily
 5 obtained for investments in safety.

6
 7 **Regional Association Comments:**

8 WWMA 2021 Annual Meeting: During the 2021 WWMA Annual Meeting the following comments were received:
 9 David Aguayo, San Luis Obispo County, CA stressed the importance of safety and safety training and urged
 10 continuation of development of safety standards as new technologies such as electrification are implemented
 11 throughout the region and the country. Mr. Ivan Hankins, NCWM Chair, commented that Mr. Johnny Bell, MO has
 12 been appointed as the NCWM Safety Subcommittee Chair and stressed the importance of safety in the workplace.

13
 14 The Committee supports the continuation of the Safety Subcommittee and looks forward to future work with the new
 15 chairperson Mr. Bell.

16 SWMA 2021 Annual Meeting: Chairman, Paul Floyd (LA), requested a volunteer for the safety subcommittee from
 17 SWMA. Mr. Robert Huff (DE) has volunteered to take on that role.

18 NEWMA 2021 Interim Meeting: The committee chair expressed gratitude to the regional safety liaison Mike Sikula
 19 for his contributions to NCWM. The committee heard comments from Mr. Jimmy Cassidy (MA) encouraging the
 20 safety subcommittee to address safety concerns in the area of Cannabis. He stated questions and gave feedback
 21 including if respirators should be used by inspectors and what the risk of contamination may be with cross
 22 contamination especially as it relates to inspectors who may hold a Commercial Drivers Licenses. He stressed the
 23 importance of ensuring that inspectors can do this work in a safe manner.

24 CWMA 2021 Interim Meeting: Committee Chair, Ms. Elizabeth Lambert (MO), provided comment that Mr. John
 25 Bell (MO) has been appointed the position of Safety Subcommittee Chair. Mr. John Bell (MO) commented that
 26 members have the ability to refer to safety page on the NCWM website. He mentioned job site analysis forms are
 27 available from either himself or Don Onwiler (NCWM). Mr. Bell noted Missouri’s Office of Administration is
 28 developing safety training for their state employees and is asking for material that may be beneficial to share. He also
 29 indicated that there is still a vacancy for the SWMA safety liaison position.

CWMA Report: PMT-1
Regional recommendation to NCWM on item status:
<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>
Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i>
Elizabeth Lambert (MO) read a text message comment from Johnny Bell, Safety Liaison. Although he is currently at NIST campus for training, he hopes to attend the 2023 CWMA Annual Meeting. He would like for anyone with safety concerns they would like disseminated to other states and anyone with ideas for articles for the newsletter to contact him.

1
2 Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to
3 www.ncwm.com/publication-15 to review these documents.

4 **PMT-2 I Skimmer Education Task Group**

5 This is a new agenda item added to the report by the PDC after the Publication 15 printing deadline.

6 The Skimmer Education Task Group (SETG) held its first meeting during the 2021 Annual Meeting. The SETG is
7 made up of industry members, regulatory officials, and interested parties for the purpose of continuing work identified
8 by the S&T Committee’s Credit Card Skimmer Task Group. Under the guidance of the Professional Development
9 Committee (PDC), the task group will develop education and outreach strategies and gather or produce materials to
10 educate regulatory officials, fuel retailers, industry members and consumers on payment card information theft via
11 skimming devices. The SETG will provide information and organize education sessions to share recommendations
12 for safety procedures and technologies to better protect consumer payment information and reduce the risk of skimmer
13 installation at fuel dispensers. The SETG will continue in force until the task group Chair and the PDC Chair agree
14 the work has been completed. The task group may also be disbanded by vote of the NCWM Board of Directors. The
15 task group will meet via electronic media, teleconferences, face-to-face meetings, or other means available.

16 Co-Chair, Ms. Paige Anderson (NACS) provided a report of their meeting held on January 10, 2021 during the open
17 hearing. Following is a summary of her remarks.

18 The SETG expressed their appreciation for the leadership and assistance of Mr. Hal Prince (FL), the NCWM board
19 and staff, Mr. David Aguayo (San Luis Obispo Co., CA) and the PDC in helping to create the Task Group. Many of
20 the Task Group members worked on the policy item before the Specifications and Tolerances (S&T) Committee to
21 establish user requirements on fuel dispensers to prevent skimming, and during that time recognized the importance
22 of education and training.

23 The SETG’s mission to educate the membership and bring together all stakeholders in sharing information on
24 skimming. The SETG recognizes that technology changes include the devices used to steal debit and credit card
25 information, the technology to prevent these thefts, and the criminals become more organized and sophisticated.
26 NCWM provides a powerful platform to bring together all stakeholders – state officials, law enforcement,
27 manufacturers, service companies, retailers, security providers and consumers.

28 In organizing the SETG, it was decided that having co-chairs representing both regulatory officials and the private
29 sector demonstrates partnership in combatting skimming and the criminal organizations.

30 The SETG held their first meeting on Sunday, January 10th, 2021 via web conference. The number of attendees who
31 attended the meeting was remarkable. It clearly demonstrated that there is a significant need for knowledge on this
32 issue. The SETG discussed and finalized their 2021 goals. The two goals are to:

- 33 1. Establish a library of resources for the public on the NCWM website. The resources will consist of videos,
34 articles, reports, checklists, contact information, best practices, and other information. The SETG recognized
35 that there may be some sensitive or proprietary data that should not be put on the public-facing website but
36 may be shared with the membership or a targeted group of the membership. Alternative distribution methods
37 would be determined and used in these cases. Communicating the availability and location of these resources
38 to the membership and beyond is an important element of the strategy and project.
- 39 2. Host presentations and briefings from subject matter experts at future NCWM meetings. The SETG is
40 planning to provide such a briefing at the Annual meeting in July 2021. The SETG is looking at 3 key
41 constituencies to provide presentations:
 - 42 o Law enforcement - overview of the landscape of activity on skimming (e.g., U.S. Secret Service)
 - 43 o Private sector security experts - to share what they are seeing and describe the types of technology
44 being used by the criminals and methods used to combat skimming
 - 45 o Retail/industry - updates on the transition to EMV card readers, etc.

1 The SETG is also working to identify other key stakeholders to either present or to join the SETG. These key
 2 stakeholders included financial institutions such as banks, credit card providers, and credit unions.

3 The SETG welcomes volunteers and encourages participation from all members. If you or your staff are interested,
 4 contact Ms. Paige Anderson (NACS), Mr. John McGuire (NJ), members of the PDC, or the NCWM staff.

Skimmer Education Task Group Members		
Co-Chair	Paige Anderson	NACS
Co-Chair	John McGuire	New Jersey
Public Sector	Bobby Fletcher	Louisiana
Public Sector	John Larkin	California
Public Sector	Mike Harrington	Iowa
Public Sector	Vince Wolpert	Arizona
Public Sector	Scott Borse	PEI
Public Sector	Owen Dewitt	FlintLoc Technologies, LLC
Public Sector	Brent Price	Gilbarco, Inc.
Public Sector	Mike Roach	Invenco Payment Systems
Public Sector	Scott Schober	Berkley Varitronics Systems

5 **NCWM Meeting Comments:**

6 NCWM 2022 Interim Meeting: The 2022 Interim Meeting was held in an in-person and online hybrid meeting format.
 7 Co-Chair of the SETG, Mr. John McGuire (NJ) reported the SETG continues to educate, promote awareness and share
 8 information regarding payment card skimming and theft. To accomplish this, the Skimming Education Task Group
 9 has focused on inviting subject matter experts to provide informative presentations and discussions on payment card
 10 security, creating a library of resources to help reduce the threat of payment card skimming and other forms of payment
 11 card theft and creating a template or standard form to capturing key information on skimming incidents. The SETG
 12 has identified a potential speaker specializing in security for either the annual meeting in July 2022 or the interim
 13 meeting next January.

14
 15 No comments were heard during the open hearing.

16
 17 NCWM 2022 Annual Meeting: During the 2022 Annual Meeting open hearings an update was provided by Mr. John
 18 McGuire (NJ), co-chair of the Skimmer Education Task Group. Mr. McGuire presented a Credit Card Skimmer
 19 Inspection Report PDF form developed by the SETG.

20
 21 No comments were heard from the floor.

22
 23 WWMA 2021 Annual Meeting: During the 2021 WWMA Annual Meeting the following comments were received:
 24 David Aguayo, San Luis Obispo County, CA commented this task group has determined next steps to consolidate best
 25 practices in oversight and sharing of information. Because of the variation in the ongoing development of this item in
 26 different parts of the country, it is important to share developing information across regions.

27 The Committee supports the continuation of this task group and looks forward to learning more from its future work
 28 on its two goals established during the 2021 NCWM Annual meeting; 1) the establishment of a resource library on
 29 skimmers, and 2) training and informational sessions from subject matter experts during subsequent meetings
 30 throughout the year

31 SWMA 2021 Annual Meeting: Dr. Bobby Fletcher (LA) gave a report from the skimmer education task group stating
 32 the subcommittee was compiling information on credit card skimmers.

33 NEWMA 2021 Interim Meeting: Mr. John McGuire (NJ) co-chair of the Skimmer Education Task Group (SETG)
 34 gave an update on the groups progress. The SETG met for the second time at the Annual NCWM in Rochester, NY
 35 (July 18-21, 2021), the group is in its starting phase. The SETG has outlined goals and will be seeking to use the PDC

1 as an ongoing platform for the group. The SETG will be proposing to use the Resource Tab, located on the NCWM
 2 website, as a repository for Skimmer information. Items that can be posted on the Resource Tab include videos linked
 3 to YouTube that can be used to educate regulators to assist in identifying skimmers and the equipment used in detecting
 4 them. Additional goals of the SETG include developing a reporting process for jurisdictions to disseminate the
 5 information using a nationwide Alert Tab when detecting a skimmer. The Resource Tab can be part of this process
 6 to assist in providing related information including pictures and descriptions such as if a chip or thumb drive may have
 7 been used. The SETG currently plans on having these goals formalized in time for the interim NCWM meeting in
 8 January 2022 where they plan on utilizing the PDC platform at open hearings to educate and update attendees. Mr.
 9 Jimmy Cassidy (MA) commented on the importance of the work of the SETG and noted significant interest for the
 10 Skimmer Alert System proposal. He encouraged support for the Skimmer Alert System and for related funding that
 11 might be needed for this initiative.

12 CWMA 2021 Interim Meeting: Mr. Mike Harrington (IA), member of the SETG, provided an update indicating that
 13 during the NCWM 2021 Annual Meeting John McGuire (NJ), co-chair of task force group, mentioned the possibility
 14 of having a presentation on skimmers at the NCWM Interim Meeting. Mr. Harrington commented that Shazam, a
 15 network of ATMs has provided presentations and trainings in Iowa and is very knowledgeable in this area and they
 16 may be available to present information at the next NCWM meeting. Charlie Stutesman (KS) suggested members
 17 could reach out to Hal Prince (FL) for training opportunities as Florida has become a great resource for skimmer
 18 education.

CWMA Report: PMT-2
<p>Regional recommendation to NCWM on item status:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input checked="" type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Mike Harrington (IA), member of the SETG, provided there have been no additional updates from the task group since the NCWM Annual meeting in July.</p>

19

20 Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to
 21 www.ncwm.com/publication-15 to review these documents.

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- 1 Mrs. Brenda Geist, Kansas | Chair
- 2 Mr. Brian Fuller, Iowa | Member
- 3 Mr. Greg VanderPlaats, Minnesota | Member
- 4 Mr. Konrad Crockford, North Dakota | Member
- 5 Mr. Ryan Rodgers, Hoidale Company | AMC Representative
- 6 Mr. Scott Ferguson, Michigan | AMC Representative
- 7 **CWMA Professional Development Committee**

Appendix A

Summary of NIST OWM Training Conducted in 2021 (PDC Agenda Item EDU-2)

Summary of NIST OWM Training Conducted in 2021			
Area/Course Name	Start Date	Location	No. of Students
Laboratory Metrology			
Fundamentals of Metrology & LAP Problems Preparation	1/12/21 & 5/11/21	Web-based	6
Regional Measurement Assurance Programs			
MidMAP	10/24/21	Web-based	25
NEMAP	08/02/21	Web-based	21
SEMAP	03/22/21	Web-based	32
SWAP	08/30/21	Web-based	25
WRAP	05/03/21	Web-based	22
Webinars			
Basic Uncertainty Concepts	05/20/21	Web-based	8
Contract Review	03/11/21	Web-based	8
Contract Review	07/29/21	Web-based	5
Document Control and Record Keeping	03/04/21	Web-based	10
Document Control and Record Keeping	07/22/21	Web-based	6
Info Hour – Assessing Field Standards for Calibration & Use (3 sessions: 6/22/21; 9/21/21; & 11/9/21)	06/22/21	Web-based	172
Software Verification & Validation	06/10/21	Web-based	9
State Laboratory Annual Submission Process	07/01/21	Web-based	58
Laws and Metric Program			
Packaging & Price Verification			
Handbook 130 – Examination Procedure for Price Verification <i>5 Sessions:</i> 1/21/2021; 2/16/2021; 4/14/2021; 7/14/2021; 10/1/2021	5 Sessions Jan to Oct 2021	Web-based	Total 178
Handbook 130 – Overview of the Uniform Packaging and Labeling Regulation <i>4 Sessions:</i> 2/17/2021; 4/15/2021; 7/15/2021; 10/7/2021	4 Sessions Feb to Oct 2021	Web-based	Total 156
Handbook 133 – How to Test Animal Bedding <i>4 Sessions:</i> 2/24/2021; 4/28/2021; 7/13/2021; 10/20/2021	4 Sessions Feb to Oct 2021	Web-based	Total 71
Handbook 133 – Overview of Handbook 133 <i>5 Sessions:</i> 2/18/2021; 4/19/2021; 7/27/2021; 8/26/2021; 10/14/2021	5 Sessions Feb to Oct 2021	Web-based	195
Weights and Measures Inspections – Evidence, Search and Seizure, and Due Process <i>5 Sessions:</i> 1/26/2021; 2/23/2021; 4/22/2021; 7/1/2021; 10/26/2021	5 Sessions Jan to Oct 2021	Web-based	Total 183
LPG (Propane) -Verifying the Net Contents of 20 lb Cylinders (Part 1) - NEW <i>4 Sessions:</i> 6/30/2021; 7/26/2021; 8/24/2021; 10/21/2021	4 Sessions Jun to Oct 2021	Web-based	Total 338
Metric Education			
Info Session – Metric Education Resources	05/22/21	Web-based	5

CWMA PDC 2022 Interim Meeting Agenda
 Appendix A – Summary of NIST OWM Training Conducted in 2021

	09/11/21	Web-based	4
	09/29/21	Web-based	6
Info Session – Metric Estimation	08/14/21	Web-based	6
	09/15/21	Web-based	3
Measurement System Basics – SI and US Customary Units for Regulatory Officials	08/26/21	Webinar	23
Legal Metrology Devices			
No training seminars were offered in 2021.	--	--	--

Appendix B

NIST OWM Training: Future Plans – Updated Information (PDC Agenda Item EDU-2)

No current commitments to in-person training for 2021

- All in person field inspection classes postponed until further notice

Training in FY 2022

- Travel restrictions may lift later this summer
- Continuing to assess as the situation unfolds
 - Local pandemic restrictions
 - Travel restrictions for training staff and students
- Unclear how pandemic related restrictions will affect NIST OWM’s future in-person training for all programs
 - Impact of social distancing requirements on classroom size, configuration, and ability to present to groups of students
- Lab Metrology Program closely watching NIST OWM policies regarding hosting events in-person

Training Going Forward

- Will continue to offer virtual training
- Plan to expand available virtual training topics
- Experimenting with available technology and tools to best incorporate elements of “hands on” in-field inspection training

Virtual Training Space

- Significant progress on outfitting a virtual training space at NIST for OWM’s use in delivering virtual training
 - Small group within OWM has been working with their NIST staff to plan this effort
 - Space has been allocated and equipment purchases are in progress
 - Significant support from the Physical Measurement Laboratory (OWM’s larger operating unit)
 - Looking forward to beginning work on this space

OWM Trainers

- Participating in a variety of training courses as part of their professional development
 - Virtual training design, development, and delivery

Considering Development of Hybrid Courses

- For uses during and after pandemic
- Virtual sessions coupled with hands-on sessions using virtual technology and/or local on-site trainers to help facilitate

See OWM Calendar of Events for Upcoming Training

- www.nist.gov/newsevents/upcomingevents/org/6436
- Note: A series of three new webinars planned on the topic of LPG Cylinder Refilling
 - LPG (Propane) – Verifying the Net Contents of 20 lb Cylinders (Part 1)” already in progress with several upcoming sessions