



State Directors' Breakfast  
Questions and Responses  
Regarding  
NTEP Issues  
2002

For the past several years, the Scale Manufacturers Association and the National Conference on Weights and Measures have hosted breakfast meetings at the regional Weights and Measures association venues throughout the year. We have published the 1997, 1998, 1999, 2000 and 2001 questions. They are available for review or download as a PDF File on the SMA Web Site at <http://www.scalemanufacturers.org>. This document covers the three questions asked at the four regional W&M Conferences in 2002.

In order to ascertain the degree of uniformity and interpretation of selected W&M practices, the same questions are asked at each regional meeting.

This document is a composite of the responses and is provided as a service by the Scale Manufacturers Association in support of the continuing education effort required to insure the success of the National Type Evaluation Program.

For a downloadable copy visit the SMA Web Site at  
<http://www.scalemanufacturers.org>.

**NOTE: There were no provisions made for capturing the comments made at the Northeast and Southern Weights and Measures Directors' Breakfasts in 2002.**

## 2002 STATE DIRECTORS' BREAKFAST NTEP QUESTIONS

**QUESTION ONE:** During a field inspection of a truck scale (Class III), it is found that an Original Equipment Manufacturer's load cells have been replaced with cells from another manufacturer. What Certificates of Conformance are looked at and what procedures are used to determine whether the scale is still covered by the manufacturer's CC? Page 1

**QUESTION TWO:** If the load cells are replaced with "remanufactured" cells, how do you determine that they were repaired / remanufactured by the OEM or his authorized agent? How do you detect if a load cell has been remanufactured? Page 4

**QUESTION THREE:** How does your jurisdiction interpret the Scales Code temperature range performance requirement in Handbook 44, T.N.8.1.1. (minus 10 degrees C to 40 degrees C (14 degrees F to 104 degrees F))? Do you consider it to be a field operational temperature range limit for the scale or do you treat it as a laboratory test requirement? Page 6

**QUESTION FOUR:** How does your jurisdiction conduct training for your W&M field staff and service agency technicians to insure proper initial installation of devices? On average, how many hours of training on this subject are conducted per inspector / technician a year? What kind of training assistance for initial verification would be the most helpful to your staff? Page 8

## State Directors' Breakfast Questions and Responses Regarding NTEP Issues

### QUESTION ONE - 2002:

During a field inspection of a truck scale (Class III), it is found that an Original Equipment Manufacturer's load cells have been replaced with cells from another manufacturer. What Certificates of Conformance are looked at and what procedures are used to determine whether the scale is still covered by the manufacturer's CC?

#### **Western Weights and Measures Association Responses:**

**W1** – If the scale has been inspected in the past, it is unlikely that the inspector will go under the scale to check the cells because of safety and limited access issues. If the scale is new or has been re-installed after a move, the appropriate CCs will be checked after completion of the inspection. We require a placed-in-service report which includes the CC numbers.

**W2** - If the scale technician sends in the placed-in-service report, the inspector will check the CC numbers and verify the operation of the scale. It is unlikely that the inspector will go under the scale to check the actual load cells.

**W3** – The inspector should always refer to the original certificate. If the certificate allows alternate compatible load cells, then any certified and compatible load cell may be used. If any modifications are required to install the new load cells, this changes the original device and it is no longer considered approved.

**W4** - Normally we do not look at cells that closely on new scales. We do have a lot of older scales that have been retrofitted with new cells and indicators. We depend on device performance to confirm metrological integrity.

#### **Central Weights and Measures Association Responses:**

**C2** – We check the manufacturer's Certificate of Conformance to verify proper v-min and other characteristics to ensure they are compatible with the application. It is difficult to know if the cells have been re-manufactured. We usually find out from the service personnel or scale owner. It is not easy to detect re-manufactured load cells.

**C2** – We verify that they are the same type of load cell (compression, beam, etc.) and compatible. It is hard to tell if a cell has been re-manufactured. We depend on the service personnel for this information.

**C3** – We first make certain that the load cell is compatible. We may allow single replacements of non-NTEP cells on pre-NTEP devices. It is quite difficult to determine if a cell has been re-manufactured.

**C4** – We use a checklist when determining load cell compatibility. We depend on the scale service technicians to advise us of load cell substitutions and have received good cooperation from service companies.

**C5** – We also use a checklist to verify that a substituted load cell is compatible with the original cell. We depend on service company personnel to notify us of when a cell has been replaced.

## State Directors' Breakfast Questions and Responses Regarding NTEP Issues

### **QUESTION ONE - 2002 ... continued**

**C6** – We make certain that the replacement cell is an acceptable replacement. We rarely learn if a cell is re-manufactured unless advised by a service agency. We are at the mercy of service personnel.

#### **Northeast Weights and Measures Association Responses:**

**No Record**

#### **Southern Weights and Measures Association Responses:**

**No Record**

## State Directors' Breakfast Questions and Responses Regarding NTEP Issues

### QUESTION TWO - 2002

If the load cells are replaced with “remanufactured” cells, how do you determine that they were repaired / remanufactured by the OEM or his authorized agent? How do you detect if a load cell has been remanufactured?

#### **Western Weights and Measures Association Responses:**

**W1** - We don't know. We know that there are independent companies that repair or remanufacture the load cells but they are difficult to identify.

**W2**- We have the same problem. In most cases you just don't know if the load cell has been remanufactured. Placed-in-service reports don't always give details on what was done, although we do try to verify what they have done. This, however, does not include going under the scale for an inspection.

**W3** – Unless a device is identified in some way as “remanufactured” or is missing required marking requirements, it is difficult for the field inspector to determine this without notification by the user or the installer. If remanufactured by other than the OEM or authorized agent, a new approval is required. CTEP has never received a type approval request for a remanufactured load cell nor a complaint.

**W4** – We have no way of knowing what has been installed. We can't always see the load cell nameplates even when you do go under the scale.

#### **Central Weights and Measures Association Responses:**

*Question not discussed*

#### **Northeast Weights and Measures Association Responses:**

**No Record**

#### **Southern Weights and Measures Association Responses:**

**No Record**

## State Directors' Breakfast Questions and Responses Regarding NTEP Issues

### QUESTION THREE - 2002

How does your jurisdiction interpret the Scales Code temperature range performance requirement in Handbook 44, T.N.8.1.1. (minus 10 degrees C to 40 degrees C (14 degrees F to 104 degrees F))? Do you consider it to be a field operational temperature range limit for the scale or do you treat it as a laboratory test requirement?

#### **Western Weights and Measures Association Responses:**

**W1** - Our main concern is whether the device works over the temperature range in which it is used. Therefore, we interpret it as a laboratory test requirement.

**W2** - The device would have to work within the extremes of the environment in which it is used. It is a laboratory test requirement.

**W3** – It is a temperature range that is verified in a lab but not necessarily a operating range.

**W4** - The device has to operate over its environmental range. It is a laboratory test requirement.

**W5** - The device must operate over the extremes of the environment in which it is used. It is a laboratory test requirement.

**W6** - We don't shut the device down when the ambient temperature falls outside this range. We consider it to be a laboratory test requirement.

**W7** – This is a laboratory test requirement. Devices that do not meet the requirements of Handbook 44, T.N.8 (Influence Factors) must be marked with the evaluated temperature range (See T.N.8.1.1. and T.N.8.1.2.). However, in field locations field officials would require the device to be used in a suitable environment.

**W8** - We consider it to be a laboratory test requirement.

**W9** – If the device is not marked, there is no limitation on the temperature range. If marked, then the device is limited to the marked range.

#### **Central Weights and Measures Association Responses:**

**C1** – We treat it as a laboratory test requirement.

**C2** – We haven't encountered this as a problem.

**C3** – We interpret it as a laboratory test requirement. The device must operate within the ambient conditions. It should operate properly over all conditions.

**C4** – We treat it as a laboratory requirement. If they're using it over a certain temperature range; we test it over that temperature range.

**C5** – It must be accurate if it's being used.

**C6** – We consider it a laboratory requirement but the scale must be accurate in adverse conditions.

**C7** – We don't consider it a field test. We see a lot of devices that have calibration changes over temperature.

# State Directors' Breakfast Questions and Responses Regarding NTEP Issues

**QUESTION THREE - 2002 ... continued**

**Northeast Weights and Measures Association**

**Responses:**

**No Record**

**Southern Weights and Measures Association**

**Responses:**

**No Record**

## State Directors' Breakfast Questions and Responses Regarding NTEP Issues

### QUESTION FOUR - 2002

How does your jurisdiction conduct training for your W&M field staff and service agency technicians to insure proper initial installation of devices? On average, how many hours of training on this subject are conducted per inspector / technician a year? What kind of training assistance for initial verification would be the most helpful to your staff?

#### **Western Weights and Measures Association Responses:**

**W1** – We rely on NIST training modules. It takes from four to five years to run through all of the training modules for our staff. We spend from 35 to 40 hours of training per module. Placing training modules on CDROM or the Internet would facilitate individualized training.

**W2** – We also rely on NIST training modules. We train service agencies on state requirements. NTEP training would be helpful.

**W3** – We hold an annual training session with two neighboring states. We're using NIST's train the trainer program and devote two weeks per year to training. One week is devoted to a single module. We train service agencies on placed-in-service reports and every two years cover the changes in Handbook 44. We would like to have an updated list of Certificates of Conformance and a search engine on the web page to make it easier to find devices by model number.

**W4** – No training is conducted by us for service technicians. County staff are continually trained by five statewide specialists. We're currently working on a 14-module training program for release next year. It will be available on our web site.

**W5** – We would also like a search engine for locating NTEP CCs.

**W6** – We use the existing collection of training modules for our training. We don't do too much outside training but we do use the train the trainer program. We don't use anything specific for initial verification training.

**W7** – Training takes place once per year. We try and coordinate our training with adjacent states. We don't train service technicians. We would like to have a searchable CD for NTEP CCs. Our inspectors have laptops and can connect to the NCWM website.

**W8** – We have used Tom Stabler's training courses, NIST training modules and on the job training with peer training. Our training is continuous and on-going. We would like to see more formal training take place in the western region of the country.

#### **Central Weights and Measures Association Responses:**

**C1**– For new employees, we have a length intensive program in place. Two to three 32-hour training sessions take place each year for existing personnel. We test service personnel before a license is issued but don't regularly perform training. We depend on the service agencies to train their own personnel.

## State Directors' Breakfast Questions and Responses Regarding NTEP Issues

### QUESTION FOUR - 2002 ... continued

**C2** – We maintain on-going classroom and field training for inspectors. We are just now beginning classroom training for service personnel. We require that properly completed placed in service reports be submitted and conduct training on how to perform this function.

**C3** – We have three training sessions each year for our inspectors. We use placed in service reports and currently are working on new legislation to further refine and define the process.

**C4** – Our state uses a mentoring program for new inspectors which uses a small group for training purposes. We hold formal training sessions by device type. We use inspection reports on new devices and also try to do voluntary training of registered service personnel at least once a year.

**C5** – Our state holds three training sessions each year for our inspectors. Currently there are no special forms for new devices (we use WimWam software). We are planning on using the CWMA exam for service personnel. We hold H44 training for service personnel each year and have a 50% pass rate. Other training modules are presented as needed.

**C6** – We conduct a three to four week orientation session for all new inspectors and hold 3 sessions each year. We have no formal training of service technicians.

**C7** – We use a worksheet for new installations. It is used by both service technicians and field inspectors. Inspectors are required to have eighteen hours of training each year. Service technicians are required to have at least one day of training every two years. We employ a full-time trainer who handles training for both inspectors and service personnel.

**Northeast Weights and Measures Association  
Responses:**

**No Record**

**Southern Weights and Measures Association  
Responses:**

**No Record**