Responses to the 2008 W&M Directors Questions
(Non-Attributable Version)

Question 1: **NIST Handbook 44 was first published in 1949; however, only 39 States adopt the handbook on an annual basis. The other states are a year or more behind in the adoption process. State to state will vary in how HB 44 is interpreted; in some cases it is different from county to county and inspector to inspector within the same state. How can the SMA help promote the uniform enforcement of the most recent edition of HB 44?**

CENTRAL WEIGHTS AND MEASURES ASSOCIATION (CWMA)

Yearly adoption of Handbook 44 with state conducted training for inspectors.

No automatic adoption process but currently working from the 2007 edition. We have several state requirements that contradict or go beyond Handbook 44 specifications.

Bi-annual adoption process with 2007 edition as the latest. Focus on training including yearly training of industry personnel.

Adoption is for a specific edition (year). Adoption is done every five years with the 2005 edition being the most recent adoption and 2010 being the next adoption year. This process (adoption by rule) provides flexibility for implementation of new specifications by a variance process. Training is important and the SMA could assist by identifying changes that we feel are more important than others from a specification point of view. In addition, we are seeing a decrease in the basic knowledge of device users and technicians. It would be beneficial to have a basic knowledge learning process.

Adopts Handbook 44 on an annual basis. Training as well as clearly defined specifications are key to a successful program.

Adoption is by reference and currently includes the 2003 edition of Handbook 44, however; the department does inspect devices to the specifications in the most current edition. Training is key to a successful weights and measures program.

Adopts Handbook 44 on an annual basis. The adoption process is not automatic. We have a state required training program and also county training programs.

Our ability to adopt the most recent version of HB 44 is limited. Currently, the appropriate codified law has to be modified by the Legislature to allow the adoption of specific standards as of a given date. For example, the statute may be modified to state: "...specifications and tolerances shall be in conformity with the code of specifications, tolerances, and regulations for commercial weighing and measuring devices issued and recommended by the National Institute of Standards and Technology of the United States Department of Commerce and in effect on January 1, 2008." Assuming that is accomplished, Administrative Rules can then be drafted specifically adopting the 2008 version of HB 44.   I am informed that this would have to occur annually and that there is no way to adopt the most current version otherwise. I hope to pursue this more fully to determine whether there is a way to more expeditiously adopt the latest version.

Adoption is for a specific edition (year). Adoption is on a bi-annual basis with the 2006 edition being the most recent adoption. A large focus is placed on inspector and service personnel training with the most recent specifications being included in the training material.

NORTHEASTERN WEIGHTS AND MEASURES ASSOCIATION (NEWMA)

Automatically adopts the most current HB 44 by reference with an addition that prohibits ATC. W&M program is a state wide program with the exception of 5-6 city jurisdictions.

Automatically adopts the most current HB 44 by reference. NTEP has greatly help with the uniformity of enforcing requirements. Improvements can be made to a national training program.

Automatically adopts the most current HB 44 by reference.

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Adopts HB 44 by citation. The state must go through rulemaking procedures in order to adopt HB 44. This procedure normally takes 4-6 months. In order to promote uniformity among the state and to avoid conflicts with new requirements, tolerance, tests notes, etc., the statewide training is provided to inform officials of change that were adopted during the rulemaking process and changes adopted by the NCWM.

Our State adopts the current edition of the handbook on a standing basis, for state inspectors, as well as county sealers. One of our supervisors made the comment that perhaps reprinting the handbook in a less technical and confusing version would perhaps allow better and consistent interpretation and uniform enforcement.

SOUTHERN WEIGHTS AND MEASURES ASSOCIATION (SWMA)

In many states, weights and measures is a political issue. SMA could lobby commissioners and members of the state legislature for more support for the programs. Our law adopts the most recent edition of Handbook 44.

Training is very important. Handbook 44 and Publication 130 interpretation and guidelines is helpful but updating Publication 130 and adding it to the handbook would be very beneficial. Handbook 44 is written such that different interpretations are possible. Publication 14 is handy but is too expensive.

Our state adopts H44 annually. We use it as a guideline.

We adopt the current edition of Handbook 44.

Perhaps a good starting point would be to obtain a general consensus (via email) from the appropriate states on relative issues and use the most prominent interpretations as the guidelines.

Our state adopts the latest version of Handbook 44. Additional training would be helpful.

We adopt the latest version of Handbook 44 annually.

We automatically adopt Handbook 44 each year. We don't check with other states unless we have a problem. We hope that if we are out of step on items it will be brought to our attention.

The latest version of Handbook 44 is automatically adopted each year. If our state has a problem with non-uniformity, someone needs to tell us.

We adopt the current version of Handbook 44.

We adopt the current version of Handbook 44.

WESTERN WEIGHTS AND MEASURES ASSOCIATION (WWMA)

NTEP technical requirements should be separated into a field inspection manual. We need an easier-to-understand field guide for inspectors.

A company can explain any perceived inconsistency to any individual jurisdiction and ask for a review. If the problem affects multiple companies the discussion should go to the state director and possibly to NCWM if there seems to be unresolved differences. The SMA can encourage federal and state law makers to adequately fund their respective weights and measures programs. This way each jurisdiction can focus on their primary mission of the uniform enforcement of Handbook 44.

Our state adopts H44 annually. I think someone would have to lobby each state's legislature, to get those states that adopt a particular year to automatically adopt the current edition. Some states will never allow automatic adoption of Handbook 44.

We adopt a specific edition of the handbook and could be from two to three years behind the current edition.

In our state we are not allowed to automatically adopt publications of the latest edition. We have to adopt publications by a specific edition or year of release. As a more current version becomes available, we have to go through a rule making process to adopt that version. This gives industry representatives an opportunity to a public hearing and a chance to speak out if the newer version has changes that may be of concern to them. Consequently, we are usually a year behind in the version of Handbooks 44 and 130 that we adopt. It would be much simpler for us to be able to reference through rule the adoption of the "most current version" but this is not the way our legislature or industry wants it.

We adopt Handbook 44 annually by rule. The question should apply to service companies as well as state inspectors.

Our state is unique in that there are 58 counties that have their own jurisdictions. We meet four times a year to discuss issues. There are some differences from county to county. SMA could come to one or more of these meetings to offer and conduct training in interpretation of requirements.

Question 2: How is the tare for a thin sheet of wax paper weighing 0.002 lb handled on a legal for trade price computing scale of 30 x 0.01 lb capacity? Are your inspector's trained to check proper tare application for scales used in direct sale to a customer? If you require that tare be rounded upward (to 0.01 lb), would your inspector's detect a situation where a wax paper weighing 0.002 lb. were rounded down to zero tare?

CENTRAL WEIGHTS AND MEASURES ASSOCIATION (CWMA)

We do not require tare if the weight value is less than ½ of the scale division.

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We do not require rounding up if the tare weight value is less than ½ a scale division. We consider tare to be an important part of a transaction but feel that there are larger tare issues that need to be addressed such as the proper tare weight value as part of a PLU (Price Look Up).

We are a Net Weight state but are flexible if the tare weight value is less than ½ a scale division.

This issue is addressed in two ways. The first is to determine suitability of the device for the application. Second, a test is performed to determine the average weight of ten samples of the paper, if the average weight value is less than ½ of the scale division no tare is required. If the average weight value is equal to or greater than ½ of a scale division, tare is required and it will be rounded up.

We do not see this type of problem. We permit Net or Gross sales of products and our inspectors are trained to look for this situation and on how it should be handled.

The majority of our state inspectors are not adequately trained to check proper tare application. While they routinely test scales used in direct sales for accuracy, we address pre-packaged commodity weights on a complaint basis only. These complaints have been few and far between; therefore, it is a procedure that few of our Inspectors have had to utilize.

We consider rounding of both the paper and the commodity. If the tare weight value is less than ½ a scale division we do not require rounding up but we do encourage stores to do so.

NORTHEASTERN WEIGHTS AND MEASURES ASSOCIATION (NEWMA)

Requires that the tare rounds up to 1 d.

Requires that tare must round to the nearest scale division.

Requires that the tare rounds up to 1 d or obtain a suitable scale with a smaller value of d (i.e. 0.002 lb).

Requires that tare must round to the nearest scale division.

Requires that tare must round to the nearest scale division.

We recommend that in cases where the scale does not have an auto-zero capability, in the case of such minor tare product weight, they go to the minimal division for tare (in this case, we would recommend .01). However, it is difficult to enforce such activity, without direct sale accounting for the weights. Our inspectors are trained to check proper tare application for scales used in direct sales to customers when investigating consumer complaints, however conducting such on routine inspections is a test of the operator rather than the device in most cases. In pre-package situation, the tares are uniformly applied without any variation.

SOUTHERN WEIGHTS AND MEASURES ASSOCIATION (SWMA)

It is not a problem for us. We would round down to zero in this case.

We feel that this is probably not that critical. We would check to see what the zone of uncertainty is on this scale.

The tare would probably not be recognized.

We wouldn't worry about it. Let it round to zero.

In this scenario, we would use no tare since the device is incapable of indicating 0.002 lb. Yes, our inspectors are trained and do check tare weights in direct sales. We do not incorporate rounding.

The scale may not be appropriate for this application. The zero tracking may take care of it. It also depends on the procedure the operator uses and whether the paper is added at the same time as the commodity or before.

Probably alright as it is.

We would require that the tare be taken.

No tare would be taken in this instance.

We would deal with it on a complaint basis and the procedure used for the weighing operation.

It would be alright. The weight of the paper would not be registered because the weight difference is too small.

WESTERN WEIGHTS AND MEASURES ASSOCIATION (WWMA)

We would normally rely on the scale's auto zero function to handle this. Generally, we leave it up to the retailer if they want to round up to one scale division for programmed tare. We use undercover buys to ensure compliance and that proper procedures are followed.

Field inspectors are trained to check for proper tare applications; we have an EPO that specifically addresses tares and tare programs for direct sale applications.
  The proper use and function of a scale is very important. A 30 X 0.01 lb scale with automatic zero tracking (AZT) will zero off a weight of 0.002 lb so an inspector would not see a weight value displayed. We do not require a tare of 0.002 lb to be rounded up; however we require correct net weight when the product is sold across the scale.
  We make test purchases to determine if correct tare procedures are being followed. If the AZT is not functioning we would expect the operator to press the tare button with the wax paper on the scale platter. In our experience, most issues result from lack of clear training instructions to employees.

We would ask that the tare be rounded up to a full division. Our inspectors are trained but I doubt that all scales are checked for proper tare operation. Yes to the last question.

We wouldn't worry about this. Our inspectors are trained in the proper procedures and would take any appropriate action.

We have a very limited packaging program due to lack of funding. The program consists of one inspector dedicating one week a month to package inspections. Inspections are dedicated to in bound packed meats and deli items and some packer items that are weighed and labeled in the store. We would require that items packed in the store to reflect a correct net weight. It that tare value was less than the minimum scale division and the scale rounded down, we would require they take the minimum scale division.

We would require that the scale round up in this situation. We conduct in-store testing by doing test purchases.

Question 3: Suppose company 1 has a weighing or measuring system and next to it is a computer with a self written software program that manages transactions using data from that device. For each transaction the operator of company 1 hand enters the device readings into the computer system. Company 2 across the street also has a very similar system, computer, and self-written software program, but his system and computer are connected by a communications cable so that data is automatically transferred to the computer.

• Does your state now require the software program at company 1 or company 2 have an NTEP certificate? Please explain your states justification for the decision for each company.
• If your answer is not the same for both companies, how do you explain that to the company that has to have a certificate?
• What is the extent of your state's jurisdiction over the transactions processed by the computer system at both companies?
• Do you include examination of the computer system at both companies in initial or subsequent verifications of the device?

CENTRAL WEIGHTS AND MEASURES ASSOCIATION (CWMA)

If the weight information is entered by hand no NTEP Certificate is required. If the weight information is transferred electronically the PC software does require an NTEP Certificate.

We do not require an NTEP Certificate for the software in either example.

While we have not done a lot in this area, it is our feeling that if there is an electronic connection between devices there should be an NTEP Certificate.

We inspect the printed receipt; if the information on the receipt is correct the software operating on the PC is not considered.

If the weight information is entered by hand no NTEP Certificate is required. If the weight information is transferred electronically the PC software does require an NTEP Certificate.

Our requirement is based on the first indication of the Net weight value. If the PC software is used to determine the Net weight value, it would be required to have an NTEP Certificate if the weight value was electronically transferred from the scale indicator or entered by hand.

If the weight information is entered by hand no NTEP Certificate is required as this is viewed the same as a hand written ticket. If the weight information is transferred electronically the PC software does require an NTEP Certificate. (The determination is based on the "first final" being the scale indicator or the PC display.)

The situation as described for Company 2 has been seen in our state, and Inspectors do check for NTEP certificates for the software although we probably don't have adequate training in this area. I think it is fair to say that checking software systems for NTEP certificates is not uniformly carried out. Hand entry of readings would be a red-flag that would seem to provide an avenue for the perpetration of fraud. If such a system does facilitate fraud, we would either require an NTEP certificate (in either case) or require other procedures to ensure that the possibilities of fraud are minimized.

Our requirement is based on first indication of the "first final" weight value. The device used to provide this "first final" indication must have an NTEP Certificate. Additional devices 'down steam' displaying the same information are not required to have an NTEP Certificate.

NORTHEASTERN WEIGHTS AND MEASURES ASSOCIATION (NEWMA)

Requires an NTEP CC only on weighing and measuring devices and does not require it on auxiliary equipment that uses the gross weight value and determines net (and total price).

This state has concerns anytime weights are manually entered to print a ticket on auxiliary equipment that is not connected to the weighing device.

We do not require an NTEP Certificate for the software in either example.

This state does not enforce NTEP requirements on software.

This state does not enforce NTEP or state approval requirements on software. The state enforces certification/approval requirements up to the first indication of a measured quantity (e.g., NTEP requirements are enforced up to a gross weight only indicator.) However, weights and measures regulation covers the determination of net determined either by hand or an auxiliary device whether or not is it interfaced with the weighing/indicating device.

Requires an NTEP CC only on weighing and measuring devices and does not require it on auxiliary equipment that uses the gross weight value and determines net (and total price).

SOUTHERN WEIGHTS AND MEASURES ASSOCIATION (SWMA)

We have issues with the evaluation of software. How do you enforce it? We wouldn't look at the software.

We would not require a NTEP CC on either version. We would check the computer to make certain that it complies and that it receives the correct data.

No, we would not require a certificate for anything other than the scale with either of thee applications. No certificate is required. Our jurisdiction is primarily with the weight transaction and only to the extent of verifying the weight indication in the computer system.

No NTEP CC would be required for Company 1, however, Company 2 would be required to have an NTEP CC.

No NTEP CC would be required for either company, except for the scale.

We don't look at software unless there is a problem or complaint.

We will not look at the software.

We don't look at software.

WESTERN WEIGHTS AND MEASURES ASSOCIATION (WWMA)

This is a challenge to NTEP. Handwritten tickets are legal in our state. We can only witness one operation and cannot verify every combination of key sequences. Our DOT has specific instructions in lieu of NTEP approval.

Our law includes interconnected equipment in the Definition of weighing or measuring devices. Simply put, when connected, any feature of the entire system that has a legal requirement must be in compliance with that requirement, including a certificate of conformance for metrological components such as display and recorded quantities and price extensions. (Manufacturer)
  POS systems that are not integrated in some manner and require an operator to manually enter information still must not result in short measure sales or incorrect price determinations under our state law. (User)
  For Company "2", the answer is Yes. Our State Code and HB44 G-A.1 considers such devices as commercial because they affect the overall accuracy of the transaction. i.e.
G-A.1.1.....
> (b) *To any accessory attached to or used in connection with a commercial weighing or measuring device when such accessory is so designed that its operation affects the accuracy of the device.*

Therefore the computer and its operating software will be treated as a commercial device. Our Code also gives us the authority to require type certification.

  Company 1's computer and software is not interfaced to the type certified system (weighing or measuring device) and the accuracy of the transaction can only be verified by the type certified weighing or measuring device. The use of computer / software integrity is in the users' hands.

  Type certification of Company 2's system ensures that the computer / software accurately reflects what the weighing or measuring device has displayed or calculated. We provide copies of our laws and regulations to the affected parties.

  For Company 1: Although there is no requirement for approval of software, state law forbids overcharges and short measure sales under any circumstance. Legal action may be taken if it can be shown the system / operator is using it to defraud customers.

  For Company 2: The system is inspected annually by local inspectors to ensure compliance with weights and measures regulations.

Examination of the computer system takes place only when part of the weighing or measuring system. i.e. When the computer system is integrated with the weighing or measuring system. In spite of that, field staff are strongly encouraged to check all aspects of a system that may affect the accuracy of each transaction where certified devices are employed.

No, generally we feel the scale indicator is the primary indicator and it is verified. The computer is checked to see if there is agreement with the primary indicator. We do verify the net and price calculations on both the hand entered and auto entered transactions.
  One of the primary goals is to make sure the transaction is accurate which is covered under state law.
  We examine the computer system both in the initial and subsequent visits to the site.

The procedure employed by Company 1 is acceptable in our state. We look at the difference between the primary indication and any recorded representations and base our acceptance on that conformance.

We have very limited knowledge on software. We rely on the CC of a device to tell us if the software is required to have NTEP and, if so, then we try to verify that the version being used is the version approved in the CC.
We do not include the computer systems or software in our normal examinations. NTEP has only conducted very limited evaluations on software for many years. We are fully aware that software and computer systems can have a metrological effect on the transaction. However, we do hot have the training or expertise to evaluate a business's computer system or software. We are hopeful that the current software working group will come up with some good guidelines as to what needs verified in the field and also training to assist us in including this in our inspections. If from this workgroup, NIST were able to put together an EPO and provide training to jurisdictions, we would be the first to sign up.

Company 1 is alright if the weight value is recorded correctly. For company 2, we would check that the weight indication is the same as the recorded value.