

Professional Development Committee (PDC) 2024 Interim Meeting Report

Mr. Ethan Bogren, Committee Chair
Westchester County, New York

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
Table of Contents**

Reference Key	Title of Item	PDC Page
EDU – EDUCATION		351
EDU-1 I	Professional Certification Program	351
EDU-2 I	Training	355
EDU-3 I	Instructor Improvement.....	360
EDU-4 I	Recommended Topics for Conference Training.....	361
PMT – PROGRAM MANAGEMENT		363
PMT-1 I	Safety Awareness	363
PMT-2 I	Skimmer Education Task Group	365

Appendices

A	EDU-2: Summary of NIST OWM Training Conducted in 2019.....	A369
B	EDU-2: NIST OWM Training - Future Plans	B371

**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 eleven 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, Basic Package Checking,
6 Package and Labeling, and Method of Sale. The competency exams include Basic Weighing Devices and Basic
7 Liquid-Measuring Devices. Professional certifications must be renewed every five years and NCWM notifies
8 candidates whose certificates have expired.

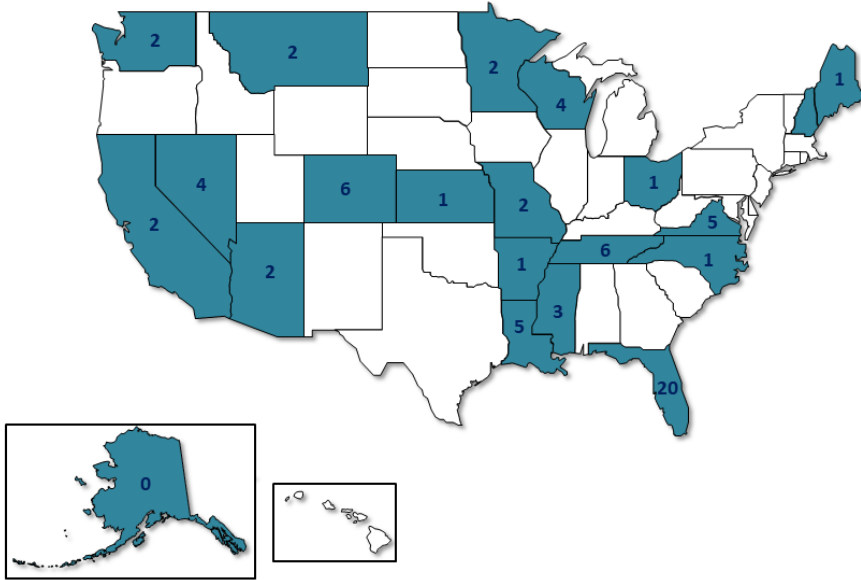
9 Proctoring of exams was initiated in August 2018 and may be done virtually or in-person. Virtual proctoring was
10 initiated in May 2021 and is offered at no cost to members. Guidance for virtual proctoring can be found on the same
11 webpage and more detailed information, including a helpful YouTube video on preparing for proctoring can be found
12 on the ProctorU website at <https://support.proctoru.com/hc/en-us/articles/360043565051-Exam-Day-What-to-Expect->
13 [Expect-](https://support.proctoru.com/hc/en-us/articles/360043565051-Exam-Day-What-to-Expect-). In person proctoring is available through the state programs. The policy was changed in August 2023 to
14 allow individuals within a program to proctor exams. The individual and their director must sign an agreement
15 provided by NCWM and the NCWM Executive Director must approve the proctor.

16 **Number of States with Proctors and number of Proctors.** (As of November 2023)

	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
FY 21-22	19	44	20	78
FY 22-23	20	61	19	65

1

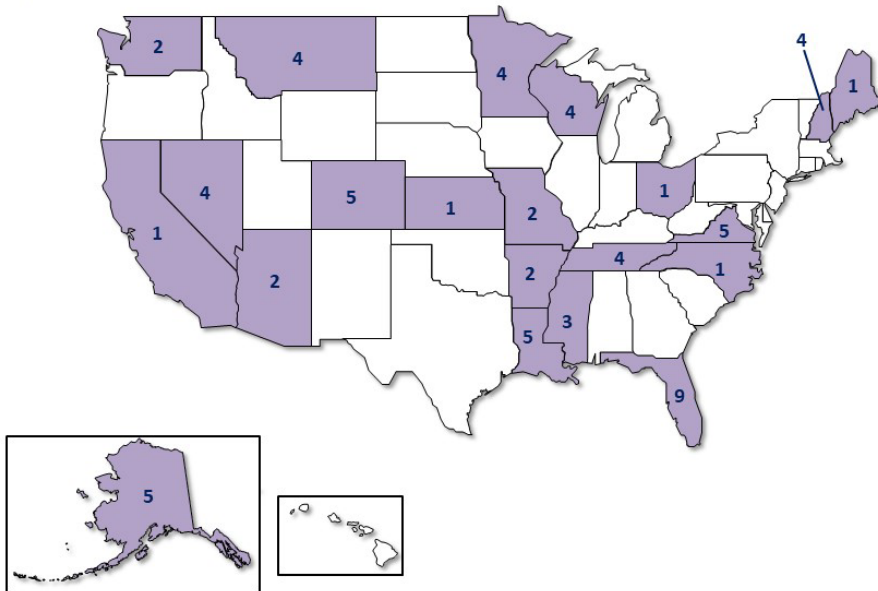
Distribution of Certified Proctors per State: Basic Competency Exams
Updated: November 2022



2
3

The map below shows the number and location of proctors under the revised policy.

Distribution of Certified Proctors per State Under the New Policy: Basic and Professional Certification Exams
Updated: November 2023



4
5

1 The table below shows the number of virtual and in-person proctored tests completed in FY 22-23.

	In-person	Virtual
Professional Certification	78	2
Basic Competency Certification	46	5

3
4 **Status of Current Tests**

5 The NCWM has issued 1348 professional certificates since program inception through September 30, 2023. Of the
6 certificates issued, fifteen have been issued to individuals in the private sector. There has been a significant decline
7 in participation in the program. It appears that the decline coincides with the requirement to proctor exams and the
8 pandemic. Some of the certificates have reached their 5-year expiration and certificate holders will need to seek
9 recertification.

10
11 **NCWM Professional Certificates**

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

	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Certificates Awarded	62	198	140	142	257	53	56	60	56	80
Cumulative	305	503	643	785	1042	1095	1151	1211	1267	1347

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

State	Certificates	State	Certificates	State	Certificates
Louisiana	164	Nevada	28	Wyoming	7
Minnesota	153	Maine	27	Delaware	4
Missouri	143	New Mexico	25	Michigan	3
Wisconsin	96	New York	19	Montana	3
Maryland	79	Colorado	18	South Dakota	3
Virginia	78	Connecticut	15	Oregon	2
Alaska	59	Private	15	Tennessee	2

Mississippi	56	Ohio	14	New Hampshire	1
North Carolina	56	Indiana	13	West Virginia	1
Washington	50	Idaho	11		
Kansas	46	Massachusetts	11		
California	41	Arkansas	8		
Nebraska	33	Pennsylvania	8		
Arizona	28	Vermont	8		

1

2 **NCWM Basic Competency Certificates**

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

	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	Cumulative
Basic - Measuring	0	40	14	5	7	3	69
Basic - Weighing	1	30	11	12	9	2	65
Total Awarded	1	70	25	17	16	5	134

4

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

State	Certificates	State	Certificates
Louisiana	60	Nevada	2
Tennessee	42	Nebraska	2
Alaska	7	Arkansas	1
Colorado	5	Kansas	1
Private	5	Montana	1
Florida	3		

7

8 **NCWM Meeting Comments:**

9 NCWM 2024 Interim Meeting: An update was provided by Certification Coordinator Jerry Buendel (Retired). Mr.
10 Buendel reported on the Professional Certification Exams and emphasized the Registered Service Agent testing
11 program progress. Don Onwiler (NCWM) commended Mr. Buendel on his presentation. Mr. Onwiler commented on
12 the availability of virtual proctoring. Mr. Onwiler noted that virtual proctoring for professional certification is free of
13 cost to members, with NCWM covering the costs. Registered Service Agents will incur a cost of \$20.00 for this
14 service. Mr. Onwiler stated that he had taken the HB 44 exam, was impressed, and felt it should be mandatory for all
15 RSA's. Tim Chesser (Arkansas) agrees that the exam is great but commented that RSAs did express concerns over
16 exam costs. Paul Floyd (LA) discussed possibly modifying the older exams or consider modifying the RSA HB 44
17 exam for regulators. Cheryl Ayer (NH) expressed her appreciation for the work of the committee. Ms. Ayer
18 commented on the importance of the HB 44 exam and suggested the exam be provided free of cost. Ms. Ayer also

1 commented on how beneficial it was to participate in the development of exams. Greg VanderPlaats (Minnesota)
 2 expressed his appreciation for publishing the Minnesota state exam on the NCWM website making it available to
 3 RSAs. Mr. VanderPlaats also inquired about allowing states to provide virtual proctoring. Scott Simmons (CO)
 4 commented that he felt the time limits on certain exam sections do not allow sufficient time to complete and are
 5 prohibitive. Matt Douglas (CA) agreed with Mr. Simmons comments regarding time limits pertaining to certain
 6 sections of the exams.

7 **Regional Association Comments:**

8 CWMA 2023 Interim Meeting: Greg VanderPlaats, Minnesota, Proctoring policy for professional certification exams
 9 has changed and is posted on NCWM website. Now allowing Proctors within the program as long as there is no
 10 conflict of interest. Mike Harrington, Iowa. Iowa is happy with the changes to the policy and their program will now
 11 be participating. Greg Vanderplaats, Minnesota, Jerry Buendel working to use the state specific exams for RSA testing.
 12 RSA tests for HB 44, RFMD, Retail Scales are written and in testing.

13 The committee recommends this as an Informational Item.

14 WWMA 2023 Annual Meeting: Mahesh Albuquerque (Division of Oil and Public Safety, CO) – Proctor
 15 recommendation was approved by NCWM BOD and implemented. Don Onwiler has sent an email about agency
 16 proctors to all states. The WWMA PDC applauds this change.

17 The committee recommends this as an informational item.

18 SWMA 2023 Annual Meeting: The PDC heard no comments on this item and recommends the item remain an
 19 informational item.

20 NEWMA 2023 Interim Meeting: During the 2023 NEWMA Interim meeting an update was provided by Marc
 21 Paquette (Vermont). During the update changes in proctoring requirements and RSA Exams were discussed. Cheryl
 22 Ayer (New Hampshire) expressed her appreciation for the revamp on proctoring requirements.

23 The committee recommends this as an informational item.

24 **EDU-2 I Training**

25 The purpose of this item is to share best practices and approaches to training in response to the broad training needs
 26 of weights and measures jurisdictions and to serve as a link to various training materials on the web. NIST OWM
 27 PDC Liaison, Tina Butcher (NIST OWM), has regularly provided updates to the Committee on OWM's training
 28 resources and activities. Details of these updates can be found in prior Committee reports.

29 In preparation for the 2024 Interim Meeting, Mrs. Butcher shared a presentation with the Committee summarizing
 30 NIST training activities in 2023 and highlighting plans for OWM training in 2024 and other work underway at NIST
 31 to assist weights and measures jurisdictions and industry representatives with legal metrology training.

32 Details of training conducted by OWM in 2023 are included in Appendix A to this report. The following summarizes
 33 training-related activities in each NIST OWM Program along with an update on some of OWM's general work in
 34 developing and providing legal metrology training.

35 **Laboratory Metrology and Metric Program (LMP)**

36 The following summarizes activities in the NIST OWM LMP:

37 **General.** The Laboratory Metrology Program training classes conducted in 2023 included both virtual and in-person
 38 formats, with a total of 19 sessions and 276 students.

1 ***In-Person Laboratory Metrology Training.*** The NIST Laboratory Metrology Program (LMP) has resumed its in-
2 person classes at the NIST campus in Gaithersburg, MD. Class sizes are now back to the same level as before the
3 COVID-19 pandemic, with a maximum of 12 students per class.

4 LMP is still catching up on the backlog of requests from state laboratories that accumulated during the pandemic.
5 Thus, priority is being given to state laboratory staff students.

6 ***Regional Metrology Association Training.*** As was the case in 2023, Regional Measurement Assurance Program
7 (RMAP) training will continue to be offered in an in-person format in each region in 2024.

8 ***NIST Handbook 143, State Weights and Measures Laboratories Program Handbook.*** An updated version of NIST
9 HB 143 was published in December 2023. The updates clarify requirements and align the criteria with the National
10 Voluntary Laboratory Program (NVLAP) NIST Handbook 150-2's technical requirements

11 ***Proficiency Testing Standards – Updates.*** LMP is updating standard documents associated with laboratory
12 proficiency testing. The updates are intended to better align the proficiency testing documents and associated criteria
13 with the 2018 edition of NIST IR 7082 and the 2005 edition of NIST IR 7214. The updates better align the standards
14 with the newly released 2023 edition of ISO/IEC 17043.

15 At the request of some OWM stakeholders, the comment period on the draft updates has been extended to the end of
16 February 2024. Drafts of the new test documents are posted for review on OWM's website at the link shown in this
17 slide.

18 For those interested in submitting comments, please do so at the following site before the end of February

19 <https://www.nist.gov/pml/owm/laboratory-metrology/proficiency-testing>

20 The target date for publication of the revised standards is late fall 2024.

21 ***Fundamentals of Metrology (FOM) Course:*** OWM's Laboratory Metrology Program (LMP) has begun work on
22 creating an online version of one of its most popular training courses, "Fundamentals of Metrology."

23 During the COVID-19 pandemic, LMP experimented with hybrid classes in which some students were participating
24 virtually and some were participating on-site. A key element missing from these hybrid classes was the virtual
25 student's ability to fully engage in any hands-on activities during the class. Thus, although this new FOM course will
26 be presented virtually, it will have a "hands-on" component for the virtual student.

27 The LMP staff are creating a "Lab-in-a-Box" kit that includes equipment needed for a student to complete hands-on
28 activities during the class. A Lab-in-a-Box kit will be shipped to each student before the class and shipped back to
29 NIST following the class. Each student will have all the equipment needed to apply the hands-on activities during the
30 class. The equipment included in the box will mirror that used in classes conducted at NIST so the online student's
31 experience will mirror that of a student participating on-site.

32 OWM will continue offering on-site sessions of FOM but hopes this option will extend the opportunity for students
33 who are not able to attend on-site sessions to participate in FOM classes. Additional benefits are that this reduces
34 travel and time costs associated with students participating in on-site classes. NIST will be charging a nominal fee to
35 cover the costs of shipping and equipment, which should be offset by the savings associated with travel.

36 The target time frame for the first virtual FOM session is in early 2025, so be sure to stay tuned for news on this
37 development!

38 ***Information Hours – Laboratory Metrology Applications.*** In past years, the LMP has hosted "Information Hours"
39 targeted toward state laboratory programs. These have typically followed on-site class sessions and/or included topics
40 oriented toward assisting state metrology laboratories in implementing and managing their laboratory programs.

1 LMP plans to resume these sessions in 2024. As in the past, these are targeted toward laboratory programs and their
2 availability will be announced in the list of upcoming training provided to the state labs.

3 ***Metric Program.*** The Metric Program, which is now located in the Laboratory Metrology Program, conducted five
4 webinars and web-based sessions in 2023. This training covered three different topic areas presented in four sessions
5 and included 42 students.

6 **National Legal Metrology Program (NLMP)**

7 ***General.*** The development and delivery of field inspection training in the areas of laws and regulations and legal
8 metrology devices have slowed due to staff shortages and an increased workload for the technical staff. However,
9 OWM is beginning to resume work on some of the projects already in progress and to develop more training products
10 and services moving forward. An overview of training and training resources presented and under development is
11 shown below.

12 ***Webinars.*** The NLMP Program conducted 13 webinars on topics related to “Laws and Regulations” in 2023, this
13 included 6 different topic areas as outlined in the tables above, with 13 sessions and 699 students. These courses were
14 offered on a frequency based on the level of demand, but no less than once per quarter during the year.

15 ***Retail Motor-Fuel Dispensers Blended Course.*** In July 2023, OWM reported the development of its first “blended”
16 training course. This “blended” training course consists of both virtual sessions and in-person sessions, with all
17 students participating in the same format for a given segment of the course.

18 The first field inspection course selected for this is “Retail Motor-Fuel Dispensers.” The course is divided into
19 approximately 8 segments. In addition to virtual sessions, the design of this course includes a final segment to be
20 conducted as in an in-person session that will include a written exam and “hands-on” assessments of individual
21 learners at a retail gasoline station. This design will develop a group of regional trainers to assist in regularly
22 conducting the hands-on sessions.

23 Two virtual segments have been completed and were presented in July 2023 as pilot sessions to a group of volunteers
24 and NIST staff. Three webinars were presented with a total of 22 participants. Additional segments are under
25 development for presentation in 2024.

26 OWM extends a sincere “thank you” to the State of Louisiana’s weights and measures program and its staff for
27 participating in and providing valuable feedback during these sessions and for agreeing to assist with other segments
28 as they are developed.
29

1 **High-Precision Scales Training Course.** NLMP staff Loren Minnich and Jan Konijnenburg are updating and
2 finalizing a course developed in 2020 by prior NIST OWM staff members John Barton, Steve Cook, and Rick
3 Harshman.

4 The course will be presented virtually and will include a series of videos to illustrate specific tests and features of
5 these weighing devices and their applications. The term “high-precision scales” refers to scales used in applications
6 such as jewelry, prescriptions, grain measurements, and cannabis. The target date for this course is late spring/early
7 summer 2024.

8 **Information Hours – Field Inspection Topics.** At the last several NCWM meetings, OWM has shared plans for the
9 development of a series of informal, interactive “Information Hours” targeted at field inspection activities. Each
10 NLMP staff member has been assigned to develop one of these sessions, which will be presented in a webinar format
11 and include the opportunity for question-and-answer sessions. The sessions will be open to all interested students and
12 will cover a variety of technical topics related to field inspections. Plans are to launch these sessions beginning in late
13 spring 2024.

14 **Price Verification for NCWM National Survey.** OWM has developed training on price verification inspections in
15 conjunction with a national survey being conducted by the NCWM. Thus far, NIST OWM has offered four sessions
16 in the time frame of November 2023 to December 2023 and looks forward to working with NCWM on this project.

17 **NIST Handbook 112, NIST Examination Procedure Outlines (EPOs) – Update.** OWM is in the process of preparing
18 an updated publication of NIST Handbook 112. This project had been delayed due to staffing shortages and other
19 changes but is now on track to be completed in spring 2024. This publication will update the NIST EPOs to reflect
20 the current NIST Handbook 44 and other references. NIST plans to include enhancements and revisions to future
21 editions to reflect feedback it has been collecting from its stakeholders.

22 **General – OWM Training**

23 OWM’s presentation material summarized the following statistics for OWM’s 2023 training as follows:

- 24 • 40 classes presented in-person and virtually on topics related to laboratory metrology, metric, laws and
25 regulations, and device inspection and testing
 - 26 ○ Laboratory Metrology Program (including metric-related training) – 24 classes
 - 27 ○ National Laboratory Metrology Program – 16 webinars
 - 28 • 1039 total students
- 29

30 **Course Formats.** OWM is actively exploring and developing options for a mixture of in-person, blended, and virtual
31 training as staffing and conditions permit. This includes “hybrid” courses in which some students attend virtually
32 while others attend in person as well as “blended” courses which include both virtual and in-person options, but all
33 students participate in the same format for different portions of the course.

34 OWM has reached a significantly larger number of students with virtual training and students who have never had the
35 opportunity to attend NIST OWM training in the past have been able to access training because of the virtual format.
36 It is clear that virtual training also offers the advantages of flexibility and reduced costs to learners as well as trainers
37 and makes offering multiple sessions of a given course more practical. However, OWM is mindful of the need for
38 “hands-on” or experiential learning components to its courses and is actively seeking options that will maintain those
39 experiences for learners. Thus, OWM is experimenting with available technology and tools to best incorporate
40 elements of “hands-on” in its field inspection training.

41 OWM is developing three blended and hybrid courses in the Laboratory Metrology Program and in the National Legal
42 Metrology Program and has already presented three virtual sessions from a blended course on retail motor-fuel
43 dispensers as part of a pilot program. Sessions for these courses may also include “asynchronous” formats in which
44 learners can participate in portions of the class through pre-recorded presentations or interactive virtual formats.

1 **Informal Learning Resources.** OWM is working to expand available “informal learning” tools targeted toward field
 2 inspection topics. This includes adding to existing informal learning resources currently offered by NIST such as
 3 study guides, examination procedure outlines, field manuals, and videos as well as exploring the development of new
 4 tools such as checklists and frequently asked questions to assist in field inspections. OWM redesigned its website in
 5 response to feedback collected through a survey of state weights and measures directors in spring 2023 and continues
 6 to refine it to make resources more readily accessible to all its stakeholders.

7 **Virtual Training Studio.** NIST has made significant progress on the creation of a “Virtual Training Studio” at its
 8 Gaithersburg, MD campus, with significant monetary and facility support from OWM’s parent operating unit, the
 9 Physical Measurement Laboratory. This will include outfitting a virtual training space in NIST OWM offices for
 10 delivering virtual training and hosting web-based meetings such as work groups and standards development sessions.
 11 This “studio” will result in a mid-level space for conducting virtual training, live demonstrations, enhanced livestream
 12 capabilities, and other resources.

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

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

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

20 **NCWM Meeting Comments:**

21 **NCWM 2024 Interim Meeting:** The PDC Chair reviewed the item using updated slides with comments provided by
 22 Tina Butcher (NIST OWM). Doug Rathbun (Illinois) commented on the cost of NVLAP, citing that previously the
 23 cost of this service was covered by NIST.

25 **Regional Association Comments:**

26 **CWMA 2023 Interim Meeting:** Mike Harrington, Iowa took NIST online classes and found them to be very helpful.
 27 Requests more on demand video training. Helpful to justify job class increase.

28 Steve Peter, Wisconsin, Developing Training videos in Wisconsin. As they move into editing those videos they will
 29 be reaching out for feedback. Service agents have been requesting where to find training materials.

30 Wes Sommerfield, Iowa, took online LP Cylinder training and found it very helpful.

31 Greg Vanderplaats, Minnesota, NCWM exam have their modules and objectives posted on the NCWM website for
 32 each exam and NIST has HB 44 self-study available.

33 Greg Vanderplaats, Minnesota. Goal for NCWM RSA exam is to have one test that other states may recognize.

34 The committee recommends this as an informational item.

35 **WWMA 2023 Annual Meeting:** WWMA PDC Chair, Miland Kofford (Utah) recognized Dr. Katrice Lippa (NIST
 36 OWM) for her update earlier in the meeting introductions and thanked NIST OWM for the presentation.

37 The committee recommends this as an informational item.

38 **SWMA 2023 Annual Meeting:** The PDC heard no comments on this item and recommends the item remain an
 39 informational item.

1 NEWMA 2023 Interim Meeting: During the NEWMA Interim Meeting Ethan Bogren (Westchester Co., NY) the
2 NCWM PDC Chair discussed correspondence sent to the NCWM PDC members by Michael Cleary (California,
3 Retired) that suggested that the NCWM Field Training Manuals be prioritized and catalogued for accessibility. Jason
4 Flint (New Jersey) suggested that the PDC oversee the development of future Field Training Manuals. Mr. Flint
5 suggested subjects for training manuals include automatic bulk weighing systems and multi dimension measuring
6 devices. Several regulators expressed support for the development of more Field Training Manuals. Cheryl Ayer
7 (New Hampshire) noted that the manuals are live digital documents that can be edited by NCWM when necessary.

8 The committee recommends this as an informational item.

9 **EDU-3 I Instructor Improvement**

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

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

31

32 Mrs. Tina Butcher (NIST OWM) has routinely updated the Committee on instructor development work by NIST
33 OWM and has regularly emphasized that OWM sincerely appreciates the time and resources committed by these
34 trainers and their organizations in support of this important partnership and the expertise that these trainers bring to
35 NIST training events and looks forward to continued collaboration. During the 2023 NCWM Annual Meeting, Mrs.
36 Butcher touched on the topic of ‘blended’ training programs which use a blend of training delivery methods (e.g.,
37 combining virtual training mechanisms such as instructor-led webinars, on-demand or self-study with in-person hands-
38 on content) during discussions on this item. She noted this may also be a path to revive the ‘training the trainer’
39 initiative and grow outreach.

40 OWM will continue to provide the Committee with updates on its progress as well as continue to collaborate with and
41 support the Committee in its work.

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

1 **NCWM Meeting Comments:**

2 NCWM 2024 Interim Meeting: During the 2024 Interim Meeting open hearings, PDC Chairman Ethan Bogren
3 presented an update on NIST OWM Training prepared by NIST PDC Liaison, Tina Butcher, who was unable to attend
4 the meeting due to budget restrictions.

5 OWM reports that it has not undertaken any new work in the area of external instructor improvement in 2023. Plans
6 are underway to include the use of external trainers in a new blended course on “Retail Motor-Fuel Dispensers.”
7 OWM hopes to be able to share an update on these plans by the NCWM Annual Meeting in July 2024.

8 If successful, this model may be used for other field inspection training offered by OWM.

9 The PDC Chair discussed the concept of “Blended” training programs being developed by NIST OWM. This concept
10 involves training modules that consist of both in-person and virtual sessions. The first “Blended” training course will
11 be on retail motor fuel devices. If successful this concept will be applied to other field inspection training. Matt
12 Douglas (CA) suggested an updated list of trainers including their respective regions and areas of expertise be
13 provided. Mr. Douglas also commented on training possibly being provided using available web-based meeting
14 platforms.

15

16 **Regional Association Comments:**

17 CWMA 2023 Interim Meeting: No Comments

18 The committee recommends this as an informational item.

19 WWMA 2023 Annual Meeting: David Aguayo (San Luis Obispo County, CA) – Appreciates and supports efforts for
20 online training that provides consistency with current staff turnover rates.

21 Kevin Schnepf (Division of Measurement Standards, CA) – Appreciates the challenge to find qualified trainers for
22 NIST training. Recommends focusing on identifying SMEs as trainers in regions and develop talent.

23 Miland Kofford (UT) – Appreciates NIST for online training. Recognizes jurisdictions are responsible for training but
24 appreciates the help and guidance from NIST.

25 The committee recommends this as an informational item.

26 SWMA 2023 Annual Meeting: The PDC heard no comments on this item and recommends the item remain an
27 informational item.

28 NEWMA 2023 Interim Meeting: During the 2023 NEWMA Interim Meeting Cheryl Ayer (New Hampshire)
29 suggested that NIST Web based training sessions be more accessible. Ms. Ayer cited an instance where she became
30 aware of an upcoming webinar she thought would be of benefit to a member of her staff, however the inspector could
31 not participate because the registration had closed. Ms. Ayer suggested that Webinars be recorded and then made
32 available for review for those that were not able to participate or for future reference. Marc Paquette (Vermont)
33 suggested a Train the Trainer type program for metrologists.

34 The committee recommends this as an informational item.

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

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

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

- 3 • Planning and Coordinating a National Market Place Survey (Ms. Rachelle Miller, WI, 2017)
- 4 • The Life Cycle of Petroleum from Well to Retail (Mr. Prentiss Searles, API 2017)
- 5 • The United States Mint at Denver – Gold, Coins and Embezzlement (Mr. Thomas Fesing, 2016)
- 6 • Understanding Transportation Network Systems (Ms. Andrea Ambrose Lobato, Lyft and Mr. Bob O’
7 Leary, Uber 2016)
- 8 • Regulatory Consideration for Legalized Marijuana (Ms. Julie Quinn, MN, and Mr. Nick Brechun, CO,
9 2016)
- 10 • Motor Oil Quality Violations (Mr. Tom Glenn, Petroleum Quality Institute of America, 2014)
- 11 • Making Sense of Electronic Receipts (Mr. Justin Hotard, Vice President and General Manager, NCR
12 Corporation, 2014)
- 13 • LNG & CNG Motor Fuel – A Technical Briefing from Industry (Mr. Doug Horne, President CVEF, Mr.
14 Zack Wester, Blu, Mr. Jeff Clarke, NGVA, 2014)
- 15 • Taximeter Technology Advancements (Mr. Matt Daus, International Association of Transportation
16 Regulators, 2013)
- 17 • Advanced Vehicles and Fuel Quality (Mr. John M Cabaniss, Jr., Association of Global Automakers, 2013)
- 18 • Economic Justification and Demonstrating Value of Weights and Measures (Mr. Tim Chesser, Arkansas
19 Bureau of Standards, 2012)
- 20 • Conducting Effective Marketplace Surveys and Investigations (Ms. Judy Cardin, Wisconsin Weights and
21 Measures, 2012)
- 22 • Public Relations and Customer Service as Regulators (Mr. Doug Deiman, Alaska Division of Measurement
23 Standards/CVE, 2012)
- 24 • An Overview of Unit Pricing in the United States (Mr. David Sefcik, NIST OWM, 2011)
- 25 • Grocery Unit Pricing in Australia (Mr. Ian Jarratt, Queensland Consumers Association, 2011)
- 26 • Grocery Unit Pricing in Canada (Mr. Ian Jarratt, Queensland Consumers Association, 2011)
- 27 • The U.S. Hydrogen Measuring System: The Turning Point? (Ms. Kristin Macey, California Division of
28 Measurement Standards, 2011)
- 29 • Corrosion in Ultra Low Sulfur Diesel Underground Storage Systems (Mr. Prentiss Searles and Ms. Lorri
30 Gainawi, American Petroleum Institute, 2010)
- 31 • Risk-Based Inspection Schemes (Mr. Henry Oppermann, Weights and Measures Consulting, LLC, 2010)
- 32 • Diesel Exhaust Fluid (DEF) (Mr. Gordon Johnson, Gilbarco, Inc., and Mr. Randy Moses, Wayne, 2009)
- 33 • Fuel Volatility and Ethanol Blending (Mr. Jim McGetrick, BP Products, 2009)
- 34 • Investigative Techniques (Mr. Michael Cleary, Retired, 2009)

36
37 **NCWM Meeting Comments:**

38 NCWM 2024 Interim Meeting: The PDC chair presented possible training topics that were discussed during the
39 regional meetings, including volumetric testing of bulk motor oils and diesel exhaust fluid and comprehensive training
40 on e-commerce regulation. Matt Douglas (CA) discussed training on Robert’s Rule of Order and type approval
41 requirements for software. Justin Wilson (Charge Point) suggested training be offered on HB 44 requirements
42 concerning the application of the EVSE code in the HB. Mahesh Albuquerque (CO) discussed part of the BOD’s
43 overall strategic plan is to hold smaller scale more focused trade show type conferences starting with EVSE providing
44 guidance on how to launch a program centered on recently adopted HB 44 requirements. Mr. Albuquerque stated that
45 he would be communicating with regions to foster participation in the organization of the event.

46 **Regional Association Comments:**

47 CWMA 2023 Interim Meeting: Mike Harrington, Iowa, wants to continue having professional development programs
48 at conferences. This helps with justification for expense of going to conferences.

49 The committee recommends this as an informational item.

1 WWMA 2023 Annual Meeting: Kurt Floren (Los Angeles County, CA) – Recommends comprehensive e-commerce
 2 training. He commented on the need for uniform training to avoid possible inconsistencies. Consistency will be critical
 3 in regulating this marketplace.

4 Mahesh Albuquerque (Division of Oil and Public Safety, CO) – BOD discussed training for future regional meetings.
 5 Reach out to Roxanne Chepsongol (NM) or anyone on the BOD with recommended training topics.

6 Matt Douglas (Division of Measurement Standards, CA) - Recommends training on the Roberts Rule of Order. He
 7 feels it would be beneficial to the committees. He also believes a training portion for committee chairs would help
 8 them know their boundaries. What questions they can ask and what their role is.

9 The committee recommends this as an informational item.

10 SWMA 2023 Annual Meeting: The PDC heard no comments on this item and recommends the item remain an
 11 informational item.

12 NEWMA 2023 Interim Meeting: During the 2023 NEWMA Interim Meeting Cheryl Ayer (New Hampshire)
 13 suggested gravimetric testing procedures for bulk motor oils as a training topic. Jason Flint (New Jersey) agreed with
 14 Ms. Ayer and suggested that gravimetric testing procedures could also be applied to DEF. Several other regulators
 15 agreed that conference training on gravimetric testing procedures for motor oil and DEF is needed.

16 The committee recommends this as an informational item.

17 **PMT – PROGRAM MANAGEMENT**

18 **PMT-1 I Safety Awareness**

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

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

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

- 28 • Maintaining and updating the safety toolkit.
- 29 • Writing and deploying the NCWM annual safety survey, as well as reporting on the results each year.
- 30 • Finding resources and/or developing weights-and-measures-focused materials relating to the top hazards
- 31 identified through the safety survey or through developing the toolkit.
- 32 • Building a safety culture and developing safety leadership within the NCWM through participation on the
- 33 Safety Subcommittee

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

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

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

Safety Subcommittee Members		
Chair	John Bell	Missouri
Public Sector	Jason Flint	New Jersey
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

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

4 **Regional Safety Liaisons:**

5 **Central Weights and Measures Association (CWMA)**
 6 Mr. John Bell, Missouri Department of Agriculture

7 **Northeastern Weights and Measures Association (NEWMA)**
 8 Mr. Michael Peeler, New Jersey Weights and Measures

9 **Southern Weights and Measures Association (SWMA)**
 10 Mr. Robert Huff, Delaware Department of Agriculture

11 **Western Weights and Measures Association (WWMA)**
 12 Mr. Remy Cano, Northwest Tank & Environmental Services

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

Safety Article Schedule		
Issue Date	Source	Article Deadline
Issue 2 (May 2023)	NEWMA	April 15, 2023
Issue 3 (September 2023)	CWMA	August 13, 2023
Issue 1 (February 2024)	WWMA	January 15, 2024
Issue 2 (May 2024)	SWMA	April 15, 2024

14

15 The Committee would like to thank the following individuals for their contributions since the 2021 Annual Meeting:

- 16 • *A Resource For Safety*– Mr. John Bell (MO)
- 17 • *The Danger Zone of Familiarity* – Mr. Ron Armstrong (NWTES)
- 18 • *Ergonomics and Musculoskeletal Disorders* – Mr. Ron Armstrong (NWTES)
- 19 • *Taking Unnecessary Risks* – Mr. Robert Huff (DE)
- 20 • *Food Safety and the Weights and Measures Inspector* – Mike Peeler (NJ)
- 21 • *Metrology Laboratory Safety* – John Bell (MO)

22 **NCWM Meeting Comments:**

23 NCWM 2024 Interim Meeting: The PDC Committee Chair updated membership on the filling of the previous vacancy
 24 for the position of NEWMA Regional Safety Liaison. This position has been filled by Michael Peeler (New Jersey).
 25 A brief Safety Subcommittee update was provided by David Fraser (Montana). Mr. Fraser noted that activity had been
 26 limited during 2023. Mr. Fraser suggested that the hazards and proper handling of lead as a possible topic. Matt
 27 Douglas (CA) suggested that EVS testing safety for inspectors as a topic.

1 **Regional Association Comments:**

2 CWMA 2023 Interim Meeting: No Comments

3 The committee recommends this as an informational item.

4 WWMA 2023 Annual Meeting: Kevin Schnepf (Division of Measurement Standards, CA) – Recommends EVFS
5 safety training.

6 David Aguayo (San Luis Obispo County, CA) – With staffing changes, the safety page on the NCWM site is utilized
7 often. Supports a regular safety newsletter or updates. Recommends a new NCWM safety survey with published
8 results.

9 David Sefcik (NIST OWM) – Suggests WWMA partner with industry to ask for safety training and guidance at the
10 session on Wednesday (September 20, 2023).

11 The committee recommends this as an informational item.

12 SWMA 2023 Annual Meeting: The PDC heard no comments on this item and recommends the item remain an
13 informational item.

14 NEWMA 2023 Interim Meeting: During the 2023 NEWMA Interim Meeting Jason Flint (New Jersey) recommended
15 that NEWMA Safety Liaison Mike Peeler (New Jersey) replace him on the NCWM Safety Subcommittee. Jim Willis
16 (New York) commented that he would like to see a repository to document accidents and safety issues. These shared
17 experiences will help promote a culture of safety awareness. Cheryl Ayer (New Hampshire) noted that since Julie
18 Quinn (Minnesota, Retired) completed her tenure as chair of the Safety Subcommittee the committee has not
19 conducted any safety surveys. This information was found to be useful in targeting areas of need related to safety
20 awareness. In addition, Ms. Ayer suggested a repository of safety resources be compiled. She noted that on the
21 NCWM website OSHA is the only resource currently listed.

22 The committee recommends this as an informational item.

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

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

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

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

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

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

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

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

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

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

26 The SETG welcomes volunteers and encourages participation from all members. If you or your staff are interested,
 27 contact members of the PDC or the NCWM staff.

Skimmer Education Task Group Members		
Co-Chair	Alan Walker	Florida
Co-Chair	Robert Huff	Delaware
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

28 **NCWM Meeting Comments:**

29 NCWM 2024 Interim Meeting: The PDC Chair provided an update regarding the group. Alan Walker (Florida) and
 30 Robert Huff (Delaware) have assumed leadership roles as co-chairs of the Task Group. With new leadership in place
 31 the Skimmer Education Task Group will likely be renamed to reflect to demand that the role of the group be expanded
 32 to address other types of fraud due to the waning instances of skimmer activity being found throughout the states.
 33 Kurt Floren (LA County, CA) has reiterated his suggestion from the previous NCWM meeting that the scope of the
 34 work include EBT benefits fraud and other types of fraud that are not necessarily affiliated with retail motor fuel

1 devices. Matt Douglas (CA) supported the name change and agreed that the scope of work of the group be expanded
2 and has shown support for Mr. Floren’s comments that EBT benefit fraud be considered as a topic to be addressed by
3 the group. Tim Chesser (Arkansas) suggested the group possibly consider fraud involving payment apps commonly
4 used by cellular phone users.

5 **Regional Association Comments:**

6 CWMA 2023 Interim Meeting: Brenda Geist, Kansas, Kansas does not want to see this task group disbanded. States
7 need to be proactive on skimmers.

8 Mike Harrington, Iowa, Skimmer Education Task Group needs a chair. Anyone interested can let Mike Harrington
9 know and he will pass it on to the Task Group.

10 The committee recommends this as an informational item.

11 WWMA 2023 Annual Meeting: Matt Douglas (Division of Measurement Standards, CA) – Supports and appreciates
12 the Task Group, recommends adding pulser technology and include other devices that facilitate fraud.

13 Gene Robertson (NCWM Chair) – Named Alan Walker (FL) as co-chair of Task Group and suggests name change to
14 include more types of fraud activities.

15 Vince Wolpert (AZ) – Arizona recently saw pulser and multiple skimmer devices causing losses over \$3,000. The
16 technology is advancing, and AZ is seeing different designs. Supports expanding the group to include all types of
17 fraud.

18 Kevin Schnepf (Division of Measurement Standards, CA) – Echoes Vince Wolpert’s comments and recommends
19 name change to “Fraud Prevention Task Group”.

20 Kurt Floren (Los Angeles County, CA) – Reiterates NCWM Annual Conference comments about EBT and WIC
21 benefit thefts growing in LA County and more USDA money is being stolen. Thefts of government benefits have
22 gone from hundreds of thousands to hundreds of millions of dollars. This will eventually affect state Departments of
23 Agriculture budgets. Taking on this issue may help secure funding from USDA and other federal programs to support
24 fraud prevention and investigation. Suggests continuing to pursue the issue.

25 The committee recommends this as an informational item.

26 SWMA 2023 Annual Meeting: Alan Walker (FL) has volunteered to Chair the Skimmer Education Task Group. The
27 PDC recommends continuing the Skimmer Education Task Group and look forward to the work they are doing.

28 NEWMA 2023 Interim Meeting: During the 2023 NEWMA Interim Meeting Jimmy Cassidy (Massachusetts)
29 suggested that the scope of work of the TG be expanded to include other types of fraud. It was suggested that the TG
30 begin to look at instances of fraud involving other devices as well as RMFD. Several other regulators commented on
31 the need to keep the TG active and agreed that expanding the scope of work should be considered.

32 The committee recommends this as an informational item.

33

- 1 Mr. Ethan Bogren, Westchester County, New York | Committee Chair
- 2 Ms. Valerie Forbes, Delaware | Vice Chair
- 3 Mr. Scott Simmons, Colorado | Member
- 4 Mr. Brian Terry, Arkansas | Member
- 5 Ms. Sherry Turvey, Kansas | Member
- 6 Mr. Perry Lawton, TESCO | AMC Representative
- 7 Mr. John Bell, Missouri | Safety Liaison
- 8 Ms. Tina Butcher, NIST, OWM | NIST Liaison
- 9 Mr. Jerry Buendel, Retired | Certification Coordinator
- 10 **Professional Development Committee**

Appendix A

Summary of NIST OWM Training Conducted in 2023 (PDC Agenda Item EDU-2)

Summary of NIST OWM Training Conducted in 2023			
Area/Course Name	Start Date	Location	No. of Students
Laboratory Metrology			
Advanced Mass Seminar (Rev 2015)	07/17/23	Gaithersburg, MD	6
Fundamentals of Metrology (3 sessions)	1/30/23; 2/27/23; & 8/7/23	Gaithersburg, MD	26
Fundamentals of Metrology – IA00 Participants	5/22/23	Gaithersburg, MD	11
Mass Metrology Seminar (2 sessions)	2/6/23 & 4/10/23	Gaithersburg, MD	16
Volume Metrology Seminars	8/14/23	Gaithersburg, MD	5
Information Hours			
Training Requirements for New Metrologists	9/07/23	Web-based	32
Regional Measurement Assurance Programs (RMAs)			
SEMAP	3/27/23	Nashville, TN	17
WRAP	5/15/23	Anchorage, AK	16
NEMAP	6/12/23	Albany, NY	17
SWAP	8/28/23	Little Rock, AR	21
MidMAP	9/25/23	Chicago, IL	22
Webinars			
Basic Uncertainty Concepts	9/14/23	Web-based	11
Calibration Certificate Evaluation	6/22/23	Web-based	10
Document Control and Record Keeping	8/17/23	Web-based	11
State Laboratory Annual Submission Process	7/6/23	Web-based	55
Metric			
Info Session – Metric Education Resources	2/9/23	Web-based	16
Info Session – Metric System Estimation (2 sessions)	2/23/23	Web-based	6
	8/31/23	Web-based	9
Measurement System Basics – SI and US Customary Units for Regulatory Officials	3/02/23	Webinar	11
Laws and Regulations			
Packaging & Price Verification			
NIST Handbook 130 – Examination Procedure for Price Verification (2 Sessions)	1/03/23 & 5/02/23	Web-based	124
NIST Handbook 130 – Overview of the Uniform Packaging and Labeling Regulation (3 sessions)	1/19/23; 2/27/23; 5/01/23	Web-based	160
NIST Handbook 133 – How to Test Animal Bedding (2 sessions)	1/04/23 & 4/25/23	Web-based	54
NIST Handbook 133 – Overview of Handbook 133 (2 sessions)	1/17/23 & 4/20/23	Web-based	149
Weights and Measures Inspections – Evidence, Search and Seizure, and Due Process (2 sessions)	1/25/23 & 4/24/23	Web-based	121
LPG (Propane) -Verifying the Net Contents of 20 lb Cylinders (Part 1) (2 sessions)	1/24/23 & 4/19/23	Web-based	91
Legal Metrology Devices			
Retail Motor-Fuel Dispensers - Part 0 – Course Overview, Blended Course (Pilot Session)	7/19/23	Web-based	6
Retail Motor-Fuel Dispensers - Part 0 – Course	7/21/23	Web-based	6

2024 PDC Interim Meeting Report

Appendix A – Summary of NIST OWM Training Conducted in 2023

Overview, Blended Course (Pilot Session)			
Retail Motor-Fuel Dispensers, Blended Course - Part 4 – Test Notes (Pilot Session)	7/24/23	Web-based	10

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

