



TPS 52

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UKAS Requirements for the Performance of In-House Calibrations

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CHANGES SINCE LAST EDITION

1 INTRODUCTION

- 1.1 This technical policy statement outlines the requirements for organisations carrying out in-house calibrations and highlights the aspects that UKAS will assess to determine competence in these activities.
- 1.2 It is recognised that organisations accredited for calibration, testing, inspection or proficiency testing activities may choose to carry out some calibration activities in-house to support their measurement activities rather than seek the services of an external accredited laboratory.
- 1.3 It is essential that in-house calibration activities in support of accredited measurement activities are carried out competently and provide appropriate traceability.
- 1.4 UKAS Publication TPS 41 *UKAS Policy on Traceability of Measurement* sets out the UKAS requirements for traceability of measurements.

2 SCOPE

- 2.1 This policy applies to laboratories, inspection bodies and proficiency testing providers that are carrying out in-house calibrations in support of their measurement activities:
 - for their own use within their own facilities, or;
 - as a facility carrying out calibrations for other accredited sections within their own organisation that has the same senior management and management system.
- 2.2 This policy applies to calibrations in support of measurements e.g. balance calibration, temperature calibrations but excludes activities that could be considered as standardisation, such as the calibration of chromatographs etc.

3 POLICY

- 3.1 Subject to 3.2 below, organisations carrying out in-house calibration are required to ensure that the traceability of their calibrations meets the requirements of TPS 41 and the relevant requirements of ISO/IEC 17025.
- 3.2 If the organisation has established that the associated uncertainty from an in-house calibration makes an insignificant¹ contribution to the total uncertainty of the measurement activity then less stringent requirements for traceability, (e.g. a

¹ For the purposes of this document a single uncertainty contribution that is less than 10% of the largest contribution to the overall uncertainty can usually be taken to be insignificant.

manufacturer's certificate) may be acceptable. In all cases the organisation needs to ensure that the equipment used provides the uncertainty of measurement needed.

- 3.3 Unless 3.2 applies, for all instruments calibrated in-house the following must be in place:
- a) an appropriate environment for carrying out the calibration;
 - b) appropriately trained personnel to both carry out and check the calibrations;
 - c) reference standards, certified reference materials or reference measuring instruments that are traceable with appropriate measurement uncertainties;
 - d) a documented procedure for each type of calibration;
 - e) an appropriate means of recording and reporting the data and results of any calculations;
 - f) a procedure for calculating the measurement uncertainty for each calibration.

4 ASSESSMENT PROCESS

- 4.1 Organisations carrying out in-house calibrations in support of their accredited activities are required to provide details of these calibrations on the UKAS form ACSupp (available from www.ukas.com). It is important that UKAS is notified of changes to these details as soon as they occur.
- 4.2 UKAS will use the information on the ACSupp form to ensure that the appropriate expertise is included in the assessment team to assess these activities.
- 4.3 Wherever possible the assessment of in-house calibrations will be covered as part of the traceability and calibration aspects within normal assessment/surveillance activities.
- 4.4 Where significant additional assessment time or additional assessors are required, there will be an additional cost associated with this activity.
- 4.5 Specialist calibration assessors will be used if the in-house calibration is outside the area of expertise of the assessment team already involved in the assessment of the accredited activities. The assessment procedures used will include document review and on-site witnessing as appropriate.
- Note: On-site witnessing of in-house calibration activities can be expected at least at initial assessment and reassessment visits.*
- 4.6 The ability to perform in-house calibrations will not be included in the published schedule of accreditation. UKAS will however retain records of the in-house calibrations assessed.

5 MEASUREMENT AUDITS

- 5.1 An organisation may be required to participate in measurement audit activities for the in-house calibration activities if it is determined that:
- an assessment has identified concerns about the performance of, or deficiencies in, conducting in-house calibration, or:
 - the organisation has identified nonconforming work in its accredited measurement activities (e.g. poor performance in a proficiency test) and it is reasonable to suspect that the in-house calibration may have contributed to the poor performance.

6 ADDITIONAL INFORMATION

- 6.1 Several guidance documents on the application of ISO/IEC 17025 equipment calibration and traceability requirements to particular items of equipment and forms of measurement and on the evaluation of uncertainty of measurement are available from the UKAS website, www.ukas.com (see *Publications List*).
- 6.2 For further information about this statement, please contact the Assessment Manager for your organisation or UKAS Information Helpdesk (tel: +44 (0)20 8917 8400 or email info@ukas.com)