

National Type Evaluation Program (NTEP) Committee 2019 Interim Meeting Report

Mr. James Cassidy, Committee Chair
Massachusetts

INTRODUCTION

The NTEP Committee (hereinafter referred to as the “Committee”) submits this Committee Interim Report for consideration by National Conference on Weights and Measures (NCWM). This report contains the items discussed and actions proposed by the Committee during its Interim Meeting in Charleston, South Carolina, January 13-16, 2019. The report will address the items in Table A during the Annual Meeting. Table A identifies the agenda items by reference key, title of item, page number and the appendices by appendix designations. The acronyms for organizations and technical terms used throughout the agenda are identified in Table B.

The NTEP Program is administered by NCWM with input from members of NCWM. NCWM Publication 14, *Administrative Policy* changes are adopted by recommendation of the Committee and a majority vote of the Board of Directors. NCWM Publication 14, *Technical Policy, Checklists, Test Procedures* changes are adopted by recommendation of the NTEP Sectors and a majority vote of the NTEP Committee.

The first three letters of an item’s reference key are assigned from the Subject Series List. The status of each item contained in the report is designated as one of the following: **(D) Developing Item:** The Committee determined the item has merit; however, the item was returned to the submitter or other designated party for further development before any action can be taken at the national level; **(A) Assigned Item:** The Committee has assigned development of the item to a recognized subcommittee or task group within NCWM. **(I) Informational Item:** The item is under consideration by the Committee but not proposed for Voting; **(W) Withdrawn Item:** The item has been removed from consideration by the Committee.

The Committee may change the status designation of agenda items (Developing, Assigned, Informational, and Withdrawn) up until the report is adopted. Any change from the Committee Interim Report (as contained in this publication) or from what appears on the addendum sheets will be explained to the attendees prior to a vote of the NTEP Committee or Board of Directors.

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

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

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Activity Reports.....	ACT Series
Conformity Assessment Program	CAP Series
NCWM Publication 14, Administrative Policy	ADM Series
Other Items	OTH Series

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Table B
Glossary of Acronyms and Terms

Acronym	Term	Acronym	Term
CC	Certificate of Conformance	NCWM	National Conference on Weights and Measures
CIML	International Committee of Legal Metrology	NIST	National Institute of Standards and Technology
DoMC	Declaration of Mutual Confidence	NTEP	National Type Evaluation Program
IV	Initial Verification	OIML	International Organization of Legal Metrology
MAA	Mutual Acceptance Arrangement	OIML-CS	International Organization of Legal Metrology – Certificate System
MC	Measurement Canada	OWM	Office of Weights and Measures
MDMD	Multiple Dimension Measuring Devices	R	Recommendation
MRA	Mutual Recognition Arrangement	VCAP	Verification Conformity Assessment Program

Details of All Items
(In order by Reference Key)

1 **INT – INTERNATIONAL**

2 **INT-1 I Mutual Recognition Arrangement (MRA)**

3 **Background/Discussion:**

4 The MRA between Measurement Canada (MC) and NTEP labs originated April 1, 1994. Since that time, the original
5 MRA has expanded, and a second MRA covering measuring devices was developed. On Tuesday July 26th, 2016,
6 NCWM Chairman Jerry Buendel and Measurement Canada President Alan Johnston signed a renewal MRA that
7 provides for continued cooperation between the two organizations and continuation of the beneficial partnership. The
8 new MRA will be effective for 5 years.

9 **The scope of the current MRA includes:**

- 10 • gasoline and diesel dispensers;
11 • high-speed dispensers;
12 • gasoline and diesel meters intended to be used in fuel dispensers and truck refuelers;
13 • electronic computing and non-computing bench, counter, floor, and platform scales with a capacity up to
14 1000 kg (2000 lb);
15 • weighing/load receiving elements with a capacity of up to 1000 kg (2000 lb);
16 • electronic weight indicating elements (except those that are software based, i.e., programmed by
17 downloading parameters); and
18 • mechanical scales up to 10 000 kg (20 000 lb).

19 MC, NTEP, and all our mutual stakeholders agree that the MRA is a benefit for the North American weights and
20 measures industry. The NTEP Committee appreciates the efforts and cooperation of Measurement Canada and is
21 working with MC to continue the cooperative arrangement.

22 The NTEP Weighing and Measuring Laboratories held their annual meeting and training in Gatineau/Ottawa Canada
23 April 3-5, 2018. During that time all representatives attended a session at the at the Measurement Canada facilities.
24 NCWM/NTEP wants to state their appreciation for the hospitality of the Measurement Canada staff.

1 **INT-2 I OIML-Certification System (CS)**

2 **Background/Discussion:**

3 In January 2018 the International Organization of Legal Metrology (OIML) MAA was officially replaced with the
4 OIML-Certification System (CS). Information regarding the OIML-CS can be found at [www.oiml.org/maa/en/oiml-
6 cs/general](http://www.oiml.org/maa/en/oiml-
5 cs/general). NCWM signed the OIML MAA Declaration of Mutual Confidence (DoMC) for Recommendation (R) 60
7 Load Cells as a Utilizing Participant in 2006 and NCWM signed the OIML-CS Utilizer Declaration in January 2018.
8 A Utilizer is a participant which does not issue any OIML Certificate of Conformance (CC) nor OIML Test Reports
9 but does utilize the reports issued by OIML-CS Issuing Authorities.

9 Because of difficulties encountered by the International Bureau of Legal Metrology (BIML) in adequately obtaining
10 and summarizing peer review and/or accreditation data from the MAA test laboratories, it was proposed that a more
11 robust OIML Certification System (OIML-CS) be developed that has a Management Committee to develop policy
12 (subject to approval by the International Committee on Legal Metrology, or CIML) and oversee operations. A
13 preliminary Framework Document for developing the OIML-CS was prepared and was presented to the CIML and
14 approved at the 2016 CIML Meeting (in Strasbourg, France). On this basis, an OIML-CS Preliminary Management
15 Committee (PrMC) was formed, which continued the work of developing the additional OIML-CS documents. Dr.
16 Ehrlich represented the U.S. on the PrMC at meetings in Berlin, Germany, in February 2017, and in Shanghai, China,
17 in June 2017. Mr. Darrell Flocken from NCWM/NTEP accompanied Dr. Ehrlich to the Shanghai meeting, which also
18 included a Seminar on the OIML-CS and a final meeting of the MAA Committee on Participation Review (CPR).
19 The CIML approved the OIML-CS Framework Document (OIML B 18) at its annual meeting in Cartagena, Colombia,
20 in October 2017, and the OIML-CS went into effect in January 2018.

21 Dr. Ehrlich serves on the Management Committee of the OIML-CS, and Mr. Flocken will serve on the Review
22 Committee. The US (NTEP) supported the OIML-CS process and has agreed to continue accepting OIML-CS R 60
23 test data for load cells with the provision that any use of manufacturer test data was clearly identified on the test report
24 section of the certificate because NTEP cannot use manufacturer test data towards issuance of an NTEP certificate.
25 The OIML-CS criteria align with the NTEP Committee's recommendations and the instructions provided by the NCWM
26 Board of Directors.

27 Dr. Ehrlich requested, on multiple occasions, that NCWM review its policy regarding participation in the OIML MAA
28 (and now the OIML-CS) R76 (Non-Automatic Weighing Instruments). The NCWM Board recapped the decision
29 process to participate in the utilization of R60 test data. Existing policy from 2006 is not to participate in R76 until
30 NCWM can do so as an Issuing Participant., now referred to under the OIML-CS as an Issuing Authority. The Board
31 has revisited the 2006 discussions leading to that decision, including considerations for NTEP labs' work load,
32 potential lost expertise, concerns with quality of evaluations at some foreign labs, etc. Dr. Ehrlich wanted NCWM to
33 reconsider and, if there was no possibility in sight that the NCWM could become an Issuing Authority, then it should
34 consider becoming a Utilizer Participant for OIML R76. Some U.S. manufacturers support NCWM policy, but others
35 would like to have one-stop shopping. The OIML-CS also includes R49 (water meters), and R117 (RMFD) will be
36 added next year (under what is called "Scheme A", which is the introductory level of the OIML-CS where "self-
37 declaration" is used as the basis for demonstrating compliance with the OIML-CS). OIML R60 and OIML R76 are
38 already under "Scheme A", where either accreditation or peer review required. Since there are no new developments
39 to affect the decision, the NCWM Board of Directors agreed to maintain existing policy at this time.

40 From January 2011 to October 2018, ninety-one NTEP certificates for load cells were issued under the former MAA, now
41 OIML Certification System. The NTEP Administrator has reviewed all test data and drafted the NTEP certificates.

42 Dr. Ehrlich is representing the U.S. interests in this work and will update the Board at the NCWM Interim Meeting in
43 January 2019.

1 ACT – ACTIVITY REPORTS

2 ACT-1 I NTEP Participating Laboratories and Evaluations Reports

3 **Background/Discussion:**

4 The NTEP weighing and measuring laboratories held a joint meeting April 3-5, 2018, in Ottawa, Canada.

5 The NTEP weighing laboratories also met in August 2018, prior to the NTEP Weighing Sector meeting and the
6 measuring laboratories met in September 2018, prior to the NTEP Measuring Sector meeting in Baltimore, MD to
7 discuss current issues.

8 NTEP continues to routinely survey customers pertaining to NTEP administration and laboratories customer service.
9 The survey is released to active CC holders. The board routinely reviews the results of the survey to form a continuous
10 improvement plan for NTEP. With any survey, the challenge is to develop a document that is concise enough that
11 customers will respond, while also providing a meaningful set of data. To date, the NCWM Board of Directors is
12 finding general approval of NTEP services.

13 During the 2018 Annual Meeting the Committee reviewed NTEP statistics through June 2018. The review of statistics
14 shows that incoming applications are relatively comparable to normal and there exist no significant laboratory backlog
15 issues. See Appendix A for NTEP statistics.

16 The 2019 meeting of the NTEP Participating Laboratories is scheduled for March 26-28, 2019 in Tulsa, Oklahoma.

17 ACT-2 I NTEP Sector Reports

18 **Background/Discussion:**

19 All NTEP Sector reports were available to members at the time *NCWM Publication 15* was published. The NTEP
20 Committee is committed to ensuring that electronic versions of sector reports are available with *NCWM Publication*
21 *15*. Please note that the sector reports will only be available in the electronic version of *NCWM Publication 15* at
22 ncwm.net/meetings/interim/archive; they will not be available in the printed versions of *NCWM Publication 15*.

23 The NTEP Committee reviewed and approved all 2018 NTEP Sector and Work Group reports and recommendations
24 on January 15, 2019 at the NCWM Interim Meeting.
25

26 **NTEP Belt-Conveyor Scale Sector:**

27 The NTEP Belt-Conveyor Scale Sector last met February 23, 2016, in Pittsburgh, PA. The sector did not have enough
28 NIST Handbook 44 and NCWM Publication 14 agenda items to justify a meeting in 2017 or 2018.

29 The next meeting of the NTEP Belt-Conveyor Scale Sector is being considered for late 2019 but has not been
30 scheduled at this time. For questions on the status of sector work or to propose items for a future meeting, please
31 contact the sector Technical Advisor:

Technical Advisor

Mr. John Barton

NIST, OWM

100 Bureau Drive, MS 2600

Gaithersburg, MD 20899

Phone: (301) 975-4002

Fax: (301) 975-8091

Email: john.barton@nist.gov

1 **NTEP Grain Moisture Meter and NIR Protein Analyzer Sectors:**

2 The NTEP Grain Analyzer Sector met August 15-16, 2018 in Kansas City, MO. A draft of the final summary was
3 provided to the Committee prior to the 2019 NCWM Interim Meeting for review and approval (See Appendix B).

4 The next meeting of the NTEP Grain Moisture Meter and NIR Protein Analyzer Sectors is scheduled for
5 August 13, 2019 in Kansas City, MO. For questions on the status of sector work or to propose items for a future
6 meeting, please contact the Technical Advisor:

Technical Advisor

Ms. G. Diane Lee
NIST, OWM
100 Bureau Drive, MS 2600
Gaithersburg, MD 20707
Phone: (301) 975-4005
Fax: (301) 975-8091
Email: diane.lee@nist.gov

7 **NTEP Measuring Sector:**

8 The NTEP Measuring Sector met September 25-26, 2018 in Baltimore, MD. A draft of the final summary was
9 provided to the Committee prior to the 2019 NCWM Interim Meeting for review and approval. (See Appendix C)

10 The next meeting of the NTEP Measuring Sector Meeting is scheduled for late September 24-25, 2019 in Denver,
11 CO. For questions on the status of sector work or to propose items for a future meeting, please contact the sector
12 Technical Advisor:

Technical Advisor

Ms. Tina Butcher
NIST, OWM
100 Bureau Drive, MS 2600
Gaithersburg, MD 20899
Phone: (301) 975-2196
Fax: (301) 975-8091
Email: tina.butcher@nist.gov

13 **NTEP Software Sector:**

14 The NTEP Software Sector met August 22-23, 2018 in Louisville, KY. It was a joint meeting with the NTEP Weighing
15 Sector. A final draft of the meeting summary was provided to the Committee prior to the 2019 NCWM Interim Meeting
16 for review and approval. (See Appendix D)

17 The next meeting of the NTEP Software Sector is scheduled for September 25-26, 2019 in Denver, CO. The meeting
18 will be a joint meeting of the NTEP Measuring Sector and Software Sector. For questions on the status of sector work
19 or to propose items for a future meeting, please contact the sector Chair and/or the NTEP Specialist:

Chair

Mr. James Pettinato
FMC Technologies Measurement Solutions, Inc.
1602 Wagner Avenue
Erie, PA 16510
Phone: (814) 898-5250
Fax: (814) 899-3414
Email: jim.pettinato@fmcti.com

NTEP Specialist

Mr. Darrell Flocken
NCWM
1135 M Street, Suite 110
Lincoln, NE 68508
Phone: (614) 620-6134
Email: darrell.flocken@ncwm.net

1 **NTEP Weighing Sector:**

2 The NTEP Weighing Sector met August 21-23, 2018, in Louisville, KY. This was a joint meeting with the NTEP
 3 Software Sector. A final draft of the meeting summary was provided to the Committee prior to the 2019 NCWM
 4 Interim Meeting for review and approval. (See Appendix E)

5 The next NTEP Weighing Sector meeting is scheduled for August 20-21, 2019 in Denver, CO. For questions on the
 6 status of sector work or to propose items for a future meeting, please contact the sector Technical Advisor:

Technical Advisor

Mr. Rick Harshman
 NIST, OWM
 100 Bureau Drive, MS 2600
 Gaithersburg, MD 20899
 Phone: (301) 975-8107
 Fax: (301) 975-8091
 Email: richard.harshman@nist.gov

7

8 **NTEP Multiple Dimension Measuring Devices (MDMD) Work Group:**

9 The NTEP MDMD Work Group met May 8-9, 2018, in Columbus, OH. A final draft of the meeting summaries was
 10 provided to the Committee prior to the 2019 NCWM Interim Meeting for review and approval. (See Appendix F)

11 The next NTEP MDMD Work Group meeting is scheduled for May 7-8, 2019 in Columbus, OH. For questions on
 12 the status of work group or to propose items for a future meeting, please contact Work Group Chair Chris Senneff or
 13 NTEP Specialist Darrell Flocken.

14

Chair

Mr. Chris Senneff
 Rice Lake Weighing Systems
 230 W. Coleman Street
 Rice Lake, WI 54868
 Phone: (715) 434-5175
 Email: csenneff@ricelake.com

NTEP Specialist

Mr. Darrell Flocken
 NCWM
 1135 M Street, Suite 110
 Lincoln, NE 68508
 Phone: (614) 620-6134
 Email: darrell.flocken@ncwm.net

15 **CAP – CONFORMITY ASSESSMENT PROGRAM**

16 **CAP-1 I Conformity Assessment Program**

17 **Background/Discussion:**

18 The Conformity Assessment Program was established to ensure devices produced after the device has been type
 19 evaluated and certified by NTEP continue to meet the same requirements. This program has three major elements: 1)
 20 Certificate Review (administrative); 2) Initial Verification (inspection and performance testing); and 3) Verified
 21 Conformity Assessment (influence factors). This item is included on the Committee’s agenda to provide an update
 22 on these elements.

23 **Certificate Review:**

24 Certificates are constantly under review by NTEP staff and laboratories. Many active certificates are amended
 25 annually because of manufacturer submission for evaluation or issues reported by the states pertaining to information
 26 on the certificate. When the devices are re-evaluated and certificates are amended, all information is reviewed and
 27 necessary steps are taken to assure compliance and that accurate, thorough information is reported on the certificate.

28 In an effort to keep certificate information up to date, the Committee continues to offer an opportunity for active
 29 certificate holders to update contact information that is contained in the “Submitted By” box on certificates. This is
 30 offered during the payment period of their annual maintenance fee. Many CC holders have taken advantage of the
 31 opportunity for hundreds of NTEP certificates.

1 **Initial Verification (IV):**

2 The IV initiative is ongoing. Field enforcement officials perform an initial inspection and test on new installations on
3 a routine basis. The Committee recognized that the states do not want IV reporting to be cumbersome.

4 An IV report form was developed several years ago. The Committee desired a simple form, perhaps web-based for
5 use by state and local regulators. The form was approved by the Committee and distributed to the states. A completed
6 form can be submitted via mail, e-mail, fax, or online. The form is available to regulatory officials who are members
7 of NCWM at www.ncwm.net/ntep/conformity/verification.

8 NTEP has acknowledged that the state, county and city regulators have not bought into the IV report form. Industry
9 representatives stated that IV is very important to ensure conformity assessment and the NCWM should push harder
10 for reporting of non-compliance issues found during IV.

11 NTEP is open to suggestions on how to improve the reporting of non-compliant devices found during initial
12 verification.

13 **VCAP:**

14 NCWM has been concerned about production meeting type and protecting the integrity of the NTEP CC since the
15 inception of NTEP. The board has consistently reconfirmed its belief that conformity assessment is vital to NTEP's
16 continued success.

17 Load cells traceable to NTEP certificates were selected for the initial assessment effort. NCWM elected to require a
18 systems audit checklist that is to be completed by an outside auditor and submitted to NCWM per Section 221.3.3.3.5
19 of the VCAP requirements. A VCAP Systems Audit Checklist for Manufacturers and a VCAP Systems Audit
20 Checklist for Private Label Certificate Holders have been developed and are available on the website at
21 www.ncwm.net/ntep/conformity/vcap/checklists-faqs. Additionally, the Committee developed a new *NCWM*
22 *Publication 14*, administrative policy to distinguish between the requirements for parent NTEP certificate holders
23 (21.3.3.2) and private label certificate holders. The requirements in 21.3.3.7 track the private label checklist
24 requirements: traceability to parent NTEP CC, traceability of the private label cell to a VCAP audit, purchase and
25 sales records, plan to report non-conforming product and non-conforming product in stock, plan to conduct internal
26 audits to verify non-compliance action, and internal audit records.

27 **Updated Statistics:** The Committee was given updated VCAP statistics and information during the 2018 Annual
28 Meeting. As a result of VCAP activities for July 1, 2017 to June 1, 2018:

29 • **Load Cells:**

- 30 ○ 41 new or amended CC's were issued since July 1, 2017. Of these 41, 6 CC were issued to 5 new
31 manufacturers. Manufacturers have until November 2018 to become VCAP compliant.
32 ○ No CC were made inactive since July 1, 2017 because of VCAP noncompliance.
33

34 • **W/LRE ≥ 2000 lb w/non NTEP load cells:**

- 35 ○ 17 new or amended CC's, within this VCAP device category, were issued since July 1, 2017. Of these 17, 2
36 CC was issued to a new manufacturer. The manufacturer has until February 2019 to become VCAP
37 compliant.
38 ○ No CC were made inactive since July 1, 2017 because of VCAP noncompliance.

39 • **Indicating Elements:**

- 40 ○ 36 new or amended CC's were issued since July 1, 2017. Of these 36, 5 CC's were issued to 4 new
41 manufacturers. The manufacturers have until March and August 2019 to become VCAP compliant.
42 ○ No CC were made inactive since July 1, 2017 because of VCAP noncompliance.
43

44 • **Complete Scales:** This device category has a compliance deadline of the end of June 2018 for manufacturers
45 and the end of December 2018 for private label CC holders.

- 46 ○ 6 new CC holding companies have been added to VCAP for this category of device types since the original
47 56 reported on last year; bringing the total number of manufacturers requiring VCAP audits to 62.

- 1 ▪ 58 are manufacturers
- 2 ▪ 4 are private labelers.
- 3 ○ 94 new or amended CC's were issued since July 1, 2017
- 4 ○ For the addition of this device type, and future device types, it is not possible to report on the exact number
- 5 of manufacturers which have included this device type into their VCAP program. This is because of the
- 6 most recent VCAP Policy change not requiring manufactures with current VCAP compliance status to
- 7 undergo an audit for the new device type. Compliance will be determined at their external audit. We can
- 8 report that 2 new manufacturers have received their first CC and have until January 2019 to become VCAP
- 9 compliant.

10 **Misc. VCAP Information:**

- 11 1. To date the NTEP Specialist has audited 16 companies totaling 19 locations.
- 12 2. My current audit backlog, in scheduled audits, consists of 3 new companies and 1 current customer.
- 13 3. The NTEP Specialist will begin scheduling re-assessment audits (the 3-year schedule) in the second half of
- 14 2018.

15 **VCAP Audits:** The Committee had discussions about the required number of audits for facilities that manufacture

16 multiple device types. For example, if a company had successful audits for two device types, they might submit a

17 request for a delay from audit requirements for remaining device types, stating that they are all subjected to the same

18 processes and will be audited in the next cycle. The Committee agreed to the request in principal and directed the

19 NTEP Administrator to develop NCWM policy language. As a result, the following policy was adopted by the

20 NCWM Board in 2013.

21 **Adding Device Categories to VCAP:**

22 **Policy:**

- 23 1. When a new device category is added to the VCAP requirement, NTEP will recognize the current VCAP
- 24 audit certification in effect, submitted by a certificate holder, for the same certificate holder and same
- 25 production facility(s), to cover the new device category, continue the manufacturing process for devices
- 26 covered by NTEP certificates in the newly added device category, until the due date of the next VCAP audit.

27 **Example:** If a company had successful audits for two device types, they might submit a request for exemption

28 from audit requirements for remaining device types, stating that they are all subjected to the same quality

29 management system and will be included in the next audit cycle. The next VCAP audit must be done within

30 3 years of the last audit and address all applicable device types produced within that facility.

31 Seven weighing device categories subject to influence factors, as defined in NIST Handbook 44, were identified and

32 are subject to VCAP audits. Certificate holders for these device types are required to have an on-site audit of the

33 manufacturer's quality system and on-site random and/or review of a production device by an outside auditor to verify

34 compliance with VCAP. The NTEP Committee and NCWM Board agreed not to include weighing/load receiving

35 elements using NTEP load cells in the list of device categories subject to VCAP. However, the Board notified

36 certificate holders that they have no intention of amending the table of devices subject to influence factor testing found

37 in the Weighing Devices Section of NCWM Publication 14.

38 Certificate holders are encouraged to research the VCAP requirements on the NCWM website under the NTEP,

39 Conformity Assessment section. Certificate holders are encouraged to review the VCAP requirements applicable to

40 their devices and report concerns to the NTEP Committee.

41 The following disclaimer has been advertised and communicated by NCWM: "NCWM is working to identify all active

42 certificates subject to VCAP compliance. As a courtesy, affected certificate holders are being notified of VCAP

43 requirements and the established time line. Please note that the NCWM Board of Directors does not consider it to be

1 NCWM's responsibility to notify all certificate holders about affected certificates. Certificate holders are responsible
 2 for reviewing their active NTEP certificates and compliance with VCAP.”

3 The Committee has received letters, questions, and many other inquiries pertaining to VCAP. The Committee has
 4 worked diligently to answer the questions submitted in a very timely manner. The Committee knows that additional
 5 questions will be posed as VCAP progresses. Certificate holders and other interested parties are encouraged to submit
 6 written questions to the NTEP Committee. The Committee is pleased to report that it has been successful in answering
 7 all the questions to date. Clerical changes and additions have been made to affected VCAP documents as deemed
 8 necessary.

9 **CAP-2 I Timelines for Remaining Device Categories Subject to VCAP**

10 **Source:** NTEP Committee

11 **Item Under Consideration:**

12 NCWM decided to include the remaining device categories subject to VCAP as soon as practicable. In 2016, the
 13 Committee worked to develop a timeline to include the remaining categories. NTEP has developed the following
 14 timelines to phase in the remaining device categories. The timelines identify the inclusion of the remaining device
 15 types into the NTEP, Verified Conformity Assessment Program. Each timeline includes both manufacturers and
 16 private label holders of Certificates of Conformance for the device type. The NTEP Committee is moving forward
 17 with the following timelines.

18 **Background/Discussion:**

19 The Committee heard comments proposing that the remaining device categories be phased in over a several-year
 20 period. The Committee appreciates the input from the stakeholders.

21 When VCAP requirements are applied, the certificate holder is required to have an on-site audit of the manufacturer's
 22 quality system and on-site random and/or review of a production device by an outside auditor to verify compliance
 23 with VCAP. Certificate holders are encouraged to research the VCAP requirements on the NCWM website under the
 24 NTEP, Conformity Assessment section, review the VCAP requirements applicable to their devices and report concerns
 25 to the NTEP Committee.

26 **Automatic Weighing Systems:**

NCWM/NTEP VCAP Compliance Timeline					
Automatic Weighing Systems					
July 2017- Sept 2017	July 2017- Nov 2018	July 2017- May 2019	July 2017- Jun 2019	Dec 2018	Jun 2019
NTEP notifies active CC holders of VCAP requirements	Parent CC holders to put VCAP QM system in place	Private Label CC holders to put VCAP QM system in place	NTEP evaluates incoming audit reports	NCWM declares CCs inactive if Parent CC holder fails to comply with VCAP	NCWM declares CCs inactive if Private Label CC holder fails to comply with VCAP
	CC holder to have audit completed by authorized auditing company	CC holder to have audit completed by authorized auditing company	NTEP contacts CC holders not meeting VCAP requirements to encourage compliance		
	Submit audit report to NCWM/NTEP	Submit audit report to NCWM/NTEP			

1 **Automatic Bulk Weighing Systems:**

NCWM/NTEP VCAP Compliance Timeline Automatic Bulk Weighing Systems					
Jan 2018- March 2018	Jan 2018- May 2019	Jan 2018- Nov 2019	Jan 2018- Dec 2019	Jun 2019	Dec 2019
NTEP notifies active CC holders of VCAP requirements	Parent CC holders to put VCAP QM system in place	Private Label CC holders to put VCAP QM system in place	NTEP evaluates incoming audit reports	NCWM declares CCs inactive if Parent CC holder fails to comply with VCAP	NCWM declares CCs inactive if Private Label CC holder fails to comply with VCAP
	CC holder to have audit completed by authorized auditing company	CC holder to have audit completed by authorized auditing company	NTEP contacts CC holders not meeting VCAP requirements to encourage compliance		
	Submit audit report to NCWM/NTEP	Submit audit report to NCWM/NTEP			

2 **Belt-Conveyor Scales:**

NCWM/NTEP VCAP Compliance Timeline Belt-Conveyor Scales					
July 2018- Sept 2018	July 2018- Nov 2019	July 2018- May 2020	July 2018- Jun 2020	Dec 2019	Jun 2020
NTEP notifies active CC holders of VCAP requirements	Parent CC holders to put VCAP QM system in place	Private Label CC holders to put VCAP QM system in place	NTEP evaluates incoming audit reports	NCWM declares CCs inactive if Parent CC holder fails to comply with VCAP	NCWM declares CCs inactive if Private Label CC holder fails to comply with VCAP
	CC holder to have audit completed by authorized auditing company	CC holder to have audit completed by authorized auditing company	NTEP contacts CC holders not meeting VCAP requirements to encourage compliance		
	Submit audit report to NCWM/NTEP	Submit audit report to NCWM/NTEP			

3 **Background/Discussion:**

4 Two scale companies requested that NTEP consider exempting Automatic Weighing Systems (AWS) and Automatic
 5 Bulk Weighing Systems (ABWS) from the VCAP audit requirement if they utilize NTEP certified load cells. The
 6 Committee discussed both device categories during their work session. The Committee found that all AWS NTEP
 7 certificates were for complete devices per NTEP Technical Policy. Some research also revealed that most ABWS
 8 certificate were for the ABWS controller. The hoppers normally used in an ABWS are covered by their own
 9 weighing/load-receiving NTEP and are several thousand-pound capacity, hence already outside the VCAP
 10 requirement since they exceed the 2000 lb capacity or less threshold. The Committee was made aware of three NTEP
 11 certificates for ABWS which have a capacity of 2000 lb or less but all three were for complete weighing devices. The
 12 Committee concluded that certificates for AWS and ABWS devices are for complete scales or indicating
 13 elements/controllers and require a VCAP audit.

14 Additional comments from affected stakeholders are welcomed and appreciated.

1 **ADM – NCWM PUBLICATION 14, ADMINISTRATIVE POLICY**

2 **ADM-1 I Amend VCAP Sections 21.1.3.1. and 21.1.3.6.**

3 **Source:** Scale Manufacturers Association

4 **Purpose:** Clarify NTEP Administrative Policy VCAP requirements list for both original (Section 21.1.3.1.) and
5 private label (Section 21.1.3.6.) certificate holders to show there is a capacity limitation that applies.

6 **Item Under Consideration:** Amend NCWM Publication 14, Administrative Policy, Section 21.1.3.1. NTEP VCAP
7 Procedures as follows:

8 21.1.3.1 Devices that Must Meet this Requirement are Limited to the List Below:

- 9 • Load Cell (T.N.8.)
- 10 • Indicating Elements (T.N.8.)
- 11 • Weighing/Load Receiving Elements **2000 lb capacity and less** with non-NTEP Load Cells (T.N.8.)
- 12 • Complete Scales **2000lb capacity and less** (T.N.8.)
- 13 • Automatic Weighing Systems **2000 lb capacity and less** (T.7.)
- 14 • Belt-Conveyor Scales **2000 lb capacity and less** (T.3)
- 15 • Automatic Bulk Weighing Systems **2000 lb capacity and less** (T.7.)

16 Amend NCWM Publication 14, Administrative Policy, Section 21.1.3.6. NTEP VCAP Procedures for Private Label
17 Certificate Holders as follows:

18
19 21.1.3.6 Devices that Must Meet this Requirement are Limited to the List Below:

- 20 • Load Cell (T.N.8.)
- 21 • Indicating Elements (T.N.8.)
- 22 • Weighing/Load Receiving Elements **2000 lb capacity and less** with non-NTEP Load Cells (T.N.8.)
- 23 • Complete Scales **2000 lb capacity and less** (T.N.8.)
- 24 • Automatic Weighing Systems **2000 lb capacity and less** (T.7.)
- 25 • Belt-Conveyor Scales **2000 lb capacity and less** (T.3)
- 26 • Automatic Bulk Weighing Systems **2000 lb capacity and less** (T.7.)

27 **Justification:** The requirements for VCAP influence testing do not clarify that they are for devices of 2000lb or less.
28 This stipulation is generally known, but it needs to be properly documented in the handbook to eliminate any “grey
29 areas” of enforcement for VCAP audits.

30 **Discussion:** NTEP views the proposals as clerical in nature. The Scale Manufacturers Association supports this item.
31 NTEP Committee will recommend a vote of the Board of Directors on this item at its July 2019 Meeting.

32 **ADM-2 I Change VCAP Audit Frequency in Sections 3.2.16. and 3.7.10.**

33 **Source:** Scale Manufacturers Association

34 **Purpose:** Change NTEP Administrative Policy VCAP surveillance requirements for both original (Section 3.2.16.)
35 and private label (Section 3.7.10.) certificate holders so audit frequency can be extended from every 3 years to every
36 5 years.

37 **Item Under Consideration:** Amend NCWM Publication 14, Administrative Policy, Section 21.3.2.16. NTEP VCAP
38 Procedures as follows:

39 **3. NTEP Verified Conformity Assessment Program Procedures**

1 ...
 2 21.1.3.2.16. Subsequent audits will be held on-site to verify conformance to these standards. ~~Subsequent~~
 3 ~~audits will be conducted every three years until objective evidence is obtained to move to a~~
 4 ~~maximum of every five years. The first subsequent audit shall be conducted within three~~
 5 ~~years of the initial audit, after which the audit frequency becomes five years.~~

6 ...

7 Amend NCWM Publication 14, Administrative Policy, Section 21.3.7.10. NTEP VCAP Procedures for Private Label
 8 Certificate Holders as follows:

9
 10 21.1.3.7.10. Surveillance audits for VCAP conducted by an outside auditor ~~representing a certification~~
 11 ~~every three years until objective evidence is obtained to move to a maximum of every five~~
 12 ~~years. A subsequent surveillance audit shall be conducted within three years of the initial~~
 13 ~~audit, after which the audit frequency becomes five years.~~

14 **Justification:** Creation of objective criteria to extend the audit frequency that is currently lacking in the NTEP
 15 Administrative Policy.

16 **Discussion:** NTEP administration previously discussed the proposals and did not support them as written but would
 17 consider support if a) The criteria were changed to require both audits to be performed by the same auditor., and b)
 18 The criteria were changed to place the responsibility/decision of extending the resetting of the audit time line, based
 19 upon the criteria, to the auditor. The Scale Manufacturers Association voiced opposition to these comments from
 20 NTEP. Several manufacturers were concerned that it would make the decision too subjective and that it can be difficult
 21 to have the same auditor for 2 consecutive audits. One manufacturer recommended that the 5-year interval for audits
 22 be automatic based on consecutive successful audits.

23 Based on comments received, the NTEP committee replaced the original SMA proposal as shown in the Item Under
 24 Consideration. and will present the item to the Board of Directors for consideration at the 2019 NCWM Annual
 25 Meeting. The original SMA proposal is as follows:

26 21.1.3.2.16. ~~Subsequent audits will be held on-site to verify conformance to these standards. Subsequent audits~~
 27 ~~will be conducted every three years until objective evidence is obtained to move to a maximum of~~
 28 ~~every five years.~~

29 Surveillance audits shall be conducted at the manufacturer’s facility to verify conformance to these
 30 standards. These audits will be conducted every (3) years until the following criteria has been met:

- 31 • The manufacturer has completed at least (2) surveillance audits by a VCAP auditor.
- 32 • No major non-conformances are reported on the previous (2) surveillance audits.
- 33 • All actions taken to correct minor non-conformances have been verified and accepted by the
 34 auditor.

35 Once these criteria have been met the manufacturer may notify the VCAP administrator and
 36 request that the surveillance audit schedule be extended to every (5) years. The (5) year audit
 37 schedule will apply until any of the criteria is not met, at which point the audit schedule will reset
 38 back to every (3) years and the process will begin anew.

39 ...

40 21.1.3.7.10. ~~Surveillance audits for VCAP conducted by an outside auditor representing a certification every~~
 41 ~~three years until objective evidence is obtained to move to a maximum of every five years.~~

42 Surveillance audits shall be conducted at the manufacturer’s facility to verify conformance to these
 43 standards. These audits will be conducted every (3) years until the following criteria has been met:

- 1 • The manufacturer has completed at least (2) surveillance audits by a VCAP auditor.
- 2 • No major non-conformances are reported on the previous (2) surveillance audits.
- 3 • All actions taken to correct minor non-conformances have been verified and accepted by the
- 4 auditor.

5 Once these criteria have been met the manufacturer may notify the VCAP administrator and
6 request that the surveillance audit schedule be extended to every (5) years. The (5) year audit
7 schedule will apply until any of the criteria is not met, at which point the audit schedule will reset
8 back to every (3) years and the process will begin anew.

9 OTH – OTHER ITEMS

10 OTH-1 I Electronic Vehicle Fueling Systems (EVFS)

11 **Source:** California Division of Measurement Standards & NTEP Measuring Laboratories

12 **Item Under Consideration:**

13 Work with U.S. National Work Group Representatives and other experts to develop an NTEP checklist for electronic
14 vehicle supply equipment (EVSE).

15 **Background/Discussion:**

16 In July 2015, the NCWM adopted a tentative code for electronic vehicle fueling systems. The tentative code includes
17 a provision that allows NTEP to accept EVSE for type evaluation to the NIST Handbook 44 code. The USNWG for
18 EVSE developed the tentative code in Handbook 44 and has been working to address evaluation criteria (NTEP
19 checklist) and test standards to be used.

20 The NTEP Measuring Labs discussed the item during their meeting on September 20, 2016. The consensus of the
21 laboratories was that the examination procedure outline developed by the State of California was not in a proper
22 NCWM Pub 14 checklist format. Another prime issue that is still being developed is the test equipment necessary to
23 test these devices. NTEP cannot evaluate without standards for test equipment. Will NIST traceability be required?
24 The Measuring Laboratories concluded that the present Pub 14 checklist for RMFDs would be a good starting point
25 to use in drafting a Pub 14 checklist for EVSE. The NTEP Administrator and NTEP Measuring Laboratories
26 recommend the NCWM Board of Directors / NTEP Committee consider establishing an NTEP Work Group or Task
27 Force to address the EVSE issues.

28 The NTEP Committee agreed with the recommendations of the NTEP Measuring Laboratories and worked to establish
29 a NTEP EVSE Work Group. The NTEP EVSE Work Group was developed with Mr. Andrei Moldoveanu, Senior
30 Program Manager for NEMA appointed as Chair. The Work Group currently consisted of three public sector members
31 and five private sector members representing associate membership.

32 THE NTEP EVSE Work Group (WG) had their kick-off web-based meeting March 14, 2017. The WG had monthly
33 web meetings with the initial goal of having a draft checklist ready for NCWM Board/NTEP Committee review.
34 Significant progress has been made and during the 2018 Interim Meeting the NTEP Committee reviewed the updated
35 Work Group's draft NTEP checklist. NTEP was given permission to proceed with checklist development and
36 evaluations as deemed appropriate. NTEP is working with NIST/OWM to ensure proper requirements for test
37 standards and test procedures are in place. Some technical policy issues still need to be worked out. Additionally,
38 NTEP found out that many of these devices also have a timing feature to allow a charge for parked time (similar to a
39 parking meter). NTEP will work to develop a timing feature supplemental checklist to the EVSE checklist.

40 The CA Lab has acquired EVSE test standards and are now performing validation testing. NTEP expects to perform
41 the initial evaluation of an EVSE device in 2019. For questions on the status of the work group please contact NTEP
42 Administrator Jim Truex at jim.truex@ncwm.net.

1 **OTH-2 I Create a NCWM Publication 14 Category for Software**

2 **Source:** NTEP Software Sector

3
4 **Item Under Consideration:**

5 Create a Publication 14 Software category, which includes requirements, considerations and test procedures common
6 to all software-based devices, including software-only products.

7 **Background/Discussion:**

8 There is no single Publication 14 device category in which to place software-specific requirements, considerations
9 and test procedures. Since most modern measurement devices contain software, to appropriately address any concerns
10 each section of Publication 14 must include all software considerations. Further, each device section has a different
11 governing Sector, which makes the process of change an exercise in convincing each Sector to make needed additions
12 while keeping those additions harmonized across Sectors; an effort that has proven very difficult and time consuming.

13 Such a software section might include the following:

- 14 1. Models to be submitted for evaluation
15 a. What constitutes approved software?
16 i. Measurement and presentation
17 ii. Calculations based on a measured value
18 iii. Manual entry of measured value
19 iv. Other
20 b. Application of software may lead to additional Pub. 14 section consideration
21 c. Minimum computing requirements statement
22 2. Software Identification
23 a. Appropriate means of 'marking' metrologically significant software
24 b. Software Separation and marking consequences
25 c. Relationship between software and software identifier
26 d. Presentation of software identifier
27 i. Example icons and menu text
28 ii. Exceptions
29 3. Protection against unauthorized software change
30 a. How is software "sealed"?
31 b. Remote software update considerations
32 c. Audit trail (if employed) requirements for software updates
33 4. Accuracy of data calculations
34 a. When to stop evaluating calculations & data manipulation
35 5. Software Evaluation Checklist

36 **Future Topics**

- 37 1. Distributed software considerations
38 a. Securing communications between metrologically significant distributed software modules or
39 components of a system

40 The NTEP Committee reviewed and discussed the proposal from the NTEP Software Sector. The Committee is very
41 interested in this idea but heard no comment during the 2018 Interim Meeting open hearings. During the 2018 Annual
42 Meeting open hearings NTEP Software Sector Chair Mr. Jim Pettinato encouraged the Committee to seriously
43 consider and move forward with the proposal. The Sector thinks this would improve the type evaluation process and
44 avoid deviation in language or requirements from Pub 14 section to Pub 14 section. He also pointed out that
45 internationally there is a separate document for software. At the 2019 Interim Meeting, Mr. Pettinato stated that he is
46 drafting an outline of what would appear in NCWM Publication 14 and that the information in the section would be
47 general in nature.

NTEP 2019 Interim Meeting Report

- 1 The Board of Directors and NTEP Committee plan to move forward and allow the NTEP Software Sector to begin
- 2 development of a software checklist section for NCWM Publication 14. The Committee is requesting additional input
- 3 from manufactures, NTEP sectors and others from the weights and measures community.

-
- 4 Mr. James Cassidy, Massachusetts | NTEP Committee Chair
 - 5 Mr. Brett Gurney, Utah | NCWM Chairman
 - 6 Mr. Craig VanBuren, Michigan | NCWM Chair-Elect
 - 7 Mr. Hal Prince, Florida | Member
 - 8 Mr. Jack Walsh, Town of Wellesley, Massachusetts | Member
 - 9 Mr. Jim Truex, NCWM | NTEP Administrator

10 **National Type Evaluation Program Committee**

Appendix A

NTEP Statistics Report

10-Year Report on Applications Received by Quarter

Appendix B

National Type Evaluation Program Grain Analyzer Sector Summary

2018

All NTEP Sector reports were available to members at the time *NCWM Publication 15* was published. The NTEP Committee is committed to ensuring that electronic versions of sector reports are available with *NCWM Publication 15* in the future. Please note that the sector reports will only be available in the electronic version of *NCWM Publication 15* at <http://www.ncwm.net/committees/ntep/sectors/grain-analyzer/archive>; they will not be available in the printed versions of *NCWM Publication 15*.

Appendix C

National Type Evaluation Program Measuring Sector Meeting Summary

2018

All NTEP Sector reports were available to members at the time *NCWM Publication 15* was published. The NTEP Committee is committed to ensuring that electronic versions of sector reports are available with *NCWM Publication 15* in the future. Please note that the sector reports will only be available in the electronic version of *NCWM Publication 15* at <http://www.ncwm.net/committees/ntep/sectors/measuring/archive>; they will not be available in the printed versions of *NCWM Publication 15*.

NTEP 2019 Interim Meeting Report
Appendix C – NTEP Measuring Sector Meeting Summary

Appendix D

National Type Evaluation Program Software Sector Meeting Summary

2018

All NTEP Sector reports were available to members at the time *NCWM Publication 15* was published. The NTEP Committee is committed to ensuring that electronic versions of sector reports are available with *NCWM Publication 15* in the future. Please note that the sector reports will only be available in the electronic version of *NCWM Publication 15* at <http://www.ncwm.net/committees/ntep/sectors/software/archive>; they will not be available in the printed versions of *NCWM Publication 15*.

Appendix E

National Type Evaluation Program Weighing Sector Meeting Summary

2018

All NTEP Sector reports were available to members at the time *NCWM Publication 15* was published. The NTEP Committee is committed to ensuring that electronic versions of sector reports are available with *NCWM Publication 15* in the future. Please note that the sector reports will only be available in the electronic version of *NCWM Publication 15* at <http://www.ncwm.net/committees/ntep/sectors/weighing/archive>; they will not be available in the printed versions of *NCWM Publication 15*.

Appendix F
National Type Evaluation Program
Multiple Dimension Measuring Devices Work Group Meeting Summary

2018

All NTEP Sector and Work Group reports were available to members at the time *NCWM Publication 15* was published. The NTEP Committee is committed to ensuring that electronic versions of sector reports are available with *NCWM Publication 15* in the future. Please note that the sector reports will only be available in the electronic version of *NCWM Publication 15* at <http://www.ncwm.net/committees/ntep/sectors/mdmd/archive>; they will not be available in the printed versions of *NCWM Publication 15*.

