

Technical competence of CMI to provide metrological services

This document declares technical competence of the Czech Metrology Institute (CMI) to provide metrological services.

The activities of CMI are given by Law No. 505/1990 on Metrology (as amended by the latest regulations, further referred to as “Law”), by implementing regulations of the Ministry of Industry and Trade (MIT) and by the establishing constitutional document of the CMI issued by the MIT.

By these documents CMI is authorized to provide various technical services of public interest in the field of metrology and is constituted as a Government executive agency of a technical nature – a national metrology institute of the Czech Republic which, among others, maintains and develops national measurement standards in compliance with §5 and §14 of the Law. The capability to provide these activities is regularly inspected by the Ministry of Industry and Trade and by the Czech Office for Standardization, Metrology and Testing.

For all the calibrations performed CMI has a unified quality management system (QMS) which fulfils the requirements of CSN EN ISO/IEC 17025:2005 having been harmonized with ISO 9001:2000. This QMS is documented in the quality manual of CMI. The quality manual can be shown to customers on request.

On behalf of the Czech Republic CMI is a signatory of the international CIPM MRA Arrangement (signed in the framework of the Metre Convention in Paris in 1999 – see www.bipm.org) on mutual recognition of national standards and calibration certificates published by the national metrology institutes (NMIs) that signed the arrangement. In agreement with this arrangement calibrations made by CMI in the fields, ranges and with calibration and measurement capabilities (CMC) given in the BIPM database <http://kcdb.bipm.org/> are accepted by the other signatory NMIs and by accreditation bodies associated in ILAC.

Mutual recognition of calibration certificates within the scope of the CIPM MRA is based on mutual confidence supported by implementation of QMS based on ISO/IEC 17025 and by successful participation in international interlaboratory comparisons (so called key and supplementary comparisons). To increase the confidence an international audit of the CMI QMS took place in 2002 within the working group of EUROMET QS FORUM. All the NMIs participating in this project expressed sufficient confidence in the CMI QMS and its ability to fulfil the requirements of the MRA. In agreement with these facts, General Director of CMI issued and published “Self-declaration of quality system in CMI” (see www.cmi.cz). Reports about CMI quality system are sent every year to the Technical Committee for Quality of EURAMET (further referred to as EURAMET TC-Q, www.euramet.org) – before called EUROMET QS FORUM, and they are reviewed by this Committee. In the year 2009 CMI presented and successfully defended its quality management system to EURAMET TC-Q.

Metrological services of CMI provided by CMI laboratories of fundamental metrology are also accepted by the Czech Accreditation Institute (CAI) within the accreditation system. Within the scope of the CAI policy, the national accreditation body of the Czech Republic, as stated in MPA 30-02-XX, derived from the EA policy described in the document EA 4/07, CMI is a national metrology institute that ensures in its laboratories of fundamental metrology the uniformity and accuracy of measurements in all the concerned fields of activity in the Czech Republic and is fully competent to provide metrological services to customers (these calibration certificates are simply recognized in the framework of the accreditation system).

To further increase confidence in the CMI QMS and to meet the requirements of its customers a majority of CMI internal organizational units have been accredited by CAI. Information about the scope of accreditation inclusive the calibration measurement capabilities (CMCs) is available at www.cmi.cz. In 2006 CMI was reaccredited as a unified calibration and testing laboratory. From July 2008 CMI took over the activities of the former organization TESTCOM (Technical and Testing Institute for Telecommunications and Post). TESTCOM is now an independent internal organisation unit of CMI – the department of laboratories is accredited for testing in the fields of electromagnetic compatibility, electrical safety and radio equipment. At present CMI is accredited for 105 calibration procedures and for 7 testing procedures (inclusive sampling of natural gas for motor vehicles).

Based on corresponding accreditations CMI is since 2004 a Notified Body no. 1383 for conformity assessment activities associated with EU NAWI Directive (90/384/EEC, now revised as 2008/23/EC), extended in 2006 to cover the MID Directive (2004/22/EC) and for Radio and Telecommunications Terminal Equipment Directive (99/5/EC) as well. To carry out those activities CMI is accredited by CAI as a certification body for measuring instruments. Since 2003 CMI has been accredited as an organizer of interlaboratory comparisons of metrological laboratories – it is active both on national level and internationally.

The other metrological services, beyond the scope of CIPM MRA or the accreditation by CAI, are subject to

regular interlaboratory comparisons and are carried out in accordance with the requirements of EN ISO/IEC 17025 as well under the unified CMI QMS.

Certain specific QMS standards, like e.g. ISO/TS 16949 for automotive industry, require accreditation of the labs providing them external calibration services. For an interpretation of this requirement the exact wording of this provision of the standard has to be taken into account. In case of ISO/TS 16949 the fact is that the art. 7.6.3.2 requires accreditation of the laboratory as such providing the service but not specifically accreditation of each individual calibration – therefore, even non-accredited calibrations carried out by (otherwise) accredited lab meet this requirement. Namely, it is assumed that that the lab has a unified QMS covering all the calibrations performed so that there is a well-based presumption of its technical competence in the non-accredited area as well which is the case of CMI as well.

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