

MOVE TO CALIBRATION AND MEASUREMENT CAPABILITY (CMC)

WHAT IT MEANS FOR ACCREDITED CALIBRATION LABORATORIES.

Background

Metrological traceability is disseminated to the market by accredited calibration laboratories via the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) and by National Metrology Institutes (NMIs) under the Comité International des Poids et Mesures (CIPM) MRA. This traceability provides reliability in measurements around the world.

Currently, the services provided by many accredited calibration laboratories are described using the term “Best Measurement Capability” (BMC). This terminology is in widespread use in accreditation programs around the world.

NMIs have a similar description of the services provided to their customers; but use the term “Calibration and Measurement Capability” (CMC).

Change of terminology

In order to address this inconsistency in terminology the Bureau International des Poids et Mesures (BIPM) and the Regional Metrology Organisations (RMOs) have, in cooperation with ILAC and the Regional (Accreditation) Cooperation Bodies, arrived at the following conclusion:

“In the context of the CIPM MRA and ILAC Arrangement, and in relation to the CIPM-ILAC Common Statement, the following shared definition is agreed upon:

CMC is a calibration and measurement capability available to customers under normal conditions:

- (a) as published in the BIPM key comparison database (KCDB) of the CIPM MRA; or*
- (b) as described in the laboratory’s scope of accreditation granted by a signatory to the ILAC Arrangement.”*

As a consequence, this means that BMC and CMC shall be considered equal by accreditation bodies, laboratories, their customers, the market and regulators. (The definitions used by the NMIs and the accreditation community were already aligned, but the terminology used to describe them was not.)

ILAC has therefore decided to make a change in terminology and in the future all references to BMC will be changed to CMC (see ILAC 2009-08-20 *BMC to CMC Circular*).

Implications for accredited calibration laboratories

This change in terminology does not mean your current uncertainties need to be re-calculated. The current uncertainty of measurement quoted on your calibration certificates or reports will remain unchanged as a result of this change in terminology. If, however you currently use the term BMC on your calibration certificates, marketing material or documentation this will need to be changed to CMC. (Note: The term ‘uncertainty of measurement’ remains unchanged.)

Please refer to the PJLA Update Notification #12 for implementation dates of these changes.

Greater Harmonization

The intention is to achieve world-wide harmonization of terminology in the dissemination of metrological traceability. Progress towards this goal and also providing clarity in the market place will be greatly assisted by accredited calibration laboratories and NMIs using the same terminology.

Whilst this terminology change will improve the dissemination of metrological traceability through-out the world, the on-going technical issues relating to measurement capability (eg contribution from device under test to the measurement uncertainty) continue to be addressed in-conjunction with BIPM. Future policy documents on these issues will be published in due course.

Further information

- ILAC 2009-08-20_BMC to CMC Circular is available from <http://www.ilac.org/publicationsandresources.html>
- Calibration and Measurement Capabilities – A Paper by the Joint BIPM/ILAC working group available from <http://www.ilac.org/publicationsandresources.html>
- PJLA Update Notification # 12
<http://www.pjlab.com/resources/pjla-updates/>

Contact Details

If you need clarification on these changes, please contact PJLA at:

Perry Johnson Laboratory Accreditation, Inc. (PJLA)
755 West Big Beaver Road, Suite 1325
Troy, Michigan 48084
Telephone-(248) 519-2603
Email-pjlab.com