

**Multiple Dimension Measuring Device Work Group  
September 22-23, 2015 - Reynoldsburg, Ohio  
Meeting Summary**

i. Introductions and Welcome (R. Kennington).....	Error! Bookmark not defined.
ii. Reiteration of NTEP MDMD Work Group Mission (D. Flocken).....	Error! Bookmark not defined.
iii. Goal of this Meeting (D. Flocken).....	Error! Bookmark not defined.
iv. Report – 2015 NCWM Annual Meeting (D. Flocken).....	Error! Bookmark not defined.
v. Report – Recent Measurement Canada Type Evaluation Activity (I. Tremblay / P. Turgeon).....	Error! Bookmark not defined.
vi. Report – Recent NTEP MDMD Type Evaluation Activity (T. Buck).....	Error! Bookmark not defined.
Carry Over Items .....	3
1. Review meeting summary from May 2015 meeting .....	3
2. Review changes to NIST, Handbook 44, MDMD code since last meeting .....	3
3. Review changes to NCWM, Publication 14, MDMD Checklist .....	3
4. Review changes to Measurement Canada MDMD Code and Terms and Conditions .....	3
5. Review update to NTEP / MC Requirements Comparison Document .....	3
6. Review update to new draft revision of Publication 14, MDMD Checklist .....	3
7. Review results of the NTEP / MC MRA discussion at the 2015 NCWM Annual meeting.....	3
8. Report on progress from multi-interval operation requirements subgroup.....	4
9. Develop Form 15's identified in Requirements Comparison Document .....	5
NEW ITEMS .....	5
CLOSING DISCUSSION .....	6
10. Review meeting activities and conclusions .....	6
11. Define next steps (if needed) .....	6
12. Next meeting .....	6

---

## Glossary of Acronyms and Terms

---

Acronym	Term	Acronym	Term
NIST	National Institute of Standards and Technology	NTEP	National Type Evaluation Program
MDMD	Multiple Dimension Measuring Device	OIML	International Organization of Legal Metrology
MC	Measurement Canada	OWM	Office of Weights and Measures
MRA	Mutual Recognition Arrangement	R	Recommendation
NCWM	National Conference on Weights and Measures	WG	Work Group

i. **Introductions and Welcome** (*R. Kennington*)

ii. **Reiteration of NTEP MDMD Work Group Mission** (*D. Flocken*)

**Discussion:** Mr. Darrell Flocken (NTEP) reviewed the mission of the MDMD WG as stated during the October 2014 and May 2015 WG meeting for the benefit of all participants. The mission of the WG is to deal with specific issues concerning MDMDs; i.e., to consider the requirements in NIST Handbook 44 (HB44) and make sure NTEP has a type evaluation checklist in place to verify compliance with HB44 and influence factor testing. NTEP has been asked for years to consider encompassing MDMD's under the US / Canada Mutual Recognition Arrangement (MRA). At a July 2014 NCWM meeting Mr. Gilles Vinet (MC) announced Canada wishes to consider including MDMDs under the MRA umbrella with the US. MC has requested to be lead laboratory. The NCWM Board of Directors is seeking input from MDMD WG with respect to this issue.

iii. **Goal of this Meeting** (*D. Flocken*)

**Discussion:** The goal for this meeting is to continue to develop both the MC / NTEP Specification Comparisons document and the update of the NCWM Publication 14 Checklist. In addition, the WG agreed to revisit their current position related to the request to add MDMD instruments to the US / Canada MRA with MC being defined as the primary evaluation laboratory and the Measurement Canada Laboratory Evaluation Checklist being identified as the primary checklist.

iv. **Report – 2015 NCWM Annual Meeting** (*D. Flocken*)

**Discussion:** The NCWM 100<sup>th</sup> Annual Meeting was well attended and went well. No new items dealing with MDMD instruments were presented during the meeting. The one Specifications and Tolerances (S&T) Committee agenda item involving a device that can measure product in the bed of a truck or trailer was withdrawn from the S&T Committee's agenda in 2014 due to a lack of additional follow-up from the manufacturer and submitter of the item (i.e. LoadScan, Ltd., New Zealand)..

v. **Report – Activity of Measurement Canada** (*Pascal Turgeon*)

**Discussion:** Mr. Pascal Turgeon (MC) reported MC had not received or performed any MDMD evaluations since the WG's May, 2015 meeting. Mr. Turgeon reported that MC is still considering the adoption of the OMIL R129 standard; however, no changes in this activity have occurred since the October 2014 WG meeting.

vi. **Report – Recent NTEP MDMD Type Evaluation Activity** (*T. Buck, Ohio NTEP Laboratory*)

**Discussion:** It was reported that the Ohio NTEP laboratory had completed three evaluations on measuring devices since the WG's May, 2015 meeting. The three evaluations were-for amendments to existing certificates.

**Carry Over Items**

**1. Review meeting summary from May 2015 meeting**

A copy of the May 2015 Meeting Summary can be downloaded at [www.ncwm.net/ntep/sectors/mdmd/archive](http://www.ncwm.net/ntep/sectors/mdmd/archive).

**2. Review changes to NIST, Handbook 44, MDMD code since last meeting**

No changes to HB44 have been made since the WG's May 2015 meeting.

**3. Review changes to NCWM, Publication 14, MDMD Checklist**

No changes to Publication 14, MDMD Checklist have been made other than those agreed to during the WG's May 2015 meeting. See Item 6 for more details.

**4. Review changes to Measurement Canada MDMD Code and Terms and Conditions**

Mr. Pascal Turgeon (MC) reported that there were no changes to these documents since the WG's May 2015 meeting.

**5. Review update to NTEP / MC Requirements Comparison Document**

**Discussion:** Darrell Flocken (NTEP) reported that he and Mr. Turgeon (MC) worked together after the May 2015 meeting to update the MC reference numbers in the document. Mr. Turgeon confirmed the update but reported that some of the notes in the document were missed. Mr. Turgeon provided a copy of the documents with the location of the incorrect reference numbers. The document was reviewed for additional changes/updates based on the member's agreement to the additions to the MDMD Pub 14 Checklist.

**Recommendation:** Darrell Flocken agreed to correct the references to the MC documents and to update the Pub 14 column to add the proper section reference number. A copy of the updated document will be distributed with the meeting summary.

**6. Review update to new draft revision of Publication 14, MDMD Checklist**

**Discussion:** During the May 2015 WG meeting several proposed changes to the draft were discussed and agreed to by the WG. Members of the WG reviewed these changes for accuracy. During the review, the following items were discussed.

1. Section D in the Technical Policy contained the definitions of the terms "Longitudinal" and "Transverse". The members reviewed these definitions, which were copied from MC documentation. The discussions led to the recommendation that the second sentence in both definitions be removed and that the term "Vertical" and its definition be added.
2. It was pointed out that the "Amendments" list at the beginning of the document was missing some changes that were made during previous meeting. Mr. Darrell Flocken (NTEP) agreed to review all changes and correct the list.
3. During the review of the new test condition examples in the "Touching Objects Test," several members voiced their confusion on a few of the examples as there seemed to be a few duplicates. Mr. Pascal Turgeon (MC)

contacted the MC Laboratory and learned that there was an error in line 8 of the test sequence. The error was corrected.

4. A few editorial changes were suggested and made.

**Recommendation:** The members agreed that after completing the changes mentioned above, the document will be ready to submit to the NTEP Committee for adoption and inclusion into the 2016 edition of Publication 14. Mr. Flocken agreed to make the changes and email the revised document to the members for a review and explained that there is a November 1<sup>st</sup> deadline to submit the document or there will be an additional one year delay getting it published.

## 7. Review results of the NTEP / MC Mutual Recognition Agreement discussion at the 2015 NCWM Annual meeting

**Discussion:** Mr. Jim Truex (NTEP Administrator) was present and opened this discussion. Mr. Truex provided background information on how the NTEP Committee reached their recommendation during the NCWM Annual Meeting in July.

At the conclusion of his comments Mr. Truex left the meeting and the members continued their discussion on this matter. Refer to Items 7.a and 7.b for the specifics of the discussion.

### a. Recommendation for the MC Checklist to be primary evaluation document

**Discussion:** During their May 2015 meeting the WG recommended to the NCWM Board of Directors that the MC checklist not be the primary document for the evaluation of MDMDs and that each country adopt its own checklist.

As reported by Mr. Truex, the NCWM NTEP Committee accepted this recommendation and recommended that the WG continue updating the current evaluation checklist in NCWM, Publication 14. Refer to Item 6 of this meeting summary for the current status of the checklist update.

### b. Recommendation for MC to be primary evaluation laboratory

**Discussion:** At the suggestion of Mr. Jim Truex (NTEP Administrator), the WG revisited this item to consider its current position.

The members of the Work Group again voiced their concern regarding the impact of this recommendation on the current work load of the Ohio NTEP Laboratory, the potential loss of expertise in MDMD evaluations, and the time it takes to obtain the a certificate through the MC lab due to a backlog of evaluations and custom issues. Mr. Pascal Turgeon (MC) commented on the items by reporting that MC will send the test data to NTEP within a few days of the completion of the actual evaluation. This will allow NTEP to issue an NTEP CC while the test data is also being reviewed and processed by MC personnel. Mr. Turgeon also commented that it is clear that at some time in the future, the exclusiveness of the MC Laboratory could be removed. He also reminded everyone that the device type (i.e., MDMDs) could be removed from the MRA at any time.

The WG continued the discussion and agreed to revise its current position. The revised recommendation/position of the WG is provided below. Once the revised position was drafted and reviewed by all members, the chairman asked if any member disagrees; the Ohio NTEP Laboratory voiced their disagreement. No other objection was heard and the recommendation was made to forward the revised position to the NCWM NTEP Committee. A copy of the recommendation was sent to Mr. Truex on September 23<sup>rd</sup> so that it could be presented at the NCWM Board of Directors Fall Meeting the following week.

**Recommendation:**

*The WG agrees to adding MDMD devices to the MRA and assign MC as the primary evaluation laboratory providing:*

1. *Separate evaluation checklists are used and maintained by NTEP and MC Laboratories.*
2. *A specification comparison document is maintained which identifies differences in specifications that require separate testing.*
3. *A commitment of the NTEP and MC labs to work together to reach a position where test data can be shared in both directions, eliminating the need for there to be a primary laboratory, thus supporting the existing wording in Section 4 of the current MRA. For example:*
  - a. *Test Standards and Equipment*
  - b. *Checklist Specific Training (Knowledge of country specific requirements.)*
  - c. *A goal of reaching this objective by the 2021 renewal of the MRA.*
4. *A request that NTEP and MC review internal processes with the goal of a quick turnaround of test results and reducing the overall time between application and certificate issuance.*

#### **5. Report on progress from multi-interval operation requirements subgroup**

**Discussion:** The members of the WG heard from Mr. Richard Harshman (NIST OWM) that an NCWM Form 15 proposal was submitted to the NCWM on behalf of the WG for consideration by the four regional weights measures associations during their fall 2015 meetings. The proposal, drafted as agreed by the WG at their May 2015 meeting, recommends changes to the HB 44 MDMD Code to address the use of multi-intervals in two or more partial measuring ranges within the same axis of an MDMD. Mr. Harshman noted that the proposal was submitted in time that all four regional associations should consider it during their fall 2015 meetings and with the recommendation that it be a voting item.

#### **6. Develop Form 15's identified in Requirements Comparison Document**

**Discussion:** The WG developed an NCWM Form 15 proposal for submittal to the NCWM for consideration by the regional weights and measures associations during their fall 2015 meetings. The proposal recommends a change to the MDMD Code of HB44 to include the requirement that all axes have the same unit of measure.

#### **NEW ITEMS**

Two new items were introduced during the meeting.

1. Mr. Kennington (WG Chair) led a discussion on whether or not the WG should request to be reassigned as an NTEP Sector. Mr. Flocken explained that the only difference between a WG and a Sector is that for a Sector the travel expenses for one evaluator from each authorized laboratory are paid for by NTEP. However, since the Ohio Laboratory is the only NTEP authorized laboratory to perform evaluations on MDMD devices and all recent WG Meeting have been held at the Ohio Laboratory, there is no increased benefit of becoming an NTEP Sector. Mr. Kennington recommended that the group not request reassignment and remain as a Work Group.
  2. A proposal was presented to allow additional locations for some MDMD marking requirements. This request is due to smaller sized devices. The members agreed, an NCWM Form 15 was developed by the WG and will be submitted to the NCWM for consideration by the various regional weights and measures associations when they meet in the fall 2015.
2. A suggestion was made that a letter stating the WG's position on the addition of the MDMD devices to the US/Canada MRA be drafted by Mr. Kennington and distributed to the WG via email by December 1, 2015. A conference call is scheduled in December 2015 to review the contents of the letter and determine if the letter is to come from the WG representing all member companies or to be submitted by each member company individually. The letter will be

addressed to the members of the NTEP Committee. In addition, during the call the members will coordinate attendance to the January 2016 NCWM Interim Meeting to show support for the WG position. The WG discussed the possibility of asking the SMA to develop a statement supporting the position. Russ Vires (Mettler Toledo) mentioned that he would be attending the SMA's November meeting and would make this suggestion. Based on Mr. Vires comment, the WG decided to not make a formal request to the SMA.

#### **CLOSING DISCUSSION**

##### **7. Review meeting activities and conclusions**

##### **8. Define next steps (if needed)**

##### **9. Next meeting**

Members of the WG discussed meeting frequency and agreed that due to the MRA activity, they would meet again in approximately six months, on April 26 – 27, 2016 at the Ohio NTEP Laboratory. It is felt that at the conclusion of the April 2016 meeting, the meeting frequency would be changed to an annual time frame.