



Heads Up

Issue: 7

Date: January 19, 2011

To: ACLASS-Accredited and Applicant Calibration Laboratories and all ACLASS Assessors

From: Terry Burgess, Accreditation Manager

Re: ACLASS Policy on Uncertainty in Calibration

BACKGROUND

In November 2010, in an effort to harmonize the expression of measurement uncertainty (MU) on calibration certificates as well as Calibration and Measurement Capability (CMC) in scopes of accreditation, the International Laboratory Accreditation Cooperation (ILAC) published policy document P14, *ILAC Policy for Uncertainty in Calibration*.

Compliance with this new policy is a requirement for all ILAC Arrangement signatory accreditation bodies and their accredited calibration laboratories. P14 requires all accreditation bodies that are full members of the ILAC Arrangement to ensure their accredited calibration laboratories estimate uncertainties of measurement for **all calibrations and measurements** covered by the scope of accreditation. This estimation shall be in compliance with the "Guide to the Expression of Uncertainty in Measurement" (GUM) and/or ISO Guide 35.

ACCLASS POLICY

In accordance with this new ILAC policy, ACLASS will require scopes of accreditation of all ACLASS-accredited calibration laboratories to be supported by uncertainty budgets **by the first reassessment occurring on or after November 1, 2011**. For applicant laboratories, this requirement applies to initial accreditation assessments occurring on or after that date.

For scope of accreditation CMC for electrical parameters (DC/Low Frequency and RF/Microwave), laboratories shall consider the following contributors to uncertainty, as a minimum:

- Uncertainty of the calibration of standards
- Manufacturer (OEM) accuracy specification of standards (unless drift studies have been done and can be produced)
- Resolution of a "best available" unit under test
- Resolution of standards, as applicable
- Repeatability, where feasible (repeatability studies must be available for review)
- Environmental factors

If a particular contributor is found to be insignificant, the accredited laboratory shall document the rationale for review in future assessments. When introducing OEM accuracy specifications into the budgets, laboratories must ensure the absolute values are used and that they are the same confidence level (approximately 95%) as other contributors. These are not consistently listed between manufacturers or even between standards produced by the same manufacturer. If in doubt, contact the OEM.