August 2002

Remanufactured Device Guidelines Accepted/New Liquid Measuring Devices and Vehicle-Tank Meters Tolerances

By: Juana Williams

The NCWM voted to accept guidelines to aid the field official, equipment manufacturer and remanufacturer, and service industry in determining which devices must meet NIST Handbook 44 General Code paragraph G-S.1.1. Remanufactured Devices and Remanufactured Main Elements marking requirements. A new definition for "element" was also adopted to clarify which portions of a device are affected by G-S.1.1. requirements. Overwhelming opposition was heard on proposed changes made earlier this year to the guidelines. In response to those unfavorable comments, the guidelines were modified to be consistent with the original Remanufactured Devices Task Force's language.

The guidelines do not include every type of work performed by remanufacturers and the service industry, but do include some of the more common changes made to devices in service. The tables of examples provide guidance on whether or not a device is remanufactured or repaired, and whether or not the device requires a remanufacturer's label.

The guidelines will supplement Handbook 44, but will not become part of the Handbook. The guidelines will be posted on the NIST Weights and Measures website under the 2002 S&T Final Report. The S&T Committee also recommended posting the guidelines on the NCWM website and making them readily available for easy reference in documents such as NIST Handbook 112, "Examination Procedure Outlines for Commercial Weighing and Measuring Devices, A Manual for Weights and Measures Officials." All proposals for new guidelines or modifications to existing guidelines should be submitted through the NTETC Sectors.

New Liquid Measuring Devices and Vehicle-Tank Meters Tolerances

The NCWM voted to replace existing tolerance tables in the Liquid-Measuring Devices (LMD) and Vehicle-Tank Meters (VTM) Codes with a single table of tolerances based on the device's accuracy class. Devices are designated with an accuracy class that is based on the application where the device is in use (loading rack, etc.) or the commodity being measured. The tolerances for each accuracy class are a percentage of the test quantity for drafts greater than ten gallons; however, the tolerances for 5- and 10-gallon test drafts in cubic inches are retained. A similar table of tolerances already exists in the Mass Flow Meters Code.

This item first appeared on the 1999 S&T Committee agenda as a proposal to redefine a "retail device." Effective January 1, 2003, tolerances for LMDs and VTMs are no longer based on whether these devices are used in retail or wholesale applications. The

definition of “retail device” is a reoccurring issue on the S&T Committee agenda and remains as a carryover item for 2003. A proposal to modify the tolerances for the remaining liquid and vapor measuring devices in NIST Handbook 44 Section 3 also becomes a carryover item on the 2003 agenda.

During the 2002 NCWM Annual Meeting, changes were made to the vehicle-tank meter Accuracy Class 0.3 acceptance and special test tolerances to reflect a consensus of officials and industry representatives. During the 2002 Annual Meeting, some members of the S&T Committee believed the proposed tolerances were far less stringent than existing tolerances for some applications and developed alternate tolerances for Accuracy Class 0.3 devices. Weights and measures officials believed that the alternate proposal developed at the 2002 Annual Meeting included tolerances that were too stringent. Meter manufacturers were concerned because alternate proposed tolerances would be difficult to attain during split-compartment tests. The tolerances adopted for the Accuracy Class 0.3 vehicle-tank meters are 0.15 percent acceptance, 0.3 percent maintenance, and 0.45 percent special test tolerances, which all parties agreed are attainable and closer to existing tolerances.

The adoption of a single table of tolerances for LMDs and VTMs aligns the codes with international requirements and sets the stage for holding devices used in similar applications to uniform tolerances.