Technical Bulletin: Forensic on-site testing activity and the use of ISO/IEC 17020 and ISO/IEC 17025

10 August 2021

UKAS has utilised both *ISO/IEC 17020 Conformity assessment – Requirements for the various types of bodies performing inspection* and *ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories* within the forensic sector to assess and accredit scene of crime examination and testing conducted in laboratories respectively.

When scene of crime examination is conducted, even if this includes an element of testing at the scene, ISO/IEC 17020 has been used for the assessment and accreditation of these activities.

However, where the activity conducted away from the laboratory is primarily a testing activity the use of ISO/IEC 17025 becomes the more appropriate standard.

UKAS has recently received several enquiries from Forensic Units as to which of the standards listed above is the most appropriate for the activities that they conduct on-site and as a consequence UKAS has produced this Technical Bulletin to assist Forensic Units to review the activities that they conduct and to then consider which standard would be the most appropriate to assist their preparation for accreditation.

ISO/IEC 17020 is a standard for inspection, and whilst it is possible to include testing as part of the inspection process, it is not used where testing is the primary activity. ISO/IEC 17025 is the standard that is used for the assessment of testing activities, irrespective of whether these are conducted within a permanent laboratory or on-site, for example, at a crime scene or designated location e.g. police station.

Within the forensic sector on-site testing could be conducted at a crime scene, for example, presumptive testing for blood, fingerprint enhancement, extraction of data from a mobile phone. So, to determine which standard is most suitable for the assessment of this activity the following guidance is provided.

ISO/IEC 17020 is most appropriate where the Forensic Unit reviews the crime scene and formulates a strategy that identifies the significance of potential evidence types / items for subsequent recovery and/or testing; some of this testing could in some circumstances be conducted at the scene, for example, presumptive testing for blood or enhancement and recovery of fingermarks. This on-site testing could be conducted by the Forensic Unit themselves under ISO/IEC 17020 or they could request another Forensic Unit to conduct this testing under ISO/IEC 17025.

ISO/IEC 17025 is most appropriate where the Forensic Unit is directed to conduct testing at a crime scene on evidence types / items which another Forensic Unit has already identified as significant, or at a location away from the permanent laboratory, for example a police station, on items that have been identified in advance. This testing could be accredited under ISO/IEC 17025 as on-site testing.

For example, if ‘Forensic Unit A’ performs a scene of crime examination and identifies that there are fingermarks on a surface that require specialist techniques to enhance and recover the marks, they could request that ‘ Forensic Unit B’ attend the scene to enhance and recover marks on a particular surface / area. In this example ‘Forensic Unit A’ could hold ISO/IEC 17020 accreditation and ‘Forensic Unit B’ ISO/IEC 17025 accreditation.

Within the area of Digital Forensics, 'Forensic Unit A' could assess the scene and also devise and carry out a strategy for the identification, selection and prioritisation of items / devices containing digital data relevant to the case scenario. 'Forensic Unit B' could attend the scene to conduct data extraction on items provided by Forensic Unit A. In this example 'Forensic Unit A' could hold ISO/IEC 17020 accreditation and 'Forensic Unit B' ISO/IEC 17025 accreditation.

Where a Forensic Unit already holds ISO/IEC 17025 accreditation for an activity in the laboratory e.g. extraction of data from a mobile phone, enhancement / recovery of fingermarks, then it could extend the scope of its ISO/IEC 17025 accreditation to include on-site testing via the submission of an AC4 application. This extension to scope would need to be assessed to review the performance of the tests on-site and to review the additional aspects that come with conducting testing away from the permanent laboratory site, for example, validation, confidentiality, equipment, competence. Once granted, this extension to scope would be included within the Forensic Unit's ISO/IEC 17025 Schedule of Accreditation as an additional location.

Additional examples of conducting testing away from the permanent laboratory may be the extraction of data from an identified mobile phone conducted at a police station, or recovery of data from CCTV units located on commercial premises.

It should be noted that the requirements detailed in both ISO/IEC 17020 and ISO/IEC 17025, and expanded in ILAC G19 and RG201, are very similar when applied in a forensic context, in fact some requirements of ISO/IEC 17025 will be considered during the assessment of testing that is conducted as part of an inspection process. Therefore, the main priority for a Forensic Unit is to prepare for accreditation even if a different standard than that identified by the Forensic Unit is later determined by UKAS to be more appropriate at the application stage. If this is the case, a revised application form will be required, however, there will be no charge associated with the submission of the replacement application form.

If you require any further clarification, please contact your Assessment Manager, or info@ukas.com if your organisation does not hold any accreditation.