



# TPS 41

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## Traceability of Measurement

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### CHANGES SINCE LAST EDITION

A marginal line indicates changes from previous edition.  
Revised to clarify that the statement applies generally to measurements made in support of accredited activities.

## 1 INTRODUCTION

- 1.1 This statement applies to laboratory accreditation to ISO/IEC17025 and to other facilities carrying out measurements in support of their accredited activities.
- 1.2 It gives acceptable sources for traceability of measurement in conformance with the policy and principles of ILAC P10:2002, ILAC Policy on Traceability of Measurement Results (which can be viewed at [www.ilac.org](http://www.ilac.org)).

## 2 SOURCES OF TRACEABILITY OF MEASUREMENT

- 2.1 National Measurement Institutes (NMIs) and intergovernmental and international organisations that participate in the CIPM/BIPM Mutual Recognition Arrangement. Acceptability is limited to the uncertainty levels published in the CIPM calibration measurement capability (CMC) tables that comprise an integral part of the MRA and can be viewed at [www.bipm.org](http://www.bipm.org).

In the UK the following national standards laboratories are designated NMIs in the MRA;

- National Physical Laboratory (physical quantities)
- National Engineering Laboratory (flow)
- National Weights and Measures Laboratory (volume)
- Laboratory of the Government Chemist (chemical quantities)

- 2.2 Calibration laboratories that are accredited to the requirements of ISO/IEC 17025, either by UKAS or by another accreditation body that meets the requirements of this policy and is part of the ILAC Mutual Recognition Arrangement (MRA). (The best measurement capability (BMC) of each UKAS accredited calibration laboratory is given in its schedule of accreditation and can be viewed at [www.ukas.org](http://www.ukas.org).)
- 2.3 Other calibration laboratories that can be shown to the satisfaction of UKAS to demonstrate competence, measurement capability and traceability with appropriate measurement uncertainty. (Calibration laboratories that fulfil the requirements of ISO/IEC 17025 are considered to be competent.)
- 2.4 Where traceability to SI units is not technically possible, traceability may be to certified reference materials or consensus standards agreed by UKAS and by the client.

Note 1. Calibration certificates from accredited laboratories should display the accreditation mark of the relevant accreditation body and all calibration certificates should provide a statement of uncertainty (and/or compliance if appropriate).

Note 2. Detailed guidance on traceability requirements for certain specific technical fields may be found in UKAS technical publications M4, accessible via [www.ukas.com](http://www.ukas.com).

### 3 CONTACT

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- 3.1 For further information about this Statement, please contact the Assessment Manager for your organisation or:

UKAS Information Helpdesk, Tel: 020 8917 8400, email: [info@ukas.com](mailto:info@ukas.com)