

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. In 1998 we published the 1997-1998 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 1999.

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 responses are non-attributable to preserve an atmosphere for candid answers.

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.

1999 STATE DIRECTORS' BREAKFAST NTEP QUESTIONS

QUESTION ONE: If an NTEP device is (metrologically) modified, does your jurisdiction require additional testing? Do you require a new Certificate of Conformance?

Page 1

QUESTION TWO: A mechanical lever vehicle scale has been installed pre-NTEP. After your jurisdiction's adoption of NTEP, all levers are removed and replaced with load cells. Do you agree with the Weighing Sector's interpretation that a new device has been created and must have a Certificate of Conformance, or, is the new device grandfathered?

Page 4

QUESTION THREE: What process does your jurisdiction follow for reporting hack to NTEP when a device is found to be inconsistent with the NTEP CC or does not comply with Handbook 44 requirements? How do you (or do you) track device failures for accuracy and/or specification violations in your jurisdiction?

Page 7

QUESTION ONE - 1999: If an NTEP device is (metrologically) modified, does your jurisdiction require additional testing? Do you require a new Certificate of Conformance?

Western Weights and Measures Association Responses:

- W1 Compliance with Handbook 44 is required. We would contact the device manufacturer regarding the modification and, if warranted, perform additional testing. A new Certificate of Conformance would not be required.
- W2 We ask to be notified anytime a significant modification is made to a device. An evaluation would be performed to verify that the device performs correctly but no new certificate would be required.
- W3 The State also asks that they be notified anytime a significant modification is made to a device. If the modification is made by someone other than the original manufacturer of the device, additional testing is required. If the modification affects the performance of the device a new NTEP Certificate of Conformance may be required.
- W4 Notification of significant modifications to a device is required. A new NTEP Certificate of Conformance is not required but additional testing is required to verify device compliance.
- W5 It must be determined whether the modified device exceeds the parameters listed on the current Certificate of Conformance. If it does, the party performing the modification would have to prove the device compliant.
- W6 The State follows the model law and if a device were significantly modified, it would not be allowed.
- W7 If the device modifications were minor, field testing would be used to verify compliance. If, however, the modifications were major an engineering analysis would be required to verify structural integrity.

- W8 Testing would have to be performed before the modified device could be used commercially. If the device were electronic, a new NTEP Certificate of Conformance would be required.
- W9 If the modifications fall within the parameters of the device's NTEP Certificate of Conformance, it would be accepted without requiring a new or amended certificate. If the modifications were outside the parameters of the existing NTEP Certificate of Conformance, a new certificate would be required. Additional testing will be performed to verify compliance.
- W10 Notification of device modification is not required but is desired. A new NTEP Certificate of Conformance is not needed as long as the modified device complies with applicable standards. If the modifications create a entirely new device, a new NTEP Certificate of Conformance is required.

Central Weights and Measures Association Responses

- C1 It depends on the modification. If the modification invalidates the Certificate of Conformance, a new NTEP CC would be required.
- C2 Yes, additional testing would be required. The modification would have to be NTEP approved and could require an amended NTEP certificate.
- C3 Yes, additional testing would be required. Yes, a new NTEP CC would also be required.
- C4 No, additional testing will not be required. Whether a new or amended NTEP Certificate is required depends on the direction received from the NTEP lab and / or NIST and upon information received from the device manufacturer.

- C5 Yes, additional testing would be required. Yes, a new NTEP CC would also be required along with any additional applicable testing.
- C6 Yes, additional testing would be required. The device may require a new or amended NTEP CC but it depends on whether the device is granted a one-of-a-kind waiver.
- C7 No additional testing would be required by the state but a new or amended NTEP Certificate of Conformance will be required.
- C8 If the engineering department of the device manufacturer provides a formal statement that the modification is acceptable then the State would test the device up to 90 percent of its capacity. No new NTEP CC would be required.
- C9 If the modification affects the metrological characteristics of the device, a new or amended NTEP Certificate of Conformance will be required. Additional testing may or may not be required depending on the characteristics of the modification.
- C10 No, additional testing will not be required but a new or amended NTEP Certificate of Conformance will be required.

Northeast Weights and Measures Association Responses:

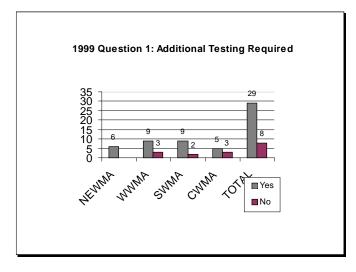
- N1.- These devices are evaluated on a case by case basis. Metrological changes will require additional testing and a new Certificate of Conformance.
- N2 Yes, additional testing would be required. Yes, a new NTEP CC would also be required along with any additional applicable testing.
- N3 State statutes require devices to have sufficient evidence of acceptable performance. If the device has a State Certificate of Conformance and is.metrogically modified, additional testing and a new Certificate of Conformance would be required.

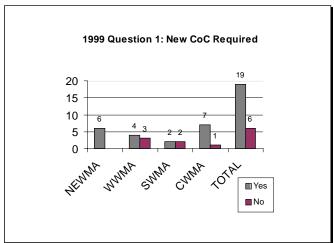
- N4 Yes, additional testing would be required as would a new Certificate of Conformance if the modification is metrologically significant. State scale technicians normally contact the state weights and measures office before making any modification that might be considered of metrological significance.
- N5 Yes, additional testing would be required as would a new Certificate of Conformance but these would be handled on a case by case basis. The modification would have to be significant before a new certificate is required. The state attempts to work closely with industry in these matters.
- N6- Yes, additional testing would be required and so would a new Certificate of Conformance. This is true regardless of whether the device originally had a NTEP Certificate of Conformance or not.

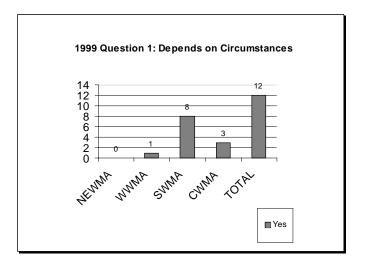
Southern Weights and Measures Association Responses:

- S1 If the modification affects the integrity of the device, it is not allowed unless additional testing takes place. If the modification is minor (small dimensional changes), it is allowed with approval of the device manufacturer and NIST.
- S2 No additional testing is required but State Weights and Measures must be notified of the modification and the device subsequently verified. No new NTEP CC is required.
- S3 We follow NTEP requirements as much as possible.
- S4 The action taken depends on the degree of modification. If the modification is significant enough that it becomes a new device, a new evaluation will be required. A new NTEP CC may not be required but additional testing will be.
- S5 If the modification is significant, a new evaluation including additional testing will be required. We require that a description of the modification be submitted in writing to our office. The modification may or may not require a new NTEP CC.

- S6 The action taken depends on the extent of the modification. We rely on NIST for their opinion. A new NTEP CC would not be required unless required by NIST.
- S7 We look at the modification first before making a decision. If the modification is significant, additional testing and perhaps a new NTEP CC are required.
- S8 We would normally not require a new NTEP CC and would depend on NIST's interpretation of the modification.
- S9 It depends on the nature of the modification. There is no simple answer.
- S10 Regardless of the modification, the scale will be subjected to testing consistent with the type of device.
- S11 The action we take would depend on the modification.
- S12 It depends on the nature of the modification. No new NTEP CC would be required but additional testing will take place.
- S13 The initial installation is the only time the state is notified of a new device. As long as the modification does not invalidate the NTEP CC, no additional testing is required. If the modification does invalidate the NTEP CC, use of the device would not be allowed without a new CC. The state allows only one device under one-of-a-kind.
- S14 At the least, additional testing would be required. This could be a routine verification with up to 25,000 pounds of test weight or could require a larger amount of test weight conducted initially, again within 30 days of initial evaluation and possibly six months later. We would reserve the right to require a new NTEP CC depending on the circumstances.







QUESTION TWO - 1999: A mechanical lever vehicle scale has been installed pre-NTEP. After your jurisdiction's adoption of NTEP, all levers are removed and replaced with load cells. Do you agree with the Weighing Sector's interpretation that a new device has been created and must have a Certificate of Conformance, or, is the new device grandfathered?

Western Weights and Measures Association Responses:

- W1 The vehicle scale would be grandfathered but only load cells and indicators with NTEP Certificates of Conformance would be used in the conversion.
- W2 The vehicle scale would be grandfathered but, if the scale failed to perform correctly when tested, it would have to be replaced with a new scale with a NTEP Certificate of Conformance. State law requires that after failure of the device, it must be "correct" and accurate which means that the old scale cannot be used and must therefore be replaced.
- W3 We agree with the Sector's interpretation however we have state statutes dating back to 1949 which would apply to this situation.
- W4 We would grandfather the scale but the load cells and indicator would have to have NTEP Certificates of Conformance. If the scale failed the test, it would not have to be replaced with a new model like it would in Arizona.
- W5 The scale could be grandfathered but the load cells and indicator would have to have their own NTEP Certificates of Conformance and be properly selected. Note that you could not increase the capacity of the scale when making this change.
- W6 We would consider this a new device and treat it accordingly. Our state discourages this type of activity.
- W7 The scale would be accepted if the load cells and indicator used have NTEP Certificates of Conformance, the original scale capacity is not exceeded and the scale performs acceptably.

- W8 The scale would be grandfathered but the load cells and indicator used must be traceable to NTEP Certificates of Conformance. It would be considered a new device if the capacity is increased from the original value.
- W9 The scale could be grandfathered if it remains in the same location and the owner performed the modification. It could not be modified then resold. We agree with the Sector's interpretation.
- W10 We would require that the scale use load cells and indicator having their own NTEP Certificates of Conformance. If the modified scale has a capacity greater than the original capacity, we would consider it to be a new device and treat it accordingly.

Central Weights and Measures Association Responses

- C1. The State is currently making new rules that would apply to this case. Typically an approval is given to change the location of a scale but, in this case, the scale may or may not be grandfathered but, in either case, would be subjected to additional testing.
- C2 Any device that has been previously approved would be grandfathered. Additional testing of the scale would be required.
- C3 The device would not be grandfathered and would be considered a new device type and would therefore require a new NTEP Certificate of Conformance.
- C4 We would agree with the Sector that this is a new device and would therefore not be grandfathered.
- C5 We also agree with the Sector that this is a new device and would therefore not be grandfathered.

- C6 Instances like these are examined on a case by case basis. Odd sizes are allowed to be manufactured while standard sizes are not since they are available from more than one source.
- C7 We agree with the Sector that this is a new device and would therefore not be grandfathered.
- C8 We too agree that this is a new device and would not allow it to be grandfathered.
- C9 Under existing rules, NTEP certified load cells and weight indicators can be used in situations like this. Proposed rules would not allow this.
- C10 We look at applications like this on a case by case basis. Although we have a liberal one-of-a-kind policy, we discourage this sort of thing.

Northeast Weights and Measures Association Responses:

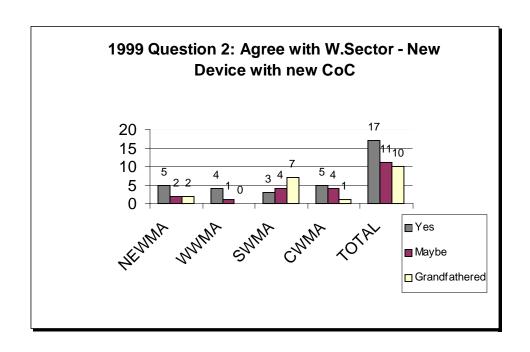
- N1 This would be considered to be a major modification and would therefore not be grandfathered.
- N2 Yes, we would agree that a new device has been created and would, therefore, not allow it to be grandfathered. The load cells must have an NTEP Certificate of Conformance but the scale could be granted a certificate by the jurisdiction after completion of the required testing.
- N3 Yes, we agree with the sector that a new device has been created with this modification. It would not be grandfathered and would be required to have a state certificate of conformance.
- N4 Yes, we also agree with the sector that such a modification would create a new device. It may not be necessary to have a new NTEP Certificate of Conformance since it is possible to accept it as a one-of-a-kind device assuming that the manufacturer confirms that there will be no other devices like it. It may also be possible that this configuration has a state issued certificate of conformace.

- N5 We also agree with the sector that a new device is created with this type of modification and the original NTEP Certificate of Conformance would no longer be applicable. A new NTEP Certificate of Conformance may not be required depending on the circumstances. Our jurisdiction went through something similar a number of years ago when a number of scales were converted to full electronic types.
- V6 In general, we agree with the sector's position that a new device has been created with this modification. We would require the use of load cells with NTEP Certificates of Conformance. The modified device would not be grandfathered.

Southern Weights and Measures Association Responses:

- S1 Anything changes beyond the transverse lever would be considered a new device and would require a new NTEP CC.
- S2 As long as test requirements are met, it would continue to be grandfathered.
- S3 We may not always be informed when a modification of this type takes place but would consider any changes beyond the transverse lever as a new device which would require a new NTEP CC.
- S4 If a retrofit kit with a NTEP CC is used, the change would be acceptable. We agree that any other changes would be considered a new device but administrative procedures allow it to be grandfathered but complete and through testing of the device would take place. NTEP load cells and indicator must be used.
- S5 Load cells and an indicator with NTEP Certificates of Conformance must be used.
- S6 The device would be grandfathered as long as the load cells and indicator used have NTEP Certificates of Conformance.
- S7 The device would be grandfathered as long as the load cells and indicator used have NTEP Certificates of Conformance. A new CC would not be required.

- S8 We would view it as a new device but a new NTEP CC would not be required.
- S9 "We have friends that are device owners. We have friends that are dealers and we have friends that are manufacturers. We stand by our friends."
- S10 We would require that the load cells used have an NTEP Certificate.
- S11 We look at it as an improvement in the installation and would require that the load cells and indicator used have their own NTEP Certificate of Conformance.
- S12 The device would be grandfathered but must use load cells and indicator with NTEP Certificates of Conformance.
- S13 Our NTEP law is also our service technician law. If the device is already within the state, it would be allowed but would have to use load cells and an indicator with NTEP Certificates of Conformance.
- S14 Yes, we would agree. The modifications described would create a new device. This device could not be grandfathered.



QUESTION THREE - 1999: What process does your jurisdiction follow for reporting hack to NTEP when a device is found to be inconsistent with the NTEP CC or does not comply with Handbook 44 requirements? How do you (or do you) track device failures for accuracy and/or specification violations in your jurisdiction?

Western Weights and Measures Association Responses:

- W1 We contacted NIST with regard to a hanging scale with a remote display. The scale had a NTEP Certificate of Conformance but it did not list the remote display. NIST did not contact the manufacturer with regard to the discrepancy. If we find a device that is inconsistent with the CC, we first attempt to contact the evaluating laboratory. We do maintain a limited database of devices and are currently considering updating the database.
- W2 We have no formal reporting procedure. The state does track devices as well as repair personnel in our database.
- W3- The state depends on county field inspectors to identify non-compliant devices. If the device was originally evaluated by the state lab, an investigation would take place to determine if the lab or the manufacturer had made an error. If another lab had performed the evaluation, that lab would be contacted. Although our state does not track devices, many of our counties do.
- W4 We would first condemn the scale than contact NTEP and advise them of the action taken. We seldom have to take this action since the device manufacturer normally takes care of the problem. We maintain a basic database of devices within the state.
- W5 A formal procedure for reporting non-compliant devices has not been established. If a non-compliant device is discovered, we would call NIST. We are currently designing a database to track devices within the state and anticipate having it in operation by the year 2000.
- W6 We advise NIST of any non-compliance observed but do not receive any feedback. The state maintains a database of devices for the last five years.

- W7 This has not been much of a problem in our state. If we discover a significant area of non-compliance in a device, we first contact the device manufacturer. A database of device evaluations has been maintained since the early 1990's and we can look at device history for the last five years.
- W8- Our state has no formal procedure for reporting non-compliant devices to NIST. Should we find a non-compliant device, we communicate our concerns with the device manufacturer or the installing agency. We maintain a database by device location with specific information reported on hard copy and maintained for the state mandated period of time.
- W9 Since our state adopted NTEP, we have developed a new form that keeps an acceptance sticker from being applied to the device until proof of an applicable NTEP Certificate of Conformance is obtained. If a problem with non-compliance is discovered, the device manufacturer or installing agency is contacted.
- W10 We have no formal procedure for reporting non-compliant devices to NIST. When non-compliance is discovered, we contact the installing agency to solve the problem. We track device performance on a pass-fail basis. Software that will maintain a database with greater detail is currently under development.

Central Weights and Measures Association Responses

C1 - When we find a non-compliant device, we contact NIST. Devices that fail an examination due to accuracy or specifications are tracked. We require the device owner to keep records for a minimum of five years. We hold test data in our data base for an unlimited length of time.

- C2 When a non-compliant device is identified, we report it to NIST. The state data base is limited to the last two years of test reports but we are currently revising our data base and this time period will be increased.
- C3 We advise NIST when a non-compliant device is found. Our data base on device examinations is maintained for three years.
- C4 We reject a scale when it is found to be non compliant and leave it up to the scale owner and manufacturer to resolve the issue. We keep records for five years. Most of the non-compliance problems we find are related to load cells. For example, the load cell may have an incorrect minimum verification interval for the application.
- C5 When a non-compliant device is found, we report it to the OWM staff at NIST. Our inspectors know what to look for and keep the last six inspection reports for each device. The hard copies are maintained for a period of seven years. We are able to monitor devices by serial number, manufacturer and scale technician.
- C6 Our inspectors keep track of device characteristics and maintain hard copies of test data for five years and maintain the same records in our data base for an unlimited length of time. We coordinate our efforts in the area of non-compliance with the state lab.
- C7 When we identify a non-compliant device, we notify NIST in writing and, in some instances, distribute the information via the CWMA. We maintain test reports back to 1982. The computer data base dates back to 1992 and can be searched by model number, serial number, device owner and so on.
- C8 We receive a number of calls regarding noncompliant devices since we are often the NTEP lab that conducted the evaluation. Findings of non-compliance are reported to NTEP. We don't do too good of a job tracking devices by model number but do track individual units by location. Normally much of this is handled by local jurisdictions.
- C9 When a non-compliant device is found in the state, NIST is contacted. We have a central data base

and use it to track devices. We currently have six years of data accumulated. Hard copies are maintained for a period of five years. We rely on our field inspectors' judgement.

Northeast Weights and Measures Association Responses:

- N1 Not too certain how these instances are reported. We've had one instance in the last three years and it concerned a vehicle scale. A letter was sent to NTEP regarding the non-compliance. Only test reports for railroad track, vehicle and large capacity tank scales are maintained. A data base to track initial and subsequent verification of all devices is currently being constructed. It is being setup in conjunction with our licensing data base which already exists. Individual inspectors keep their own records at the present time.
- N2 We report instances of non-compliance to NIST/OWM. Our data base tracks some devices (gas pumps, fuel oil and propane delivery trucks) individually. Local jurisdictions all have different tracking methods. Plans call for upgrading the data base.
- N3 There is no formal process in place for reporting non-compliant devices. We are, however, in the process of developing a new data base to track devices.
- N4 -The State NTEP lab is the focal point for many questions of device non-compliance. The lab is informed on a non-compliant device and then may call NIST/OWM and / or other NTEP labs. Normally the questions deal with device features and, in the case of a vehicle scale, platform sizes. We have a large number of local jurisdictions. We get annual reports from these jurisdictions which list compliance rates for various device types. We are currently developing a data base that will be compatible with these local jurisdictions. Within two months, state inspectors will take random samples of inspection reports from local jurisdictions to build a state-wide data base. Future inspection rates will be developed from information contained in this data base.
- N5 State field inspectors report device non-compliance via their lap top computers to their supervisors. The supervisor determines if and when it is necessary to contact NIST/OWM. Field inspectors are empowered to make decisions regarding non-compli-

ance and determining if fraud exists. Such findings are formally reported to NIST/OWM. The current data base is used to track large devices. The state has numerous individual jurisdictions. We are working with these individual jurisdictions to gather compliance information. This information goes into a statewide data base.

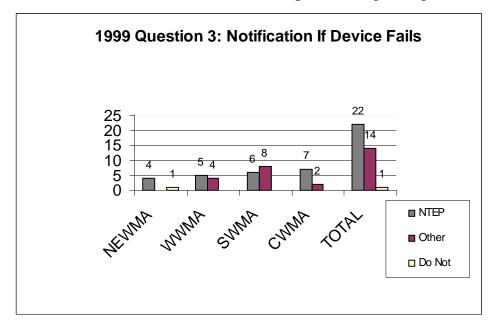
N6 - Currently device tracking is accomplished through annual reports. Field inspectors maintain their own records and provide annual reports to the state. The date base is maintained informally.

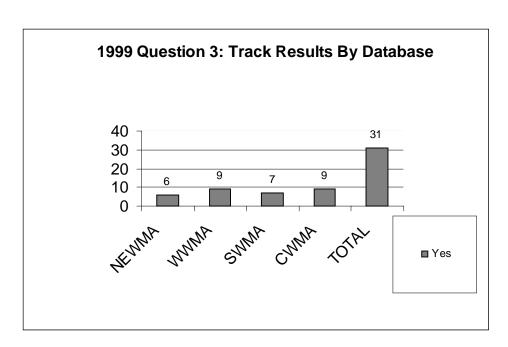
Southern Weights and Measures Association Responses:

- S1 We report these instances of nonconformance to NIST/OWM via the telephone. We do not have a data base to track these devices.
- S2 If the device is rejected, I'm not sure if NIST/OWM is notified.
- S3 The problem is first discussed internally with the device owner, beyond that, I'm not sure. A data base is not being maintained.
- S4 The device manufacturer is contacted first. We track device failure by manufacturer, device number and serial number but not by model number. New software is being added that will allow tracking devices by model number. The LMD side of the department already tracks devices by model number.
- S5 We first contact the device manufacturer. We can track devices by make and serial number. Our field inspectors are relied upon for device history.
- S6 Our jurisdiction does not routinely report instances of non-compliance to NIST/OWM. Inspectors keep the state advised of device problems and we work directly with the device manufacturer to resolve the problem.
- S7 If we find a problem, we first call the laboratory that performed the evaluation and then follow up with a call to NIST/OWM. We don't receive any support from NIST in these endeavors, however. We are concerned that there are inconsistencies among the

NTEP laboratories when it comes to device evaluation and that work is needed in this area. We would like to see a round-robin testing regime among the NTEP labs. We have a data base for gas pumps that tracks them by device manufacturer and model number. We don't have one for scales yet due to attention given to Y2K problems but anticipate having one soon.

- S8 We first attempt to contact the device manufacturer and advise them of the situation. We maintain a data base of devices by serial number.
- S9 Device non-compliance is first discussed internally then we contact the laboratory that performed the evaluation, followed by contacting the device manufacturer, followed by contacting NIST/OWM. We haven't yet had to go through this entire process. We do not have an electronic data base of devices.
- S10 We do not contact NIST/OWM. We do have a data base in place to track by device types.
- S11 We first contact the laboratory that performed the NTEP evaluation followed by the device manufacturer followed by the NCWM Board of Directors. We do not have a data base to track non-compliant devices.
- S12 The device manufacturer is contacted first. Our data base tracks by failure and not by device type or manufacturer.
- S13 We contact the device manufacturer first and then notify NIST of the problem. The matter should end up an the appropriate NTEC sector where the problem is eventually resolved.
- S14 Typically we have contacted the manufacturer of the device and/or NIST/OWM to correct the violation. However in the future we will send the information to the NTEP Board of Directors. Currently we are suing a data track computer system that will allow us to record information about a device such as out of tolerance, not maintained in a level condition, etc. We can make comments about specific violations within this program.





END OF DOCUMENT

