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PJLA
Calibration

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Quality Bulletin

Greetings Again,

I am writing this bulletin to address the sometimes confusing interpretations of some of the standards concerning calibration. I need to specifically address the AS9100 Paragraph 7.6 "Control of Monitoring and Measuring Equipment" and its intent.

Over the past several months I had been involved in many AS9100 audits on our customer's behalf, and have witnessed just as many conflicting interpretations from each independent auditor. The paragraph that insights the most controversy is the statement that reads:

"Where necessary to ensure valid results, measuring equipment shall;
c) have identification in order to determine its calibration status;"

One specific interpretation that I found interesting was that .." each and every individual ME shall possess its own specific individual label, listing its own specific calibration status". The auditor went further claiming that this also applies to every V-Block, Angle Block, Gage Pin Set, 1-2-3 Block, Knee, etc. He stated that all afore mentioned gages are capable of taking measurements, so each has to be identified and labeled stating if it is Calibrated or Reference Only.

One specific company had decided that the disposition of all of their gage pin sets was to be Reference Only, which was not in question, but one set was not labeled with a Reference Only sticker – so it cost them a Minor Finding.

Another company had three shelves which contained all of their Reference Only Angle Blocks, 1-2-3 Blocks, V-Blocks, and Machinist Knees. They had labeled each shelf as "Reference Only" gages, but the auditor stated that once you remove it from the shelf, its calibration status is no longer known. They too were issued a minor finding, and required to label each individual gage.

While I whole heartedly agree with the concept and intent, I am not so sure of the application. Because many companies have hundreds of Reference Only gages, the labeling and maintenance of each label and its legibility throughout its life would be impractical and expensive.

I, together with my colleagues, are proposing a different approach that will satisfy the standard and be practical to implement. It seems possible that auditors may misinterpret the goal of the statement from the standard listed above as having (2) choices; you must determine if you can use a measurement gage (Calibrated), or not (Reference Only), and it must be *identified* as such. But the basic fundamentals of dimensional metrology teaches us that you only have (1) choice when selecting a gage to provide a valid measurement result: it *must* be Calibrated and identified with an active Calibration label. So by definition, "Where necessary to ensure valid results, measuring equipment shall be Calibrated and identified with an active calibration label."

The Statement in the Standard also does not require that each and every gage be individually labeled, but only *identified* as to its calibration status. I propose that you *Identify* which measuring equipment can and cannot be used in your Quality Manual therefore complying with the AS9100 Standard. It could read: "Where necessary to ensure valid measurement results, We (Your Company) shall only use measuring equipment that is Calibrated and possess an Active Calibration Label. If the measuring equipment does not possess an Active Calibration Label, it cannot be used for valid measurement results."

In summary, I feel this basically and simply states that if the gage possess any other label, or if the Calibration Label has fallen off, it cannot be used for valid measurement results, and it has been addressed in your quality manual which every employee is familiar with. It could also be inserted into a policy or procedure if needed. I look forward to your feedback.

Best Regards and Success,

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