

Foreword

Handbook 44 was first published in 1949, having been preceded by similar handbooks of various designations and in several forms, beginning in 1918.

Handbook 44 is published in its entirety each year following the Annual Meeting of the National Conference on Weights and Measures (NCWM). The Committee on Specifications and Tolerances of the NCWM developed the 2013 Edition with the assistance of the Weights and Measures Division (WMD) of the National Institute of Standards and Technology (NIST). This handbook includes amendments endorsed by the 97th National Conference on Weights and Measures during its Annual Meeting in 2012.

NIST has a statutory responsibility for “cooperation with the states in securing uniformity of weights and measures laws and methods of inspection.” In partial fulfillment of this responsibility, NIST is pleased to publish these recommendations of the NCWM.

This handbook conforms to the concept of primary use of SI (metric) measurements recommended in the Omnibus Trade and Competitiveness Act of 1988 by citing SI units before inch-pound units where both units appear together and placing separate sections containing requirements in SI units before corresponding sections containing requirements in inch-pound units. In some cases, however, trade practice is currently restricted to the use of inch-pound units; therefore, some requirements in this handbook will continue to specify only inch-pound units until the NCWM achieves a broad consensus on the permitted SI units.

In accord with NIST policy, the meter/liter spellings are used in this document. However, the metre/litre spellings are acceptable, and are preferred by the NCWM.

It should be noted that a space has been inserted instead of commas in all numerical values greater than 9999 in this document, following a growing practice, originating in tabular work, to use spaces to separate large numbers into groups of three digits. This avoids conflict with the practice in many countries to use the comma as a decimal marker.

You are invited to provide online feedback regarding this document
at: <https://www.surveymonkey.com/s/customer-satisfaction-pub>
or by e-mail to: owm@nist.gov.

**Committee on Specifications and Tolerances
of the 97th Conference**

Steve Giguere, Maine
Kenneth Ramsburg, Maryland
Paul Moyer, Nebraska
Brett Gurney, Utah
Mahesh Albuquerque, Colorado

Ted Kingsbury, Measurement Canada, Technical Advisor
Tina Butcher, NIST, Technical Advisor
Rick Harshman, NIST, Technical Advisor

Past Chairmen of the Committee

<u>Conference</u>	<u>Chairman</u>	<u>Conference</u>	<u>Chairman</u>
8-11	L.A. Fischer, NBS	70	D.A. Guensler, CA
12-28	F.S. Holbrook, NBS	71-72	F. Gerk, NM
29-38	J.P. McBride, MA	73	K. Butcher, MD
39-42	R.E. Meek, IN	74	R. Andersen, NY
43-44	J.E. Brenton, CA	75	D. Watson, TX
45-47	C.L. Jackson, WI	76	J. Truex, OH
48	T.C. Harris, VA	77-78	C. Carroll, MA
49-50	R.E. Meek, IN	79	J. Jeffries, FL
51-52	G.L. Johnson, KY	80	R. Suiter, NE
53	H.D. Robinson, ME	81	G. West, NM
54-55	R. Rebuffo, NE	82-83	R. Murdock, NC
56-57	D.E. Konsoer, WI	84	D. Brown, IA
58	J.C. Mays, FL	85	M. Hopper, CA
59	T.F. Brink, VT	86	G. Shefcheck, OR
60	W.S. Watson, CA	87	M. Coyne, MA
61	K.J. Simila, OR	88	R. Wotthlie, MD
62	W.E. Czaia, MN	89	C. VanBuren, MI
63	M.L. Kinlaw, NC	90	J. Kane, MT
64	J.A. Bird, NJ	91	C. Cooney, OR
65	D.A. Guensler, CA	92	M. Sikula, NY
66	G.A. Delano, MT	93	C. Fulmer, SC
67	F.C. Nagele, MI	94	T. R. Lucas, OH
68	L.H. DeGrange, MD	95	B. Saum, San Luis Obispo Co., CA
69	S.A. Colbrook, IL	96	S. Giguere, ME