

Appendix G

Industry Letters: Verified Conformity Assessment Program (VCAP)

Letter to the Editor, Weights and Measures Magazine
re: “Open Letters to NCWM”, December 2009 Issue

Three types of parties are involved in weights and measures activity:

- buyers and sellers of goods and services based on measurement
- manufacturers, dealers and service organizations that provide measuring devices
- regulators that set measurement laws and regulations and enforce them

NTEP matters affect all and the issues should be openly discussed in proper forums. Rather than after the fact, any interested individual could have participated and still can participate in the development of standards and procedures by joining with the NCWM Conference and its various NTEP Sectors and Task Forces. The same is true with international standards by joining US National Working Groups dealing with OIML issues.

I have read the article, “Open Letters to NCWM” by Rudi Kolaci that appeared in W&M Magazine’s December 09 issue. I respect Rudi, his desire to be open, and his opinions but in this case they are lacking in knowledge.

Rudi suggests the ultimate measure of quality of a specific measuring device is the number of red tags issued by a W&M official for it and that the marketplace itself will then weed out non-conforming ones. While accepting the need for enforcement, he sets aside the lesson learned over time that this level of enforcement alone is insufficient.

Rather than expect each and every field inspector to evaluate a device against all W&M requirements, the NTEP system employs specialists that perform type evaluations thereby relieving the field inspector from having to perform certain specialized evaluations, particularly those requiring a change in environmental conditions that is not readily possible in the field. The field inspector may then concentrate on determining the device’s validity of measurement on-site and at the environmental condition existing at the moment of testing.

Rudi infers that, when applied to load cells, the NTEP system stifles innovation, new products and new companies from developing new products. When any company wishes to enter a market there are hurdles to overcome. In the case of measuring devices to be used in legal metrology, one hurdle is to gain the necessary authorizations to employ a particular device in legal for trade measurements. This is true for any NTEP kind of device.

The evaluation time and cost to gain authorization might slow the introduction of products with new innovations. NTEP is very conscious of the need to not stifle innovation. The NTEP Administrative Procedure specifically anticipates that the NTEP will encounter features for which test criteria or procedures have not yet been developed. To that effect:

- NIST and Participating Laboratory representatives are to develop “ad hoc” criteria and procedures as expeditiously as possible.
- these are then submitted to the NTEP Technical Committee for ballot or the convening of a specially called meeting depending on complexity and sensitivity of the material. The accepted material will be immediately introduced into the NCWM process, however
- pending completion of the NCWM process, NTEP will issue Provisional Certificates of Conformance based on the material accepted by the Technical Committee.

Rudi correctly identifies that some scales having an NTEP Certificate use non-NTEP load cells. These are scales that can be evaluated through temperature in a chamber. NTEP offers type evaluation of load cells as a separate main component in order to not force the construction of special chambers for the evaluation of larger scales.

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Likewise, some scales use non-NTEP A/D converters while NTEP offers type evaluation of others. This is not to raise barriers to entry but to reduce them.

Rudi sites an example of innovation being stifled when the load cell temperature compensation might be effected remotely. Each load cell has differing characteristics that must be determined. This is no different than various combinations of smart load cell technology. Regardless of where and how various compensations are performed, the scale must meet requirements. Load cells provide outputs and do not normally indicate. When one chooses to gain a NTEP load cell certificate no matter how the cell is configured it cannot be evaluated without the use of an appropriate corresponding readout. The conditions on which a certificate is based are listed thereon.

I expect that despite attempts to twist things about, wisdom will prevail.

JOHN ELENKO
NCWM Member (Retired) and former measurement industry executive

December 26, 2009



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January 18, 2010

Judy Cardin
NTEP Chair
PO Box 8911
Madison, WI 53708

Dear Judy,

As you know, SMA has been a longtime supporter of the NCWM and NTEP process. While we have had some differences on some issues in the past, supporting VCAP has never been one of them.

The SMA and our members have supported the need for a VCAP program from the first time it appeared on the NCWM/NTEP radar. Our support has not wavered. All interested individuals and companies could have participated in the development of VCAP and attended the NTEP weighing sector meetings. Some chose not to.

It is difficult to understand how a reputable company would not be in favor of such a program. Further refinement and development of VCAP is only natural but we urge you to not waiver from your commitment to a level playing field for all parties.

We've all faced the same hurdles in obtaining NTEP Certificates of Conformance. A good quality system is necessary to ensure that production devices perform like those submitted for NTEP evaluation. Let's not allow those deliberately taking shortcuts circumventing the requirements to weaken or eliminate this valuable program.

The time has arrived to level the playing field by removing non-conforming load cells and devices from the marketplace.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Robert A. Reinfried', is written over a white background.

Robert A. Reinfried
Executive Director

C: Don Onwiler
Jim Truex

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National Conference on Weights and Measures
National Type Evaluation Committee

Dear NTEP Committee Members,

I would like to take this opportunity to provide the Committee with my comments regarding the information provided by Mr. Frank Li and other members of the Industry for Better NTEP.

First and foremost, Mettler Toledo has been and will continue to be a strong supporter of the National Type Evaluation Program and the Verified Conformity Assessment Program. The NTEP is a valuable program for all parties:

- It provides a framework for state, county and city weights and measures programs by providing product compliance confidence that a single sample of the product was evaluated and found to conform to NTEP requirements.
- It provides a level of confidence to the owner/user of an approved instrument that the instrument is not favoring either party in a transaction.
- It provides the beginning of a level playing field for all manufacturers of scales or scale components.

While not personally involved in the initial development of NTEP, conversations with those that were, clearly indicate that considerable thought went into all aspects of the program. This includes the understanding of the impact a load cell has on a scales' overall performance when subjected to external influences such as changes in temperature. This understanding created the requirement to evaluate load cells separately if the load cell is to be used in a load receiving element that is too large to be tested inside a temperature chamber. This is a clear example of NTEP and manufacturers developing an evaluation method that insures product conformity with the technical and performance requirements.

We are all aware that technology is constantly changing and these changes permit manufacturers to continuously rethink current designs and in some cases the outcome of this process is a new design approach. NTEP is very open to this concept and has created workgroups called Sectors to embrace these changes and develop new evaluation methods intended to ensure product compliance. To hear suggestions that load cells should no longer be evaluated because of a technology change or advancement is not consistent with the basic principles of NTEP and can only lead one to believe that there are other reasons for this suggestion. I have always been told that NTEP does not evaluate technology but does evaluate a products ability to meet performance and operational specifications. A change in this principle would not only change the current NTEP process; it would also change the basic intent of standards development.

I mentioned at the beginning of this letter that Mettler Toledo supports the Verified Conformity Assessment Program. This support is based on the fact that both the buyer and the seller suffer when scales do not meet NTEP performance requirements. This is what can happen when only

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an initial sample is evaluated and subsequent production samples are not verified. VCAP was created to ensure manufacturers produce scales that continue to meet these requirements not just the first time but at all times throughout the models manufacturing life.

History has shown us that the idea of “trust me manufacturing” has been hurt by the pressures of cost containment, cost reduction and increased sales requirements. We have seen where these pressures have been addressed in some very creative and acceptable manufacturing and process control methods. However, we have also seen, too frequently, where un-acceptable methods have been used and covered up by the “trust me manufacturing” approach. VCAP is designed to ensure that these company objectives are not realized by a reduction in scale performance levels.

The average consumer does not see this and therefore will not demand changes; it is our responsibility as consumers and members of the regulatory community to adjust our requirements to changing needs whether it is the development of a new method of sale or the correction of a weakness in our NTEP program. The implementation of VCAP is one such correction and one that is long overdue.

VCAP is not the first conformity assessment program that places requirements on a scale manufacturer: third party certification agencies such as Underwriters Laboratory, Factory Mutual and NSF have similar programs and audit schedules. VCAP is a program that has long been needed and those companies that decide not to comply or those that can not should not be permitted to offer their products under the NTEP logo.

Regards,



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Head, Quality and Compliance Services

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June 16, 2009

Mr. Jim Truex, NTEP Administrator
National Type Evaluation Program
88 Carryback Drive
Pataskala, OH 43062

RE: Verified Conformity Assessment Program

Dear Mr. Truex,

In preparing for our upcoming VCAP audit, we have encountered a requirement that leaves me a little puzzled. Please recall that the initial device type to be covered by the program is the load cell. Section 1.2 of the VCAP states *Identify the applicable Metrologically Significant Components (MSC's) of the device*. Based on this statement, one might reason that the device, the load cell at this time, contains one or more Metrologically Significant Component. This line of reasoning is further supported by paragraphs 1.2.4.1 and 1.2.4.2 where various examples of MSC's are listed for analog and digital load cells respectively. Granted, paragraph 1.2.4 states that the lists of components may or may not be identified by the manufacturer as a MSC but, I believe, the intent remains that the device or load cell contains at least one, if not more, MSC.

Paragraph 1.2.3 of the VCAP states *Metrological integrity is maintained by verification that the applicable characteristics of those components identified as metrologically significant are unchanged from those used in the device certified*. I believe that the word "verification" in this paragraph implies testing meaning that the individual component(s) used in the load cell that are MSC's must be tested. In fact, the checklist written for the VCAP includes an item asking if test procedures and test records exist for MSC's.

In practice, most or all load cell manufacturers treat the load cell as the MSC and verify its compliance through testing of the completed load cell and not by testing the individual components. Therefore it would seem that some clarification is needed in these sections of VCAP to allow a manufacturer to either identify the completed device as the MSC or to identify components of the device as MSC's. I fear that in its present form, the VCAP does not allow this option.

I have discussed this with Darrell Flocken. Darrell feels that the VCAP does allow the manufacturer this option but also agrees that one could interpret the language as I have. Because it appears possible to interpret this specific language in one of two ways, I respectfully suggest that the language in paragraph 1.2.3 be revised to clarify the options available to the device manufacturer. I suggest the addition of the following underlined text to paragraph 1.2.3 of the VCAP:

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Metrological integrity is maintained by verification that the applicable characteristics of those components identified as metrologically significant are unchanged from those used in the device certified. Verification can also take place by testing of the finished device to verify that it is unchanged from the device certified.

If you have any questions about this suggestion or if I may be of service during the review of this suggestion, please do not hesitate to contact me.

Sincerely,



Stephen Langford, P.E.
Vice president, Engineering Services

Copy Don Onwiler
Darrell Flocken
Mark Knowles

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