



State Directors' Breakfast Questions and Responses Regarding NTEP Issues 2003

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, 2001, and 2002 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 2003.

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

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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.

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2003 STATE DIRECTORS' BREAKFAST NTEP QUESTIONS

QUESTION ONE: Does your jurisdiction routinely report NTEP problems found during initial field verification of devices and, if so, in what form is this report made? Page 1

QUESTION TWO: The use of 'active' junction boxes is becoming more common for larger capacity scales. A typical installation may have this 'active' junction box installed in the scale pit or under an access cover. Does this type of junction box cause any additional concerns over the more common 'inactive' type? Page 4

QUESTION THREE: Given that Handbook 44 specifies that given classes of scales are suitable for typical applications, (UR.1 and Table 7a) and that scales not suitable for general use must be marked (Table 6.3a, note 13). Should we expect NTEP to make decisions about the suitability of most scale designs for use in specific applications? Page 7

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State Directors' Breakfast Questions and Responses Regarding NTEP Issues

QUESTION ONE - 2003:

Does your jurisdiction routinely report NTEP problems found during initial field verification of devices and, if so, in what form is this report made?

Western Weights and Measures Association Responses:

W1 - No. Normally we contact the manufacturer or the evaluating lab if a problem is found.

W2 - No. Most of the problems we find are installation related so we work with the device installer.

W3 - No. However, county inspectors notify us of differences between newly installed devices and the Certificate of Conformance. If the differences are significant, then we pass the information on to the manufacturer and the NTEP Director. Admittedly, this does not happen often and, in almost all cases, we resolve the differences with the manufacturer.

W4 - No, we don't. If we discover a problem, we work with the device manufacturer to resolve it.

W5 - Yes. We require a placed in service report which is verified by the inspector. We advise NTEP of discrepancies we find either via phone or email. We have found some problems that led to amendments to the Certificate of Conformance.

W6 - No. We have found that most problems are related to the installation.

W7 - Yes. If the problem is related to the installation, we contact the service company. If it is something other than installation-related, we contact the device manufacturer. We communicate

with NTEP on a regular basis.

Do you contact the evaluating lab or the NTEP Director?

W5 - It depends. Many times we go to the evaluating labs for clarification but we direct other concerns to the NTEP Director.

Central Weights and Measures Association Responses:

C1 - Depending on the nature of the problem C1 would inform NTEP. Problems where the instrument does not conform to the information on the Certificate of Conformance are reported, however, most initial verification problems are setup and configuration in nature. Being an NTEP lab, C1 also responds to field issues brought to their attention. Most reports are verbal.

C2 - Yes we do report problems found during initial verification. We work with other states and NTEP labs to resolve the problem. Reports are verbal only.

C3 - We only perform initial verification of vehicle scale, and when a problem is found we generally work with local installer or manufacturer to resolve.

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QUESTION ONE - 2003 ... continued

C4 - Report of initial verification problems is verbal. We work with the manufacturer to resolve the problem but will involve NTEP if necessary.

C5 - When a problem is found we contact and work with the manufacturer. We will contact NTEP if we suspect a problem with the information on the certificate.

C6 - We feel most problem found during initial verification are setup and configuration problems - not performance related. Will work with NTEP if needed and information is in verbal form. (Looking forward to new Registered Service Program for more information.)

C7 - No real problems are found in livestock scales because the small number of manufacturers. If a problem is found we generally work with the local state for resolution.

C8 - Report of initial verification problems are verbal at this time. We will work with local installer or the manufacturer to resolve the problem but will involve NTEP if necessary.

Southern Weights and Measures Association Responses:

S1 – We have no formal procedure for reporting this type of problem. We usually call the device manufacturer and / or NTEP.

S2 – Our reporting procedure is informal and we normally make a verbal report, first to NTEP then to the evaluating lab and device manufacturer.

S3 – We have just begun our association with NTEP and have no history to report. Reports would be verbal.

S4 – We have no formal procedure that we follow in reporting problems to NTEP. The first step is to call the lab that evaluated the device. We sometimes include NIST depending on the nature of the problem.

S5 – We have no formal reporting procedure. We have found that most problems are the result of an improper installation and deal with these by contacting the responsible dealer.

S6 – Yes. Reports are made informally to NTEP or to the evaluating lab. Normally, we do not have many problems of this type.

S7 – Yes. If we find a problem, we report it. The report is informal and usually made by telephone. Sometimes we call the evaluating lab depending on the problem found.

S8 – We haven't adopted NTEP yet so we don't look at the NTEP Certificate of Conformance.

S9 – We call the evaluating laboratory if we have a question about the device. If there is a problem, we speak with NIST. The reporting process is seldom in written form unless there is a real difference in the device. Usually the problem is a result of an improper installation and not of a production meets type nature.

S10 – The report is typically made in verbal form between the manufacturer and us if it is a minor problem. If the problem is considered major, NTEP is called.

State Directors' Breakfast Questions and Responses Regarding NTEP Issues

QUESTION ONE - 2003 ... continued

Northeast Weights and Measures Association Responses:

N1 - Local jurisdictions are encouraged to obtain copies of CC's before performing verification testing. Local inspectors will contact the state officials or the N1 NTEP lab to help answer questions. If a problem is found, NTEP is informed by verbal communications. If a scale is condemned, the manufacturer is contacted directly.

N2 - Currently no direct contact with NTEP. However, recent experiences have shown the possible need for NTEP contact and additional training. Seems to be seeing an increase in suitability issues.

N3 - State and local inspectors work closely with NTEP lab personnel who works directly with NTEP as needed. All communications are verbal. Most common problem is associated with product markings.

N4 - State and local inspectors contact supervisors with questions and concerns. Verbal review of CC's is performed. No direct contact with NTEP.

QUESTION TWO - 2003

The use of 'active' junction boxes is becoming more common for larger capacity scales. A typical installation may have this 'active' junction box installed in the scale pit or under an access cover. Does this type of junction box cause any additional concerns over the more common 'inactive' type?

**Western Weights and Measures Association
Responses:**

W1 - No, we have no additional concerns over an active junction box. We look at the weighing system as a whole and require that it meets the appropriate tolerance.

W2 - If we know that it is an active junction box, we would require that it be sealed but, because we have a confined space policy, we are often unable to check the type of junction box used.

W3 - No. However, we do test "active" junction boxes* and still require identification be easily accessible.

* Publication 14 excerpt (Digital electronic scales checklist)

H. NTEP Testing of Junction Boxes

There will be cases for scales equipped with a junction box when it is appropriate to test the junction box in the environmental chamber with a scale. The NTEP laboratories will make this assessment on a case-by-case basis based on a review of the device capabilities with the manufacturer. The junction boxes can generally be categorized into categories of "passive" and "active".

An "active" box means that the device has amplifiers, adjustable components such as

adjustable load cell summing cards or a significant component such as an A/D converter. A "passive" box is one which may have temperature-sensitive resistors, but not significant components warranting separate evaluation. It is expected that manufacturers choose resistors appropriate for their applications. If the box is classified as "active" then it would be tested and designated as either an indicator or a weighing element rather than as a separate component. The resulting CC would also be for either an indicator or a weighing element; not for a separate junction box.

W4 - No, but we do have concerns over the environmental sealing of the junction box.

W5 - Yes, if the Certificate of Conformance lists that the junction box is to be sealed, we are concerned about the confined space and environmental issues or checking it.

W6 - No, we have no additional concerns as long as the performance of the total device is maintained and is within the appropriate tolerances.

W7 - No, we are primarily looking at the performance of the total system. If we're already aware of the junction boxes, we will make certain that they are sealed. Adjustments to these boxes are normally beyond the field inspector's ability.

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QUESTION TWO - 2003 ... continued

W8 - Yes, we are concerned that the junction boxes are sealed. Because of temperature extremes, scales are typically calibrated twice a year. We feel it important to check at temperature extremes and have found some devices to be noncompliant.

Central Weights and Measures Association Responses:

C1 - We do not feel junctions boxes should be evaluated separately. Junction boxes should be sealed.

C2 - Active junction could be of a concern, at minimum, active or 'smart junction boxes should be sealed.

C3 - This is not a concern and really no way to check if installed in pit because of confined space requirements.

C4 - When thinking of T.N.8. requirements, we feel smart junction boxes could be and issue of concern. We feel all junction boxes should be sealed and could see a need to have all junction boxes installed in an accessible location: not in the pit.

C5 - Concerned if the junction box was assigned an NTEP certificate. We would need to check for proper markings and this could be a problem if installed in the pit.

C6 - We share the concerns regarding the confined space requirement and feel that if the junction box contains any component that is used for performance adjustments, the box must be sealed.

C7 - All junction boxes must be sealed.

C8 If it were identified that a smart junction box was installed we would be concerned and would require a certificate. If junction box were located in the pit we would not find it, as we are not permitted to go into pits because of confined space requirements.

Southern Weights and Measures Association Responses:

S1 - We're not familiar with the active junction box technology.

S2 - We've had no problems reported from the field in regard to active junction boxes.

S3 - We have not experienced any problems with this type of junction box.

S4 - We require that the active junction box have its own NTEP Certificate of Conformance. If the junction box is located in the scale pit, we do not inspect it because of confined space safety restrictions. We've had no field problems reported with active junction boxes.

S5 - We've not had any problems with the active junction boxes.

S6 - We are concerned about access to the box and its proper sealing against moisture. Our inspectors do not go into the pit because of confined space issues.

S7 - The location of the junction box can be a problem. We do not go into the scale pit because of safety issues but are concerned about the effects of moisture on the junction box.

S8 - We do not go into the scale pit to inspect junction boxes. We haven't received any feedback regarding this type of junction box.

State Directors' Breakfast Questions and Responses Regarding NTEP Issues

QUESTION TWO - 2003 ... continued

S9 – We're not aware of any problems.

S10 – We're not aware of any problems with these junction boxes. We do have questions about which box is the active junction box and which are splice boxes.

Northeast Weights and Measures Association Responses:

N1 - Yes, it does give us some concern. We feel that 'active' or 'smart' junction boxes should be tested and sealed. All junction boxes should be sealed.

N2 - We do look for installed junction boxes and require them to be sealed. We would rely on the NTEP position in regards to requiring separate testing.

N3 - We are concerned and have been reviewing this issue over the past few years. We believe that all junction boxes should be tested and sealed.

N4 - Junction boxes should be sealed. We should discuss the need for evaluation and testing with NTEP.

QUESTION THREE - 2003

Given that Handbook 44 specifies that given classes of scales are suitable for typical applications, (UR.1 and Table 7a) and that scales not suitable for general use must be marked (Table 6.3a, note 13). Should we expect NTEP to make decisions about the suitability of most scale designs for use in specific applications?

Western Weights and Measures Association Responses:

W1 - No, suitability is not an NTEP function.

W2 - The manufacturer will tell NTEP, in a broad sense, how the scale is to be used. It is not an NTEP issue.

W3 - For the most part, individual counties determine suitability. Sometimes they seek advice from us.

W4 - This is not an NTEP issue.

W5 - This is not an NTEP responsibility as long as the use of the device does not require any further evaluation. i.e. weight classifier If the manufacturer has built the device for a particular purpose, they will ask that the use be listed on the NTEP Certificate of Conformance. If used for other than the listed applications, it will be necessary for the field inspector and/or the jurisdiction to review the suitability.

W6 - No, the suitability of the device for the application is up to the jurisdiction in which it is installed. The manufacturer determines the type of use as listed on the NTEP Certificate of Conformance so NTEP already has reviewed the general use of the device.

W7 - No, the inspectors and jurisdiction will determine the suitability of the device.

W8 - If there are suitability requirements for the application then NTEP should be involved.

Central Weights and Measures Association Responses:

C1 - Yes, NTEP should perform this function and it does so today. Postal scales and weight classifiers have specific requirements that must be checked during NTEP evaluation. Representatives of C1 Counties agree with the C1 statement.

C2 - Yes, NTEP should perform the function of testing scales for suitability of specific applications.

C3 - NTEP should evaluate to special requirements but the state of field should have the final say.

C4 - Agreed with Wisconsin and is concerned with the term 'General Purpose Application'. This causes suitability issues that are difficult to address and correct. Manufacturers determine application the scale is designed for we feel this should be listed on the Certificate of Conformance. We feel that there is a need for tests specific to the application.

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QUESTION THREE - 2003 ... continued

C5 - Manufacturer determines application and this should be listed on the Certificate of Conformance. The field should determine suitability.

C6 - NTEP should test to specific application but state has the determination of suitability.

C7 - There should be different tests for different applications.

C8 - No, NTEP should not be responsible for suitability. States should make this determination.

Southern Weights and Measures Association Responses:

S1 – We do not feel that suitability is an NTEP issue.

S2 – We feel this is an enforcement matter and depend on our field inspector for a judgment on suitability.

S3 – We feel that the field inspector is the party most capable of determining a suitability matter. It should not be an NTEP issue.

S4 – There is enough guidance in Handbook 44. The device manufacturer's input as listed on the NTEP CC is also required but suitability is not an NTEP issue.

S5 – Suitability is an enforcement issue and not an NTEP issue.

S6 – We use the NTEP CC for initial inspection but depend on the field inspector for the final decision regarding suitability. The NTEP Certificate of Conformance cannot list every application but serves as a general guideline for the appropriate application.

S7 – We also use the NTEP CC as a tool in determining the suitability of a device for a specific application but the field inspector is the final authority. Suitability is not an NTEP issue.

S8 – We don't think NTEP should make a suitability decision.

S9 – No. Labs should not make this type of decision.

S10 – NTEP should not get into suitability matters. The manufacturer should list the general applications suitable for the use of the device and this information should serve as the guideline for determining suitability.

Northeast Weights and Measures Association Responses:

N1 - NTEP does not know where this scale is going to be used unless the manufacturer declares a special application. Suitability is a field enforcement issue, and should be dealt with at the field level. If the manufacturer declares that the scale is suitable for the application and the inspector should confirm this.

N2 - Suitability is a very subjective item. This should be a field decision, as NTEP cannot solve all problems.

N3 - Suitability is determined at the field level. CC can identify applications but this is not the final say. NTEP should not identify applications unless it is a specific and limited application stated by the manufacturer.

N4 - Suitability is a field issue.

State Directors' Breakfast Questions and Responses Regarding NTEP Issues

QUESTION FOUR - 2003

State's willingness and ability to participate in the NCWM's proposed conformity assessment program

Southern Weights and Measures Association Responses:

- S1** – We're not certain at what level we can participate. At the present, we are busily trying to get data into our own database.
- S2** – We will try to cooperate in any way we can.
- S3** – We will try to support NTEP in this endeavor but our degree of support depends largely on our available resources.
- S4** – We would like to participate but NTEP needs to provide training and you need people in order to do the job. We must have active participants to make this work. It is a long-term commitment.
- S5** – We don't have the resources to participate but we do a more thorough review on new installations in order to identify this type of problem.
- S6** – We place a lot of confidence in the NTEP Certificate of Conformance and do a thorough examination on initial verification. We are pretty well covered particularly on the liquid side.
- S7** – We are trying to do more with less and would try to participate as fully as is possible.
- S8** – We are not planning on taking on any new responsibilities as a result of recent reductions in force. No, not for now.
- S9** – The key to this is the NTEP Certificate of Conformance. We need the NTEP CC for the first initial field evaluation. We may require a NTEP CC accompany placed in service reports. As an alternative, NTEP should send the CC to the state and ask for specific device evaluations.
- S10** – We will have to look at our own resources at that time. We must have specific information regarding the evaluation to be conducted.