

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program

LAB BULLETIN

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LAP: Calibration

SUBJECT: ILAC-P14:12/2010, ILAC Policy for Uncertainty in Calibration

The purpose of this bulletin is to advise NVLAP applicant and accredited calibration laboratories of the requirements of ILAC-P14:12/2010, ILAC Policy for Uncertainty in Calibration.

ILAC-P14 contains requirements for accreditation bodies and their accredited calibration laboratories. It describes the ILAC policy regarding requirements that are already part of current NVLAP requirements for calibration laboratories. For instance, NVLAP requires its accredited calibration laboratories to estimate their uncertainties for parameters covered by their scopes of accreditation, and that those estimates comply with the "Guide to the Expression of Uncertainty in Measurement" (GUM).

Furthermore, ILAC-P14 requires that the expression of calibration and measurement capability (CMC) on a scope of accreditation not be ambiguous when considering the smallest uncertainty of measurement that an accredited laboratory can deliver.

ILAC-P14 guides the accredited laboratories to consider the inclusion of uncertainty contributions from repeatability and, when available, reproducibility. It also states that for some calibrations, contributions to the uncertainty attributed to the device under calibration can significantly affect the uncertainty. If these contributions can be separated from the other uncertainty contributions, they may be excluded from the CMC statement. However, if contributions from the device are excluded, then the scope of accreditation must identify that these are not included.

Section 6 of ILAC-P14 gives specific requirements to accredited laboratories regarding the statement of measurement uncertainty on calibration certificates and reports. Accredited laboratories must report the measurement uncertainty on calibration reports/certificates for all accredited calibrations. Otherwise the laboratory must indicate that the measurement is outside its scope of accreditation.

For laboratories not already in compliance with the uncertainty reporting requirements in ILAC-P14, NVLAP will expect implementation beginning with assessments performed after April 1, 2012.

The link to ILAC-P14 is http://www.ilac.org/documents/ILAC P14 12 2010.pdf.

JCGM 100:2008 GUM 1995 with minor corrections found at http://www.bipm.org/utils/common/documents/jcgm/JCGM 100 2008 E.pdf