Report of the
National Type Evaluation Program (NTEP) Committee

Mr. Ronald Hayes, Chairman
Missouri

500 INTRODUCTION

This is the report of the NTEP Committee (hereinafter referred to as the “Committee”) for the 101st Annual Meeting of the National Conference on Weights and Measures (NCWM). This report is based on the Interim Report offered in the NCWM Publication 16, testimony heard at public hearings, comments received from the regional weights and measures associations and other parties, the addendum sheets issued at the Annual Meeting, and actions taken by the membership at the voting session of the Annual Meeting. The informational items presented below were adopted as presented when the Committee’s report was approved.

Table A identifies the agenda items and appendix items. The agenda items in the Report are identified by Reference Key Number, title, page number and the appendices by appendix designations. The acronyms for organizations and technical terms used throughout the agenda are identified in Table B. The first three digits of the Reference Key Numbers of the items 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; Informational (I) Item: the item is under consideration by the Committee but not proposed for Voting; (V) Voting Item: the Committee is making recommendations requiring a vote by the active members of NCWM; (W) Withdrawn Item: the item has been removed from consideration by the Committee.

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

Proposed revisions to the handbook(s) are shown as follows: 1) deleted language is indicated with a bold face font using strikeouts (e.g., this report), 2) proposed new language is indicated with an underscored bold faced font (e.g., new items), and 3) nonretroactive items are identified in italics. When used in this report, the term “weight” means “mass.”

Note: The policy of NIST is to use metric units of measurement in all 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 U.S. customary units.
Table A
Table of Contents

Reference Key Title of Item Page
500 INTRODUCTION .........................................................................................................................................1
510 INTERNATIONAL .......................................................................................................................................3
  510-1 Mutual Recognition Arrangement (MRA) ................................................................................... 3
  510-2 Mutual Acceptance Arrangement (MAA) .................................................................................. 6
520 ACTIVITY REPORTS .................................................................................................................................6
  520-1 NTEP Participating Laboratories and Evaluations Reports ......................................................... 6
  520-2 NTEP Sector Reports ................................................................................................................... 7
530 CONFORMITY ASSESSMENT PROGRAM ...........................................................................................9
  530-1 Conformity Assessment Program ................................................................................................ 9
  530-2 Device Categories Subject to VCAP ........................................................................................ 11
  530-3 VCAP Certification Bodies ........................................................................................................ 14

Appendices

A Item 520-1: NTEP Statistics Report .................................................................................................. A1
B Item 520-2: Belt-Conveyor Scale Sector Meeting Summary ........................................................... B1
C Item 520-2: Grain Analyzer Sector Meeting Summary ..................................................................... C1
D Item 520-2: Measuring Sector Meeting Summary .......................................................................... D1
E Item 520-2: Software Sector Meeting Summary ............................................................................. E1
F Item 520-2: Weighing Sector Meeting Summary ............................................................................. F1
G Item 520-2: Multiple Dimension Measuring Devices Meeting Summaries ...........................................G1

Table B
Glossary of Acronyms and Terms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Term</th>
<th>Acronym</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC</td>
<td>Certificate of Conformance</td>
<td>NCWM</td>
<td>National Conference on Weights and Measures</td>
</tr>
<tr>
<td>CIML</td>
<td>International Committee of Legal Metrology</td>
<td>NIST</td>
<td>National Institute of Standards and Technology</td>
</tr>
<tr>
<td>DoMC</td>
<td>Declaration of Mutual Confidence</td>
<td>NTEP</td>
<td>National Type Evaluation Program</td>
</tr>
<tr>
<td>IV</td>
<td>Initial Verification</td>
<td>OIML</td>
<td>International Organization of Legal Metrology</td>
</tr>
<tr>
<td>MAA</td>
<td>Mutual Acceptance Arrangement</td>
<td>OWM</td>
<td>Office of Weights and Measures</td>
</tr>
<tr>
<td>MC</td>
<td>Measurement Canada</td>
<td>R</td>
<td>Recommendation</td>
</tr>
<tr>
<td>MDMD</td>
<td>Multiple Dimension Measuring Devices</td>
<td>VCAP</td>
<td>Verification Conformity Assessment Program</td>
</tr>
<tr>
<td>MRA</td>
<td>Mutual Recognition Arrangement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table C
Summary of Voting Results

<table>
<thead>
<tr>
<th>Reference Key Number</th>
<th>House of Senate Representatives</th>
<th>House of Delegates</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yeas</td>
<td>Nays</td>
<td>Yeas</td>
</tr>
<tr>
<td>To Accept the Report</td>
<td>Voice Vote</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Details of All Items
(In order by Reference Key)

510 INTERNATIONAL

510-1 Mutual Recognition Arrangement (MRA)

Background/Discussion:
The MRA between Measurement Canada (MC) and NTEP labs originated April 1, 1994. Since that time, the original MRA has expanded, and a second MRA covering measuring devices was developed. On Tuesday, July 19, 2011, NCWM Chair, Mr. Tyson, and MC President, Mr. Johnston, signed a five-year renewal MRA that combined the weighing and measuring devices into one document and provides for continued cooperation between the two organizations and continuation of the beneficial partnership. The MRA is scheduled to be renewed in 2016.

The scope of the current MRA includes:

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

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

During the 2014 Annual Meeting, MC announced their agreement to accept test data recorded by an NTEP evaluator at a manufacturer’s facility, as per the NTEP contingency plan, if the test site and test plan were agreed upon prior to testing. The NTEP Committee continued discussion with MC to include Multiple Dimension Measuring Devices (MDMD) in the MRA. Concerns have been documented by the NTEP MDMD Work Group, Measurement Canada,
and NTEP laboratories pertaining to the inclusion of MDMD devices in Annex B of the MRA. After further consideration, the NTEP Committee has decided not to move forward with the proposal to include MDMD in the MRA. The NTEP Committee plans to move forward with renewal of the MRA as it is currently structured.

For informational purposes, the following is the current MRA as published in NCWM Publication 14 (2015), Administrative Policy.

7.1 US/Canada Mutual Recognition Arrangement on Type Evaluation

7.1.1 Purpose
The Purpose of this Mutual Recognition Arrangement (MRA) is to establish a working relationship to implement a voluntary program for the mutual recognition of the device evaluations administered and performed by Measurement Canada (MC), a special operating agency of Industry Canada, and the National Type Evaluation Program (NTEP) of the National Conference on Weights and Measures, Inc. (NCWM) of the United States.

7.1.2 Background
MC and NCWM operate ongoing type evaluation systems for commercial weighing and measuring devices. Canada, many states and several U.S. Federal agencies require the evaluation and approval of the design and performance of device prototypes prior to their sale for commercial use.

Rather than submitting commercial devices for the United States market to NTEP laboratories and essentially the same devices for the Canadian market to the MC’s Approval Services Laboratories, manufacturers requested that United States and Canada (1) combine their evaluation tests and (2) recognize either NTEP laboratory or MC laboratory results of the combined evaluation as the basis upon which NTEP and MC would each issue their evaluation documents (either the NTEP Certificate of Conformance or the Canadian Notice of Approval). Expected benefits include: increase uniformity of test methods reducing unnecessary differences, misunderstandings, and unnecessary duplications; reduced cost and improved turn-around time by accessing a single source for type evaluation for both countries; increased competitiveness for both U.S. and Canadian manufacturers by accelerating the time from design to the end markets.

The following policy was adopted in January 1993 by the National Conference on Weights and Measures (predecessor to the National Conference on Weights and Measures Inc.) in concert with Measurement Canada (then known as Legal Metrology Branch):

“With respect to weights and measures devices, the parties agree that the most effective means to remove barriers to free trade is to achieve mutual recognition of device type evaluation testing. This necessarily involves the comparative analysis of type evaluation codes and test procedures together with the intent of streamlining and minimizing differences in so far as possible so as to enable efficient device evaluation while preserving the technical capability and competence of their mutual laboratories.”

7.1.3 Agreement
The United States National Type Evaluation Program (NTEP) of the National Conference on Weights and Measures Inc. (NCWM) and Measurement Canada (MC) agree to recognize each other’s type evaluation results:

• NCWM will recognize the results of the tests performed by MC for the purpose of issuing NTEP Certificates of Conformance for device types set out in the annex A and B to this arrangement.

• MC will recognize the results of the tests conducted by NTEP Participating Laboratories for the purpose of issuing a Canadian Notice of Approval for the devices types set out in the annex A to this arrangement.
• Each party will continue to issue its own document (either the NTEP Certificate of Conformance or the Canadian Notice of Approval).

7.1.4 **Collaboration**

Both parties will collaborate to eliminate or minimize differences in requirements and test methods so as to enable efficient devices evaluation.

Each party will:

Make all information available to the other party, maintaining confidentiality of proprietary information;

• Collaborate in the development of additional areas of mutual recognition;
• Collaborate in the development of requirements and tests methods for commercial devices and systems;
• Collaborate in the development and maintenance of proficiency and uniformity of evaluation; and
• Collaborate to preserve the technical capability and competence of their mutual laboratories.

7.1.5 **Resolution of Complaints**

This MRA does not create binding obligations under international law. However, each party will investigate complaints that the other party brings forward, and both parties will work together to seek satisfactory resolution of such complaints.

7.1.6 **Duration and Termination**

This MRA will become effective on July 19, 2011. It will remain in effect for a period of five (5) years and may be extended by mutual consent. This MRA may be terminated at any time by either party upon six (6) months written notice to the other party.

7.1.7 **Application for Type Approval**

Under this arrangement, any applicant for type approval is free to apply to either country when requesting type approval in both countries.

**Annex A**

Devices for which NCWM and MC will recognize the results of the tests performed at the NTEP Participating Laboratories or MC Laboratory for the purpose of issuing NTEP Certificates of Conformance (USA) and Canadian Notice of Approval:

- Electronic weight indicating elements (except those that are “software based” i.e. programmed by downloading parameters);
- Electronic computing and non-computing bench, counter, floor and platform scales up to 1000 kg (2000 lb) capacity;
- Weighing/load receiving elements with capacities up to 1000 kg (2000 lb); and
- Mechanical scales with capacities not exceeding 10 000 kg (20 000 lb).

**Annex B**

Devices for which NCWM will recognize the results of the tests performed by MC for the purpose of issuing NTEP Certificates of Conformance:

- Gasoline Dispensers;
- High-Speed Refuellers; and
- Electronic Registers for Dispensers.
On Tuesday, July 26, 2016, NCWM Chair, Jerry Buendel, and Measurement Canada President, Alan Johnston, signed a renewal MRA that provides for continued cooperation between the two organizations and continuation of the 22 year beneficial partnership. The new MRA will be effective for five years.

510-2 Mutual Acceptance Arrangement (MAA)

Background/Discussion:
Information regarding the International Organization of Legal Metrology (OIML) MAA can be found at www.oiml.org/maa. NCWM has signed the OIML MAA Declaration of Mutual Confidence (DoMC) for Recommendation (R) 60 Load Cells as a utilizing participant. A utilizing participant is a participant that does not issue any OIML Certificate of Conformance (CC) nor OIML Test Reports and/or Test Reports under a DoMC but does utilize the reports issued by issuing participants.

The United States (NTEP) supported the OIML B 10 documents for the MAA with the provision that the use of manufacturer test data was clearly identified on the MAA test report because NTEP cannot use manufacturer test data towards issuance of an NTEP certificate. Consequently, the CIML voted and approved the Amendment to B 10 to allow the inclusion of test data from manufacturers, on a strictly voluntary basis, at its October 2012 meeting in Bucharest, Romania. Dr. Chuck Ehrlich gave an update to the Committee reviewing the history of the above discussions, deliberations, and CIML votes confirming that the outcomes aligned with the NTEP Committee's recommendations and the instructions provided by the NCWM Board of Directors.

Dr. Charles Ehrlich requested on multiple occasions that NCWM review its MAA policy regarding participation in R 76. The NCWM Board recapped the decision process to participate as a utilizing participant for R 60. Existing policy from 2006 is not to participate in R 76 until NCWM is able to do so as an Issuing Participant. The Board has revisited the 2006 discussions leading to that decision, including considerations for NTEP labs’ workload, potential lost expertise, concerns with quality of evaluations at some foreign labs, etc. Dr. Ehrlich wanted NCWM to reconsider and, if there was no possibility in sight that the NCWM could become an Issuing Participant, then it should consider becoming a utilizing participant for OIML R 76. Some U.S. manufacturers support NCWM policy, but others would like to have one-stop shopping. The MAA also includes R 49 (water meters) and R 117 (RMFD) may be added soon. Since there are no new developments to affect the decision, the NCWM Board of Directors agreed to maintain existing policy at this time.

From January 2011 to June 2016 fifty-one NTEP certificates for load cells were issued under the MAA. The NTEP Administrator reviewed all MAA test data and drafted the NTEP certificates.

Because of the more recent difficulties encountered by the International Bureau of Legal Metrology (BIML) in adequately obtaining and summarizing peer review and/or accreditation data from the MAA test laboratories, it has been proposed that more robust OIML Certification System (OIML-CS) be developed that has a Management Board to develop policy (subject to approval by the International committee on Legal Metrology, or CIML) and oversee operations. A preliminary plan for developing the OIML-CS has been prepared, and will be presented to the CIML for its approval.

The next meeting of the Committee on Participation Review (CPR) for R 60 and R 76 is scheduled for March 22 - 23, 2016, in Denmark. Plans are for Dr. Ehrlich, National Institute of Standards and Technology (NIST), Office of Weights and Measures (OWM); Mr. John Barton, NIST, OWM; and Mr. Darrell Flocken, NCWM to attend the meeting.

520 ACTIVITY REPORTS

520-1 NTEP Participating Laboratories and Evaluations Reports

Background/Discussion:
The NTEP weighing and measuring laboratories held a joint meeting April 5 - 7, 2016, in Columbus, Ohio. The NTEP laboratories, NTEP Committee, and NCWM Board of Directors expressed appreciation to Mettler-Toledo for allowing
the NTEP weighing laboratories to utilize their facilities and equipment for hands on training. Special thanks are extended to Mr. Russ Vires, Mr. Scott Davidson, and Mettler-Toledo employees in the training activities.

The NTEP weighing laboratories met in August 2016, prior to the NTEP Weighing Sector meeting in Denver, Colorado.

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

During the 2016 Annual Meeting, the Committee reviewed NTEP statistics through June 2016.

The review of statistics shows that incoming applications are relatively comparable to normal and there exist no significant laboratory backlog issues. See Appendix A.

The State of California announced that they are resuming their activities as an NTEP weighing laboratory. The States of Kansas expressed their interest to pursue authorization as a NTEP Participating Field Laboratory for large capacity weighing devices. NTEP continues working with Kansas toward that goal.

520-2 NTEP Sector Reports

Background / Discussion:
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. Please note that the sector reports will only be available in the electronic version of NCWM Publication 15 at ncwm.net/meetings/interim/archive; they will not be available in the printed versions of NCWM Publication 15.

NTEP Belt-Conveyor Scale Sector:
The NTEP Belt-Conveyor Scale Sector met February 26, 2015, in St. Louis, Missouri. A final draft of the meeting summary was provided to the Committee prior to the 2016 NCWM Interim Meeting for review and approval (See Appendix B).

A meeting of the NTEP Belt-Conveyor Scale Sector was held February 23, 2016, in Pittsburgh, Pennsylvania. For questions on the status of Sector work or to propose items for a future meeting, please contact the 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 
E-mail: john.barton@nist.gov

NTEP Grain Moisture Meter and NIR Protein Analyzer Sectors:
It was decided the NTEP Grain Analyzer (GA) Sector would not conduct a meeting in 2015. Neither a face-to-face or web meeting was announced. The decision was made primarily due to a lack of agenda items. Most of the tentative agenda items were updates and reports and the two S&T items (Item 310-1, G-S.1. Identification from the Software Sector and Item 360-4, Appendix D - Definitions: Remote Configuration Capability) are still developing items. Therefore, Sector Chair Karl Cunningham decided to provide a GA Sector Report of Updates instead of holding a web meeting. A report of updates was compiled and circulated to all sector members. A comment sheet for feedback was circulated and summary of comments reported back to the members. A draft of the final summary was provided to the Committee prior to the 2016 NCWM Interim Meeting for review and approval (See Appendix C).
The next meeting of the NTEP Grain Moisture Meter and NIR Protein Analyzer Sectors is scheduled for September 13 -14, 2016, in Kansas City, Missouri. The second day will be a joint meeting with the NTEP Software Sector. For questions on the current status of Sector work or to propose items for a future 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  
E-mail: diane.lee@nist.gov

**NTEP Measuring Sector:**  
The NTEP Measuring Sector met September 15 - 16, 2015, in Denver, Colorado. A draft of the final summary was provided to the Committee prior to the 2016 NCWM Interim Meeting for review and approval. (See Appendix D)

The next meeting of the NTEP Measuring Sector Meeting is scheduled for September 20 - 21, 2016, in Denver, Colorado. For questions on the current status of Sector work or to propose items for a future meeting, please contact the 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  
E-mail: tina.butcher@nist.gov

**NTEP Software Sector:**  
The NTEP Software Sector met September 16 - 17, 2015, in Denver, Colorado. A final draft of the meeting summary was provided to the Committee prior to the 2016 NCWM Interim Meeting for review and approval. (See Appendix E)

The next meeting of the NTEP Software Sector is scheduled for September 14, 2016, in Kansas City, Missouri. The meeting will be a joint meeting of the NTEP Grain Analyzer and Software Sectors. For questions on the current status of Sector work or to propose items for a future meeting, please contact the Sector Chair and/or the NTEP Administrator:

**Chair NTEP Administrator**  
Mr. James Pettinato  
FMC Technologies Measurement Solutions, Inc.  
1602 Wagner Avenue  
Erie, PA 16510  
Phone: (814) 898-5250  
Fax: (814) 899-3414  
E-mail: jim.pettinato@fmcti.com  
Mr. Jim Truex  
NCWM  
1135 M Street, Suite 110  
Lincoln, NE 68508  
Phone: (740) 919-4350  
Fax: (740) 919-4348  
E-mail: jim.truex@ncwm.net

**NTEP Weighing Sector:**  
The NTEP Weighing Sector met August 25 - 26, 2015, in Denver, Colorado. A final draft of the meeting summary was provided to the Committee prior to the 2016 NCWM Interim Meeting for review and approval. (See Appendix F)

The next NTEP Weighing Sector meeting is scheduled for August 23 - 24, 2016, in Denver, Colorado. For questions on the current status of Sector work or to propose items for a future meeting, please contact the 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  
E-mail: richard.harshman@nist.gov
NTEP Multiple Dimension Measuring Devices (MDMD) Work Group:
The NTEP MDMD Work Group met May 12 - 13, 2015, and September 22 - 23, 2015, in Reynoldsburg, Ohio. A final draft of the meeting summaries was provided to the Committee prior to the 2016 NCWM Interim Meeting for review and approval. (See Appendix G)

A meeting of the NTEP MDMD Work Group was held April 26 - 27, 2016, in Reynoldsburg, Ohio. The next meeting of the Work Group is tentatively scheduled for April 2017 in Columbus, Ohio. For questions on the current status of the work group or to propose items for a future meeting, please contact the Work Group Chair, Mr. Robert Kennington, or NTEP Specialist, Mr. Darrell Flocken.

Chair
Mr. Robert Kennington
Quantronix, Inc.
P.O. Box 929
Farmington, UT 84025
Phone: (801) 939-9520
E-mail: rkennington@cubiscan.com

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

The NTEP Committee reviewed and approved all 2015 NTEP Sector and Work Group reports during the 2016 Interim Meeting.

530 CONFORMITY ASSESSMENT PROGRAM

530-1 Conformity Assessment Program

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

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

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

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

An IV report form was developed several years ago. The Committee desired a simple form, perhaps web-based for use by state and local regulators. The form was approved by the Committee and distributed to the states. A completed form can be submitted via mail, e-mail, fax, or online. The form is available to regulatory officials who are members of NCWM at www.ncwm.net/ntep/conformity/verification.
During the 2014 Annual Meeting, NTEP acknowledged that the regulators have not bought into the IV report form. Industry representatives stated the IV is very important to ensure conformity assessment, and the NCWM should push harder for reporting of non-compliance issues found during IV.

VCAP:
NCWM has been concerned about production meeting type and protecting the integrity of the NTEP Certificates of Conformance (CC) since the inception of NTEP. The board has consistently reconfirmed its belief that conformity assessment is vital to NTEP’s continued success.

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

The Committee was given updated VCAP statistics during the 2016 Annual Meeting. Because of VCAP activities, 27 load cell certificates, involving 15 different certificate holders, were changed to “inactive” status. As a result of VCAP activities, for weighing/load receiving elements, 2000 lb capacity and less, using load cells that are not traceable to their own NTEP certificate, 15 certificates, involving 11 different certificate holders, were changed to “inactive” status.

The Committee had discussions about the required number of audits for facilities that manufacture multiple device types. For example, if a company had successful audits for two device types, they might submit a request for a delay from audit requirements for remaining device types, stating they are all subjected to the same processes and will be audited in the next cycle. The Committee agreed to the request in principle and directed the NTEP Administrator to develop NCWM policy language for consideration during the next Board meeting. As a result, the following policy was adopted by the NCWM Board in October 2013.

Adding Device Categories to VCAP:

Policy:

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

   Example: If a company had successful audits for two device types, they might submit a request for exemption from audit requirements for remaining device types, stating that they are all subjected to the same quality management system and will be included in the next audit cycle. The next VCAP audit must be done within three years of the last audit and address all applicable device types produced within that facility.

Seven weighing device categories subject to influence factors, as defined in NIST Handbook 44, were identified and are subject to VCAP audits. The VCAP process requirement is ongoing for load cells, weighing elements that use non-NTEP load cells and indicating elements. Certificate holders for these device types are required to have an on-site audit of the manufacturer’s quality system and on-site random and/or review of a production device by an outside auditor to verify compliance with VCAP. Certificate holders are encouraged to research the VCAP requirements on the NCWM website under the NTEP, Conformity Assessment section. Certificate holders are encouraged to review the VCAP requirements applicable to their devices and report concerns to the NTEP Committee.
The Committee decided during the 2014 Annual Meeting to include indicating elements and approved the following timeline

<table>
<thead>
<tr>
<th>NCWM/NTEP VCAP Compliance Timeline</th>
<th>Indicating Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 2015 - March 2015</td>
<td>NTEP notifies active CC holders of VCAP requirements</td>
</tr>
<tr>
<td>Jan. 2015 - May 2016</td>
<td>Parent CC holders to put VCAP QM system in place</td>
</tr>
<tr>
<td>Jan. 2015 - Nov. 2016</td>
<td>Private Label CC holders to put VCAP QM system in place</td>
</tr>
<tr>
<td>Jan. 2015 - Dec. 2016</td>
<td>NTEP evaluates incoming audit reports</td>
</tr>
<tr>
<td>June 2016</td>
<td>NCWM declares CCs inactive if Parent CC holder fails to comply with VCAP</td>
</tr>
<tr>
<td>Dec. 2016</td>
<td>NCWM declares CCs inactive if Private Label CC holder fails to comply with VCAP</td>
</tr>
</tbody>
</table>

The following disclaimer has been advertised and communicated by NCWM: NCWM is working to identify all active certificates subject to VCAP compliance. As a courtesy, affected certificate holders are being notified of VCAP requirements and the established time line. Please note that the NCWM Board of Directors does not consider it to be NCWM’s responsibility to notify all certificate holders about affected certificates. Certificate holders are responsible for reviewing their active NTEP certificates and compliance with VCAP.

The Committee has received letters, questions, and many other inquiries pertaining to VCAP. The Committee has worked diligently to answer the questions submitted in a very timely manner. The Committee knows that additional questions will be posed as VCAP progresses. Certificate holders and other interested parties are encouraged to submit written questions to the NTEP Committee. The Committee is pleased to report that it has been successful in answering all the questions to date. Clerical changes have been made to affected VCAP documents as deemed necessary. Two companies stated during the 2016 Annual Meeting Open Hearings that VCAP was a beneficial program and expressed appreciation for the NCWM effort. The Committee would like to thank them for their complimentary remarks.

530-2 Device Categories Subject to VCAP

Source: NTEP Committee

Item under Consideration:
NCWM must decide when to include the four remaining device categories subject to VCAP. The four remaining categories include: complete scales, automatic weighing systems, belt-conveyor scales and automatic bulk weighing systems. The Committee is working to develop a timeline to include the remaining categories.

Background/Discussion:
During the 2015 Interim and Annual Meetings, the Committee heard no comments about their announced intent to include the remaining categories in the near future. The Committee is strongly considering developing a timeline to include the four remaining device categories. This includes both Manufacturers and Private Label Holders of Certificates of Conformance (CC) for these Device Types.

- Complete Scales,*
- Automatic Weighing Systems,
- Belt-Conveyor Scales, and
- Automatic Bulk Weighing Systems.
During the 2014 Annual Meeting, the Committee heard objections from several companies to expanding VCAP to all device types. The NTEP Committee made the decision to pull back their proposal to include all remaining device categories under VCAP, only adding a timeline for indicating elements. During the 2015 Interim and Annual Meetings, the Committee heard testimony opposing their consideration to include weighing/load-receiving elements using load cells traceable to an NTEP certificate. The Committee received letters from Cardinal Scale, Fairbanks Scales, and Rice Lake Weighing Systems opposing the inclusion of all weighing/load-receiving elements primarily because such inclusion would be redundant, resulting in the unnecessary expense of additional VCAP testing. The SMA is also on record opposing the inclusion.

The NTEP Committee and NCWM Board has agreed not to include weighing/load receiving elements using NTEP load cells in the list of device categories subject to VCAP. However, the Board notified certificate holders that they have no intention of amending the table of devices subject to influence factor testing found in the Weighing Devices Section of NCWM Publication 14.

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

During the 2016 Interim Meeting, the Committee heard comments proposing that the remaining device categories be phased in over a period of several years. The Committee appreciates the input from the stakeholders. NTEP has developed the following proposed timelines to phase in the remaining device categories. The timelines identify the inclusion of the remaining device types into the NTEP, Verified Conformity Assessment Program. Each timeline includes both manufacturers and private label holders of Certificates of Conformance for the device type. Comments from affected stakeholders are welcomed and appreciated.

**Complete Scales:**
This device type includes, but is not limited to, Computing, Non-computing, Point of Sale, Crane, Monorail, and Grain Test Scales with weighing capacities up to and including 2000 lb. It is important to note that the use of an NTEP certified load cell does not qualify the scale for an exemption to the VCAP requirements.

<table>
<thead>
<tr>
<th>NCWM/NTEP VCAP Compliance Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Complete Scales</strong></td>
</tr>
<tr>
<td>NTEP notifies active CC holders of VCAP requirements</td>
</tr>
<tr>
<td>CC holder to have audit completed by authorized auditing company</td>
</tr>
<tr>
<td>Submit audit report to NCWM/NTEP</td>
</tr>
</tbody>
</table>
### Automatic Weighing Systems:

<table>
<thead>
<tr>
<th>NCWM/NTEP VCAP Compliance Timeline</th>
<th>Automatic Weighing Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTEP notifies active CC holders of VCAP requirements</td>
<td>Parent CC holders to put VCAP QM system in place</td>
</tr>
<tr>
<td>CC holder to have audit completed by authorized auditing company</td>
<td>CC holder to have audit completed by authorized auditing company</td>
</tr>
<tr>
<td>Submit audit report to NCWM/NTEP</td>
<td>Submit audit report to NCWM/NTEP</td>
</tr>
</tbody>
</table>

### Automatic Bulk Weighing Systems:

<table>
<thead>
<tr>
<th>NCWM/NTEP VCAP Compliance Timeline</th>
<th>Automatic Bulk Weighing Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTEP notifies active CC holders of VCAP requirements</td>
<td>Parent CC holders to put VCAP QM system in place</td>
</tr>
<tr>
<td>CC holder to have audit completed by authorized auditing company</td>
<td>CC holder to have audit completed by authorized auditing company</td>
</tr>
<tr>
<td>Submit audit report to NCWM/NTEP</td>
<td>Submit audit report to NCWM/NTEP</td>
</tr>
</tbody>
</table>
Belt-Conveyor Scales:

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

During the 2016 Annual Meeting, a scale company asked if the Committee had given any thought to expanding the VCAP audit to a five-year period. NTEP Administrative Policy Section 21.1.3.2.16 allows for a five-year cycle under specific conditions. The NTEP Committee has agreed to explore the issue and develop guidelines and recommendations for the certification bodies.

Another scale company requested that NTEP develop a unified spreadsheet for VCAP. The Committee agrees and has directed NTEP to develop the checklist (spreadsheet) for manufacturers’ and VCAP auditors’ use.

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

The Committee heard no additional objections to the timelines presented and plans to move forward. Comments from affected stakeholders are welcomed and appreciated.

530-3 VCAP Certification Bodies

Source: NTEP Committee

Item under Consideration:
Amend NCWM Publication 14, Administrative Policy as follows:

21.1.3.3.1. The selected Certification Body is to be accredited by ANSI-ASQ National Accreditation Board (ANAB) or by a Signatory of the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition. The ANSI, ANAB and ILAC are -ASQ--National Accreditation Board is the U.S. accreditation body bodies for management systems. ANAB and ILAC accredit certification bodies (CBs) for ISO 9001 quality management systems.
Background/Discussion:
During the 2015 NCWM Annual Meeting, the Committee informed membership that it plans to consider a recommended amendment to NTEP administrative policy. NTEP has learned that the two organizations (ANAB and ILAC) have a mutual recognition agreement. Researching this fact, NTEP contacted a U.S. Certification Body that is accredited by ANAB and a non-U.S. Certification Body accredited by ILAC and asked them if they would accept an audit report from the other Certification Body. Both responded they would providing that the Certification Body was accredited by a Signatory of the ILAC Mutual Recognition Arrangement, and the ISO/IEC 17025 standard is mentioned in the accreditation bodies recognized scope.

Considering the above information and from what NTEP has read on both the ANAB and ILAC Web sites, there is sufficient justification to accept the work of ILAC accredited auditing firms that are recognized to the ISO/IEC 17025 standard for testing.

As VCAP is expanded to include additional devices and more international manufacturers, it became evident that the limitation of requiring the Certification Body to be accredited by a U.S. based Accreditation Board created a limited pool of Certification Bodies and Auditors to pick from. In addition, NTEP was approached by a few non-U.S. based Certification Bodies requesting that NTEP recognize accreditation organizations such as the International Laboratory Accreditation Cooperation (ILAC).

During the 2016 Interim Meeting, the Committee heard no objections to the proposal. The NTEP Committee consequently authorized the change in the 2016 NCWM Publication 14.
THIS PAGE INTENTIONALLY LEFT BLANK