



WEIGHLOG

SCALE MANUFACTURERS ASSOCIATION, INC.
6724 Lone Oak Blvd. • Naples, Florida 34109
<http://www.scalemanufacturers.org>

WINTER 2007

SMA Member Companies

REGULAR MEMBERS

Avery Weigh-Tronix, Inc.

Cardinal Scale Manufacturing Company

Fancor, Inc.

ITW Food Equipment Group

Hottinger Baldwin Measurements

Mettler-Toledo, Inc.

Sartorius Corporation

Systems Associates, Inc.

Vishay Transducers

ASSOCIATE MEMBERS

A&D Engineering, Inc.

Flintec, Inc.

NCR

Rice Lake Weighing Systems



SMA FALL MEETING

One of the milestones witnessed at the recently completed SMA Fall Meeting was the presentation of a Certificate of Recertification of the SMA T.N.8 Production Meets Type (PMT) Conformity Assessment Program of Mettler-Toledo on the occasion of the successful completion of the Five Year Re-Audit of their program. Todd Manifold, Mettler-Toledo's General Manager, accepted the award on behalf of his company.



SMA Vice President, Stephen Langford presents Todd Manifold Mettler-Toledo's certificate of successful completion of their SMA PMT Program's Five Year Re-Certification Audit.



From 2000 to 2001, to address the apparent problem of Production Meets Type in the NTEP program, the SMA developed the T.N.8 Production Meets Type Conformity Assessment Program and offered it to members and non-members as a way of demonstrating to regulators and customers alike, their ability to continually produce the test products that were certified under the National Type Evaluation Program by the National Conference on Weights and Measures.



The SMA Fall Meeting convened, for the first time, at the Chicago O'Hare Hilton Hotel from Wednesday, November 14 through Friday morning, November 16, 2007. The hotel, in some ways, was a star of the meeting. It proved to be a very convenient venue for the members and guests to travel to. The airport is easy to fly or drive to and the hotel is within a relatively short above or below ground walking distance from the terminals and parking lot. The hotel services and accommodations were very well organized to provide organizations a very efficient conference center experience and a comfortable working environment.

The Fall Meeting itself went very well. Carol P. Fulmer, Director of Weights and Measures, South Carolina Department of Agriculture and Chair of the NCWM S&T Committee, accompanied by Stephen E. Cook, NCWM Technical Advisor, NIST/WMD, visited with the SMA Technical Committee on Wednesday. They worked through the draft agenda items of the S&T Committee for the upcoming NCWM Interim Meeting in January. The give and take between Carol, Steve, and the SMA Members provided an excellent opportunity for all to hone in on the issues and discuss any potential problems with the proposals. All in all it was an excellent session and SMA thanks Carol and Steve for taking the time out of their busy schedules to visit with us.



Carroll Fulmer and Steve Cook at the SMA Technical Committee Meeting.

At our General Business Session on Friday, we were honored to host three distinguished members of the regulatory community to our meeting.

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Kimberly MacLaren

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L-R Jonelle Brent and Judy Cardin listen to Carol Hockert's presentation at the SMA Fall Meeting.

Jonelle Brent, Bureau Chief, Illinois Department of Agriculture Bureau of Weights and Measures, welcomed the SMA to Illinois. She then presented an excellent description of the Illinois weights and measures programs, staffing, performance and priorities going forward.

Carol Hockert, Chief, Weights and Measures Division, National Institute of Standards and Technology, visited us again. Since she assumed her position in 2006, she has attended all of our meetings and has

been a great supporter of our association. She provided us an update on NIST's activities. Perhaps not fully appreciated is that, in addition to monitoring and promoting U.S. weights and measures activities, her office is the U.S. Secretariat for 15 OIML TC/SCs and 20 documents. They have processed nine OIML drafts in the past year. With regard to promotion of U.S. W&M activities, they are trying to build a model for national compliance data collection and are actively soliciting state and industry suggestions as to what data, if any, would be useful to collect. If they do collect any compliance data, it must be comparable data i.e. same devices, same tests, from state and local jurisdictions. Any readers with ideas on this topic should contact her office directly. Her goals for 2008 are to increase training opportunities, improve the web site and associated databases, and to begin collecting some national data. She will continue to pursue a U.S. R76 lab capability and would appreciate any non-financial support that the industry could provide towards that end.



Judy Cardin addresses the SMA Fall Meeting's General Business Session.

Judy Cardin, Director, Weights and Measures Division, Wisconsin Department of Agriculture, and Chairman, National Conference on Weights and Measures, provided an overview of the status of major items of interest regarding the NCWM and NTEP. A major Board of Directors priority is to improve the efficiency and effectiveness of the conference. They are actively seeking ways to increase membership and attendance at meetings. They will continue to conduct

marketplace surveys and the next one will probably be on a device. With regard to the VCAP, they hope to have a pilot program up and operating, probably for load cells, before the 2008 Interim Meeting and plan to have VCAP in place by the end of 2008.

The SMA Technical Committee provided the membership meeting a set of proposed SMA Positions on the agenda of the NCWM S&T Committee for the upcoming NCWM Interim Meeting in January, 2008. The membership discussed the proposals and voted unanimously to adopt the SMA Positions reproduced on pages 6-8.

Additionally, the Technical Committee continued work on two SMA documents:

A revision of the much-used SMA Publication "**RFI/EMI Field Test Procedures**" should be ready for member company approval by the 2008 Annual Meeting in April.

Part Two of the SMA Standard for Load Cells "**Load Cell Application and Test Guideline**" should also be completed by the Annual Meeting though it may not be ready for final approval by that time. This document is a companion to the SMA Standard "**SMA Standard for Load Cell Specifications**", which has been published since 2000, and which is available for free download at the SMA Web Site.



TECHNICAL COMMITTEE

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Darrell Flocken
Mettler-Toledo, Inc.

Vice Chair

Lou Straub
Fancor, Inc.

COMMITTEE MEMBERS

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*Cardinal Scale
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Darrell Flocken
Mettler-Toledo, Inc.

Leon Lammers
Avery Weigh-Tronix, Inc.

TECHNICAL ASSISTANT

Phil Hannigan
SMA

Ray Bales, QC Manager at Avery Weigh-Tronix, passed away on October 12, 2007 after an almost three year fight against anaplastic thyroid cancer. He worked for the company from 1976 thru 2005 when he retired due to ill health. Ray was 62 when he died.



Among other accomplishments, Ray was an honored Viet Nam Veteran who served in the U.S. Army and Special Forces from 1966 thru 1972.

During his career with Avery Weigh-Tronix, Ray was extremely supportive of SMA activities through the years and, most recently, provided outstanding support in the conceptualization and development of the SMA Production Meets Type program. He leaves behind his wife, Mary Lynn Bales, two sons and their families, as well as a lot of friends both locally and within our Association. Rest in peace, Ray.

NTEP Directors Questions for 2007 Published

The NTEP Directors Questions for 2007 have been compiled and published on the SMA web site's Home Page (scalemanufacturers.org)

Since 1997, the Scale Manufacturers Association and the National Conference on Weights and Measures have invited state directors attending their regional Weights and Measures association meetings to comment on a series of three to four questions regarding the NTEP program implementation in their jurisdictions. The candidate questions for each year have been solicited from SMA, NIST/OWM, NCWM, and State Directors. Those candidate questions are balloted and scored by degree of interest. The top three or four questions are then chosen as the questions for that year. In order to ascertain the degree of uniformity and interpretation of selected W&M practices, the same questions are asked at each regional meeting. The following questions were discussed in the 2007 round.

QUESTION ONE: Many states have "weighmaster" laws and/or regulations that govern the public weighing of vehicles, property, produce, commodities, or articles that are being bought or sold. Generally, a public weighmaster is required to keep and preserve for a period specified in the regulations a legible copy of each scale ticket issued by him or her. How long does a business/device owner have to maintain a copy in your state?

QUESTION TWO: Is your jurisdiction testing Class II balances that have the Prescription Counting Feature? Has your jurisdiction found any problems with these devices or do you have a problem with availability of the proper test weights to do the test?

QUESTION THREE: Handbook 44 has requirements for construction of a Vehicle Scale Pit. Does your State have additional requirements that are not in Handbook 44?

UPCOMING MEETINGS OF INTEREST TO SMA MEMBERS

NCWM 93rd Interim Meeting

Hyatt Regency,
Albuquerque, NM
January 27-30, 2008

SMA Annual Meeting

Sundial Beach and Golf Resort,
Sanibel Island, FL
April 16-18, 2008

CWMA Annual Meeting

Great Wolf Lodge
Kansas City, KS
May 4-7, 2008

NEWMA Annual Meeting

Holiday Inn Conference Center
Fishkill, NY
May 12-15, 2008

NCWM 93rd Annual Meeting

Sheraton Burlington Hotel &
Conference Center
Burlington, VT
July 13-17, 2008

WWMA Annual Meeting

Marriott
Anchorage, AK
September 7-11, 2008

CWMA Annual Meeting

Holiday Inn Rock Island Hotel &
Conference Center
Rock Island, IL
September 14-17, 2008

SWMA Interim Meeting

Doubletree Hotel Atlanta Airport
Atlanta, GA
October 5-8, 2008

NEWMA Interim Meeting

Springfield Sheraton Monarch
Springfield, MA
October 15-16, 2008

SMA Fall Meeting

Big Cedar Lodge
Ridgedale, MO
November 12-14, 2008

Handy List of Engineering Terminology

1. **A number of different approaches are being tried.** (We don't know where we're going, but we're moving.)
2. **Close project coordination.** (We should include someone else so we can spread any blame.)
3. **An extensive report is being prepared on a fresh approach to the problem.** (We just hired 3 guys. We'll let them kick it around for a while.)
4. **Major technological breakthrough.** (Back to the drawing board.)
5. **Customer satisfaction believed assured.** (We're so far behind schedule that the customer is happy to get anything at all from us.)
6. **Preliminary operational tests were inconclusive.** (The darn thing blew up when we threw the switch!)
7. **The test results were extremely gratifying.** (It works and boy are we surprised.)
8. **The entire concept will have to be abandoned.** (The only guy who understood the thing quit.)
9. **It is in the process.** (It is so wrapped up in red tape that the situation is almost hopeless.)
10. **We will look into it.** (By the time the wheel makes a full turn, we will assume you have forgotten about it.)
11. **Please note and initial.** (Let's spread the responsibility for this job.)
12. **Give us the benefit of your thinking.** (We'll listen to what you have to say as long as it doesn't interfere with what we have already done.)
13. **Give us your interpretation.** (Your warped opinion will be pitted against our good sense.)
14. **See me, or Let's discuss.** (Come down to my office, I'm lonesome.)
15. **All new.** (Parts not interchangeable with previous design.)
16. **Rugged.** (Too heavy to lift.)
17. **Lightweight.** (Lighter than rugged.)
18. **Years of development.** (Finally got one that worked.)
19. **Energy saving.** (Achieved when the power switch is off.)
20. **No maintenance.** (Impossible to fix!)

International Committee of Legal Metrology (CIML) Update

The 42nd CIML meeting was held in Shanghai, China on October 24-26, 2007. Some of the decisions of interest to SMA members include the following:

- They approved a proposal to revise *R 79 "Labelling requirements for pre-packaged products"*.
- They instructed TC 3/SC 5 to take account of comments expressed during the Meeting in the revision of *B-3 "OIML Certificate System for Measuring Instruments"*. and *B 10 "Framework for a Mutual Acceptance Arrangement on OIML Type Evaluations (MAA)"*. Additionally, the Committee strongly encouraged Member States and Corresponding Members to participate in the DoMCs.
- They approved the *Revision of R107-1 "Discontinuous totalizing automatic weighing instruments (totalizing hopper weighers). Part 1: Metrological and technical requirements – Tests"*; and the *Revision of R107-2 "Discontinuous totalizing automatic weighing instruments (totalizing hopper weighers). Part 2: Test report format"*.
- They awarded Dr. Charles Ehrlich a Letter of Appreciation in recognition of his outstanding contributions to legal metrology. See related story below.

Chuck Ehrlich Wins 2007 Wildhack Award



Dr. Charles D. Ehrlich

Dr. Charles D. (Chuck) Ehrlich was recently awarded the 2007 Wildhack Award at the NCSL International Workshop and Symposium. **NCSL International (National Conference of Standards Labs)** established the award in 1970 and named it for William Wildhack, a long-time employee of the National Bureau of Standards, who was instrumental in establishing the NCSL. It is the organization's highest award and is given to an individual or group of individuals for outstanding contributions to the field of metrology.

In addition to other work in support of standardization laboratories, he has, for over seven years, served on behalf of the U.S. Department of State as the U.S. member of the International Committee on Legal Metrology, which is the oversight body of the International Organization of Legal Metrology (OIML). He currently serves on the OIML Presidential Council, representing U.S. stakeholder interests. Of particular interest to SMA members is his role in the development and acceptance of the OIML Mutual Acceptance Arrangement (MAA), which provides a framework within which OIML member countries can confidently accept test data from other OIML member countries' laboratories when approving new devices for regulatory applications.

Additionally, at the **42nd Meeting of the International Committee of Legal Metrology (CIML)** in Shanghai, China, October 24-26, 2007, the committee awarded Dr. Ehrlich a Letter of Appreciation in recognition of his outstanding contributions to legal metrology.

We join with NIST and the members of the Weights and Measures Division in congratulating Chuck on his well-earned peer recognition of his good work in service to metrology and our industry.

Revised Handbook 44 Shift Test Procedures take effect January 1, 2008

The new Handbook 44 that takes effect on January 1, 2008 has a revised shift test. Shift tests are in HB 44 Section N.1.3 etc.

- The revised shift test requirements are applicable to platform scales with no more than four load supports;
- Shift test positions for small capacity scales (formerly bench and counter scales) are now the same as other platform scales with no more than four load supports;
- Shift test loads have been reduced for platform scales with no more than four load supports;
- The alternate "one-quarter nominal capacity test load centered . . . over each corner of the load-receiving element" is no longer a suitable alternate shift test for scales with a capacity up to 1000 lb; and
- Shift test requirements for railway, vehicle, and livestock scales with four load supports, monorail scales, and other scales listed as exceptions in revised paragraph N.1.3.7. (formerly N.1.3.8.) remain unchanged.

For questions about the revised shift test procedures in Handbook 44, contact Steve Cook by telephone at 301-975-4003 or by e-mail at steven.cook@nist.gov. Steve has a good article on the subject in the November 2007 Weights and Measures Quarterly. (<http://ts.nist.gov/WeightsAndMeasures/upload/wmquarterly1.pdf>)



**SMA Positions on the Interim Report
NCWM Specifications and Tolerances Committee
93rd NCWM Interim Meeting, January, 2008**

310 GENERAL CODE

310-1 G-S.8. – Provision for Sealing Electronic Adjustable Components

The SMA recognizes the need for clarification of G-S.8., and recommends the following wording to replace the current recommendation:

- *The device shall provide an indication that it is in the setup mode.
[*Nonretroactive as of January 1, 20XX.]*

Rationale: This is a simplified solution to the concern and is easier to implement.

310-2 Appendix D – Definition of Electronic Devices, Software-Based

The SMA supports the Software Sector's efforts but believe it is premature to place these definitions in HB 44. We recommend that this item be moved to developing items.

310-3 Appendix D – Definition of Equipment

No Position

320 SCALES

320-1 S.1.1.1.(b) Digital Indicating Elements

The SMA supports this item.

320-2 S.1.2.1. Weight Units and T.N.2.1. General

The SMA supports this item.

320-3 S.1.7. Capacity Indication, Weigh Ranges, and Weigh Units

The SMA opposes this item and believes that the current wording of paragraphs (a) and (b) sufficiently addresses the issue.

Rationale: We believe that items such as paragraph (c) lead to an open list of possible unacceptable designs.

320-4 S.2.1.5. Initial Zero-Setting Mechanism

The SMA supports this item.

320-5 S.2.4. Level-Indicating Means

The SMA supports this item. However, we recommend that in paragraph S.2.4.1., the words “three degrees or” should be deleted.

Rationale: This change would make all three references consistent.

320-6 Appendix D; Definitions for Tare Mechanism, Gross Weight Value, Net Weight, Net Weight Value, Tare, and Tare Weight Value

The SMA supports this item.

324 AUTOMATIC WEIGHING SYSTEMS

324-1 S.1.2. Value of Division Units and T.2.1. General

The SMA supports this item.

324-2 Appendix D; Definitions for Tare Mechanism, Gross Weight Value, Net Weight, Net Weight Value, Tare, and Tare Weight Value

The SMA supports this item.

360 OTHER ITEMS

Item 360-2: Developing Items

Part 1, Item 1 Scales: S.1.4.6. Height and Definition of Minimum Reading Distance, UR.2.10. Primary Indicating Elements Provided by the User, UR.2.11. Minimum Reading Distance and Definitions of Minimum Reading Distance and Primary Indications

SMA supports the Weighing Sector’s 2007 recommendation with the following changes:

S.1.4. Indicators

S.1.4.6. Direct Sale Primary Indications - Size and Character. Scales designed for direct sale applications with a capacity of 100 kg (200 lb) or less shall comply with the following;

(a) All indications shall be indicated ~~clearly and~~ simultaneously.

(b) All indications and associated descriptive markings (e.g., lb, kg, gross, tare, net, etc.) shall be presented in such a style of type or lettering as to be boldly, clearly, and conspicuously presented with respect to other type, lettering, or graphics and shall be at least 2 mm (~~3/32~~ 0.079 in) high.

(c) All indications and associated descriptive markings shall be in a color or shade that contrasts conspicuously with its background.

(d) All primary ~~numeric~~ indications displayed to the customer shall be at least 9.5 mm (~~0.4~~ 0.374 in) high.

(e) All units and descriptors shall be at least 2 mm (~~3/32~~ 0.079 in) high.

[Nonretroactive as of January 1, 200X]
(Added 200X)

Proposed definition and cross reference term to Handbook 44 Appendix D, for “primary indications” as follows:

primary indications. Weight or other ~~units~~ of measurement values that are displayed by a primary indicating element. ~~The primary indications~~ These values are used as the determining factor factors in arriving at the sale representation when the device is used commercially. (Examples of primary indications include the measurement value, unit price or count, and total price on instruments capable of price computing. Primary indications do not include indications from auxiliary indicating devices such as totalizing registers and pre-determined stop mechanisms.) [1.10], [2.20]
(Added 200X)

Part 5 Item 1 G-S.1. Identification – (Software)

The SMA supports the Software Sector’s efforts.