

**Multiple Dimension Measuring Device Work Group  
December 7-8, 2010 - Reynoldsburg, Ohio  
Meeting Agenda**

**Agenda Item Page**

<b>i. Welcome/Introductions .....</b>	<b>3</b>
<b>ii. MDMD group Mission .....</b>	<b>3</b>
<b>iii. Report of Activity at 2010 NCWM Annual Meeting .....</b>	<b>3</b>
<b>iv. Report of Activity from Measurement Canada .....</b>	<b>3</b>
<b>v. Report on Recent NTEP MDMD Type Evaluation Activity.....</b>	<b>3</b>
<b>vi. Report on NIST MDMD Standard Development .....</b>	<b>3</b>
<b>vii. Report on last MDMD meeting .....</b>	<b>3</b>

**CARRYOVER ITEMS**

<b>1. Review MDMD meeting minutes .....</b>	
<b>2. Review MDMD terminology .....</b>	
<b>3. Review MDMD irregular specifications .....</b>	
<b>4. Review MDMD HB -44 language .....</b>	
<b>5. Review MDMD PUB 14 changes .....</b>	

**NEW ITEMS**

<b>6. MDMD Mutual Recognition with Canada .....</b>	
<b>7. Next Meeting.....</b>	

**Multiple Dimension Measuring Device Work Group  
December 7-8, 2010 - Reynoldsburg, Ohio  
Meeting Agenda**

**Schedule**

Tuesday, December 7, 2010

- 8:00 AM Meeting Call to Order (R. Kennington)
- i. Introductions and welcome of new Group members
  - ii. Reiteration of NTETC MDMD group Mission (J. Truex)
- 8:30 AM Status Reports
- iii. Report – 2010 NCWM Annual Meeting (J. Truex)
  - iv. Report – Activity of Measurement Canada (D. Hutchinson)
  - v. Report – Recent NTEP MDMD Type Evaluation Activity (J. Truex / M. Kelley)
  - vi. Report – NIST MDMD Standard Development ( )
- 9:30 AM Break (15 min.)
- 9:45 AM Work session - Carryover Items
- 1. Review MDMD meeting minutes
- 10:00 AM Work session - Carryover Items
- 2. Review MDMD terminology
- 10:45 AM Carryover Items (continued)
- 3. Review MDMD irregular specifications
- 12:00 PM Lunch Break (1 hour)
- 1:00 PM – New Items
- 6. MDMD Mutual Recognition with Canada
- 3:00 PM – Break (15 min.)
- 3:15 PM – New Items (continued)
- 5:00 PM – Adjourn for the day

Wednesday December 8, 2010

- 8:00 AM Continue Work Session - Carryover Items
- 4. Review MDMD HB -44 language
- 10:00 AM Break (15 min.)
- 10:15 AM Carryover Items (continued)
- 12:00 PM Lunch Break (1 hour)
- 1:00 PM Work Session – New Items
- 5. Review MDMD PUB 14 changes
  - 7. Next Meeting
- 3:00 PM – Break (15 min.)
- 3:15 PM – Work Session
- This time is reserved for revisiting items requiring additional attention and any unscheduled items brought to the Group for consideration.**
- 5:00 PM – Adjourn

**Multiple Dimension Measuring Device Work Group  
December 7-8, 2010 - Reynoldsburg, Ohio  
Meeting Agenda**

*Note: topic times are approximate and merely included as a rough guideline to aid in maintaining meeting pace; some issues will invariably involve more detailed discussion than others.*

**CARRYOVER ITEMS**

**1. Review MDMD meeting minutes**

The MDMD Working Group met in Daytona Beach on Jan 14<sup>th</sup> and 15<sup>th</sup> (2009).

The main topics discussed were:

1. MC requirement update
2. HB-44 clarifications
3. Protrusions, and how they apply to Irregular shaped objects
4. PUB 14 updates

Most of the time was spent on protrusion definitions.

Attached are several documents:

1. Steve Cook's meeting notes. These include the proposed HB-44 clarifications, proposed protrusion language for irregulars, and a MC update.
2. Mark Schwartz provided a document showing OIML Irregular Shape testing. One image shows a protrusion test object.
3. Scott Davidson provided an evaluation of the MC test procedures. He identified which sections are currently addressed in PUB 14 and other sections which may need to be added.

Objectives:

1. We would like to work on PUB 14 to make sure that it is current, and reflects the test procedures being used by MC and the Ohio Lab.
2. Continue development of regulations, definitions, and test procedures for irregulars.

The action items from the meeting are summarized as:

**Action Items:**

1. Pub 14: SC to work of Pub 14 for 2009 in preparation for a mid Feb conference Call. Whole group to review redline draft by Mar 1, 2009.
2. Protrusions:
  1. SC to start to draft language for H44 to submit to the Sectors. MT (Darrell and Scott) to develop form 15 justification language. Due date for review by May 1.
  2. Industry to check practices on existing devices on how the devices evaluate protrusions. (ASI, Sick, Mettler-Toledo)
3. DRAFT test objects and tools guidelines for the May meeting by:
  - Protrusions

**Multiple Dimension Measuring Device Work Group  
December 7-8, 2010 - Reynoldsburg, Ohio  
Meeting Agenda**

- Other hexahedrons
- 4. Nate and SC to work on graphics for irregular objects by May 2009 (MC and ASI to provide additional examples.)

We would like to propose a May 20-21 follow-up meeting in Reynoldsburg OH. Please let me know if this will be acceptable.

**2. Review MDMD terminology**

*Source:* MDMD Work Group - UPS

*Background /Discussion:* Discuss terminology for cuboids vs. irregulars including: protrusion, cuboid (is there a consistent mathematical equation used by vendors), what should be included/excluded in each of these measurements.

*Recommendation:*

*Conclusion:*

*Status:*

**3. Review MDMD irregular specifications**

*Source:* MDMD Work Group – SICK & Accusort

*Background /Discussion:*

*Recommendation:*

*Conclusion:*

*Status:*

**4. Review MDMD HB -44 language**

*Source:* MDMD Work Group

*Background /Discussion:*

*Recommendation:*

**Multiple Dimension Measuring Device Work Group  
December 7-8, 2010 - Reynoldsburg, Ohio  
Meeting Agenda**

**Conclusion:**

**Status:**

**5. Review MDMD PUB 14 changes**

**Source:** MDMD Work Group

**Background /Discussion:** Review/Edit proposed test procedures for irregulars. Review select chapters for consistency with HB-44 and reconcile with current test procedures.

**Recommendation:**

Items need to be added to Pub 14 based on changes to HB44.

1. Table S.1.4.a needs to be amended as: Materials, shapes, structures, combination of object dimensions, **speed, spacing, minimum protrusion size**, or object orientations that are inappropriate for the device or those that are appropriate.
2. WG need to develop a recommendation for the new requirement in S.1.5.2.
3. The WG also should go through the other new N paragraphs to see if anything needs to be added or amended.
4. For S&T Item 358-2, language **needs to be developed in Pub for the new paragraph S.1.2.5. Devices Capable of Measuring Irregularly-Shaped Objects.** - (division size must be the same for the length axis, width axis and may be different for the height axis provided that electronic rotation of the object to determine the smallest hexahedron is calculated in only a two dimension horizontal plane.)

**2. Design of Indicating or Recording Elements and of Recorded Representations**

**Code Reference:** S.1., S.1.2., S.1.3, S.1.4., S.1.5., **S.1.5.2.,** S.1.6., S.1.7., S.1.8., and S.1.10.

- 2.5. The value of the device division "d" expressed in a unit of dimension shall be presented in a decimal format with the value of the division expressed as: (Code Reference S.1.5.)
- |   |     |    |     |
|---|-----|----|-----|
| (a) 1, 2, or 5; or  | Yes | No | N/A |
| (b) a decimal multiple or submultiple of 1, 2, or 5; or   | Yes | No | N/A |
| (c) a binary submultiple of a specific inch-pound unit of measure.<br>Examples: device divisions may be 0.01, 0.02, 0.05; or 0.5; 1,2, or 5; 10,20, 50 or 100; .25, .125, .0625, etc. | Yes | No | N/A |

**Multiple Dimension Measuring Device Work Group  
December 7-8, 2010 - Reynoldsburg, Ohio  
Meeting Agenda**

- 2.5.1. Devices used in Indirect Sales (Code Reference S.1.5.1.) In addition to the values specified above, the value of the division on a system used in indirect sales may be 0.3 inches or 0.4 inches.

The value of the division is 0.3 or 0.4.

- |                      |  |                          |
|----------------------|--|--------------------------|
| <b><u>2.5.2.</u></b> | <b><u>For devices capable of measuring irregularly shaped objects, the value of the division size (d) shall be the same for the length axis (x) and the width axis (y) and may be different for the height axis (z), provided that electronic rotation of the object to determine the smallest hexahedron is calculated in only a two-dimension horizontal plane, retaining the stable side plane as the bottom of the hexahedron.</u></b> | <b><u>Yes No N/A</u></b> |
|----------------------|--|--------------------------|

**Conclusion:**

**Status:**

**Multiple Dimension Measuring Device Work Group  
December 7-8, 2010 - Reynoldsburg, Ohio  
Meeting Agenda**

**NEW ITEMS**

**6. MDMD and the Mutual Recognition Agreement with Canada**

**Source:** NTEP Administrator

**Background /Discussion:** The NCWM Board of Directors has directed NTEP to explore the possibility of expanding the scope of the NCWM/Canada Mutual Recognition Agreement (MRA) to include Multiple Dimension Measuring Devices. Measurement Canada (MC) has agreed to engage in discussions towards expanding the scope of the MRA. Key elements of this consideration are to discuss, develop and identify 1) the impact to each country, 2) the pros/cons, and 3) a list of the difference in requirements and procedures between the two countries. Once these tasks are completed expansion of the MRA must be evaluated and agreed upon by MC and the NCWM.

**Recommendation:** The WG is asked to identify the different checklist requirements and test procedures, US/NTEP vs MC, for MDMDs.

**Conclusion:**

**Status:**

**7. Next meeting**

The Group should maintain a yearly schedule. The NTEP Administrator will determine when the next meeting is possible.