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Accreditation of reference material producers or certification of reference materials?

The point of view of European product certification bodies

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EUROLAB¹ and CEOC² hold a Joint Technical Committee on Product Testing and Certification, JTC PTC. The committee represents the position of a broad community of certification bodies. The JTC PTC has followed the discussions on third party assessment of reference materials (RMs). The main points can be summarised as follows:

- Third party assessment of reference materials is not always necessary and should therefore not be made a requirement
- The RM producer may, however, wish to demonstrate his competence, which may be achieved by third party assessment
- Besides accreditation, certification is also a possibility for third party assessment of reference materials
- Accreditation of an RM producer may cause a conflict with the principles of accreditation versus certification

Due to the wide range of different testing parameters and matrices, a broad variety of reference materials with strongly different characteristics is required. In addition, reference materials cover a wide range of applications: they may range from internal reference samples to the calibration of instruments. There are in-house RMs as well as certified RMs (with a certified assigned value) which are useful for their respective purposes. The requirements for the RM properties like stability and measurement uncertainty vary according to their application. Also, the degree of trust needed in the properties of the reference material may differ. A possibility for an RM producer to demonstrate his competence and to increase confidence in the RMs is third party assessment. It must be recognised though, that all categories of RMs are useful for their purposes and that it would not be practical if accredited laboratories would be required to use third party assessed RMs only. Besides the increasing costs of RMs caused by third party assessment this would lead to a decrease in number and variety of RMs. This is the general view of EUROLAB (see “The accreditation of reference material producers – EUROLAB’s position” in this edition).

If an RM producer wants to demonstrate his competence, he may do so by third party assessment such as ac-

¹ European Federation of National Associations of Measurement, Testing and Analytic Laboratories

² European Confederation of Organisations for Testing, Inspection, Certification and Prevention

creditation or certification. Because of the wide variety of RMs and test methods, their properties also vary a lot. In principle, either testing or production can be the essential step in making a reference material and defining its properties. For example a soil sample may be needed as an RM for chemical analysis. The soil will be tested for its chemical composition as the main step. A different example would be a vulcanised rubber material for measuring the surface grip property of streets. Here, the mixture and the production process both play an essential role for the properties of the RM. In this respect either accreditation as a testing laboratory or certification of the product may be the more appropriate way of third party assessment. Of course, the RM producer will have to be accredited as a first party testing laboratory (e.g. according to ISO/IEC 17025 plus the requirements of ISO Guide 34) and not as an independent third party. JTC PTC would like to point out that both ways, i.e. accreditation and certification, are possible and should be applied as appropriate.

Concerning accreditation of an RM producer, an important political aspect has not yet been sufficiently considered in the discussions. This aspect is the conflict of the principles of accreditation versus certification. RM providers do not only test RMs, but they also sell them. As such, their accreditation would be an accreditation of a producer and vendor. But this is actually the playing field of certification.

JTC PTC is afraid that if accreditation bodies start to accredit reference material providers it will only be a minor step to accredit the providers of testing instruments, glass ware, scales, etc. This field, however, must remain the field of product certification. One main reason for this is the liability question: who takes the risk? Product certification includes surveillance of the product as such while accreditation focuses only on the performance of the provider. Therefore, accreditation cannot accept the responsibility.

JTC PTC hopes that these aspects will be considered in the future developments in conformity assessment.