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# HKIAS Supplementary Criteria No. 7

## Scene of Crime Investigation

### 1 INTRODUCTION

- 1.1 This document serves to clarify and supplement the requirements of HKAS 002, HKIAS 003 and other relevant HKAS and HKIAS requirements for the accreditation of forensic science organisations (inspection bodies) carrying out scene of crime investigation.
- 1.2 This document does not cover forensic testing activities carried out in a laboratory. Accreditation of forensic testing activities is offered under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) of HKAS.
- 1.3 The assessment of a forensic science organisation carrying out scene of crime investigation will utilise techniques including but not limited to the following:
  - Witnessing of the investigation of a real/mock-up scene
  - Witnessing of demonstration of individual techniques
  - Interviewing of personnel
  - Review of case records

### 2 TERMS AND DEFINITIONS

- 2.1 The term ‘shall’ is used throughout this document to indicate those provisions which are mandatory. The term ‘should’ is used to indicate guidance which, although not mandatory, is provided by HKAS as a recognised means of meeting the requirements.
- 2.2 The term ‘scene of crime’ is used in this document to identify a scene of incident prior to establishing whether a criminal or illegal action has taken place or not. The scene of crime is not solely restricted to the location of the incident (primary scene of crime), but also includes areas where relevant acts might have been carried out before or after the incident (secondary scene of crime). In addition to the obvious scenes of crime, this may also include accident investigations, suspicious fires, vehicle accidents, terrorist attacks, and disaster victim identification.

### 3 IMPARTIALITY AND INDEPENDENCE (HKIAS 003 Clause 4.1)

- 3.1 To ensure the impartiality and independence of all staff, the forensic science organisation shall implement a Code of Conduct (however named). The Code of

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Conduct shall be applicable to all personnel. In some disciplines, there are well-defined and recognised standards established for ensuring the conduct of personnel in those disciplines, for example, ‘The Code of Practice for Expert Witnesses Engaged by the Prosecuting Authority’ issued by the Prosecution Division of the Department of Justice of the HKSAR and ‘Codes of Practice and Conduct for Forensic Science Providers and Practitioners in the Criminal Justice System’ issued by Forensic Science Regulator, UK. Those standards shall be adopted as far as possible in the Code of Conduct of the forensic science organisation if they are relevant to the organisation’s work. Other requirements on Code of Conduct are detailed in HKAS 002 and HKAS Supplementary Criteria No. 6.

#### **4 CONFIDENTIALITY (HKIAS 003 Clause 4.2)**

- 4.1 The forensic science organisation should ensure that staff are aware of the potential threats to confidentiality and what action to take to preserve confidentiality when attending scenes of crime. This policy should be documented in relevant management system documentation. It should emphasise that the gathering of information relevant to the scene activity is to be encouraged, however, the dissemination of information shall be restricted to those with legitimate access to the information on a need-to-know basis.

#### **5 PERSONNEL (HKIAS 003 Clause 6.1)**

- 5.1 The role of all personnel involved in scene of crime investigation and requirements on qualifications, training, experience and knowledge for each role shall be clearly defined. In particular and where applicable, competence required for investigating different types of scenes and/or reporting interpretation and opinions of results and findings shall be clearly defined.

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- 5.2 Management or persons responsible for the forensic science organisation shall be able to demonstrate with objective evidence that all personnel are competent in carrying out their assigned duties by assessments against defined criteria of their knowledge and skills.
- 5.3 Training programme shall be well-defined and up-to-date. The forensic science organisation should demonstrate how it ensures that personnel involved in scene of crime work are kept up to date with the latest developments in technology relevant to the service. Where necessary, training programmes should include training in the presentation of evidence in court.
- 5.4 The forensic science organisation shall have procedures for on-going training and maintenance of competence, skills and expertise. Demonstration of on-going competence may include, but not be limited to, re-examination of completed scenes, review of completed case records, witness of the examination of mock-up or real scenes, and monitoring of performance figures.
- 5.5 The forensic science organisation shall maintain up-to-date records of training of each personnel involved in scene of crime investigation. Records shall be sufficiently detailed to provide evidence that they have been properly trained and that their competence to perform a task has been formally assessed.
- 5.6 All personnel involved in scene of crime investigation shall be monitored at least annually. However, the forensic science organisation may increase this frequency for newly trained or less experienced staff.
- 5.7 The monitoring of the performance of staff carrying out scene of crime investigation shall include on-site witnessing. On-site witnessing should be carried out by suitably trained and technically competent personnel who are sufficiently independent to carry out the witnessed activity objectively. The programme for witnessing should be designed so that each scene-going member of staff is witnessed at least once in an accreditation cycle. The assessment should include both technical aspects and interactions with people at scenes.
- 5.8 HKAS operates an **approved signatory** system for scene of crime investigation. An approved signatory is an individual to whom HKAS Executive has given approval for signing endorsed reports or certificates for specified activities. As approvals are granted in the context of scene of crime investigation being performed under the relevant management system of an accredited forensic science organisation, they are not to be considered as personal qualifications. Please also note that there is no approved inspector system implemented for scene of crime investigation.

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5.9 Nominees for signatory approval for signing endorsed reports for scene of crime investigation shall hold a bachelor degree or an advanced degree and have at least two years of experience in the relevant activities for which approval is sought to cover. Relevant professional qualifications in lieu of academic qualifications as stated above may also be considered as acceptable. On a case by case basis, lower academic qualifications may be acceptable but the nominee shall have extensive experience of at least ten years in the relevant activities for which approval is sought to cover. The nominee shall also have fulfilled the forensic science organisation's training requirements, be assessed and authorised by the forensic science organisation to be competent in reporting the results concerned.

Other requirements for approved signatories are detailed in Clause 7.4.I of HKIAS 003.

Nominees satisfying the above requirements and assessed by the HKAS assessment team to be competent will be accepted as an approved signatory.

## **6 FACILITIES AND EQUIPMENT (HKIAS 003 Clause 6.2)**

- 6.1 Documented procedures shall be available for the use of equipment at scenes of crime. A documented schedule for the checking of relevant equipment shall be defined to demonstrate continuing fitness for the intended purpose.
- 6.2 The facilities and equipment shall only be used by authorised personnel. Appropriate security measures shall be available to prevent unauthorised access to items, records, equipment and consumables held by the forensic science organisation.
- 6.3 The forensic science organisation shall have documented the conditions under which equipment can be used. Where equipment not under the direct control of the forensic science organisation is used, it shall verify that the equipment meets all relevant requirements before each use.
- 6.4 Some pieces of equipment used at the scene of crime may require self-checks, verification or use of a reference material that validates the calibration and function status as shown to be satisfactory. Verification of equipment performance shall be conducted in accordance with instructions provided in the equipment manual, and shall be done by staff with recognised competence to operate and verify the equipment.
- 6.5 The forensic science organisation shall assess the risks of potential contamination of equipment used at scenes and take appropriate actions to prevent cross contamination. Policies and procedures shall be in place for the use of disposable equipment to ensure that such equipment does not contribute to

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contamination through misuse or re-use.

- 6.6 The forensic science organisation shall have written procedures for the reception, handling, preparation and storage of reference materials, reagents and consumable relevant to scene of crime investigation. Inventory of reference materials, reagents and consumables shall be maintained, which should contain information such as lot numbers, date of receipt and date of being placed in service. Each reference material and reagent shall be properly identified and should be labelled with its shelf life, concentration (where relevant), storage condition (where relevant), hazard warning (where necessary) and preparation information.
- 6.7 Any reference materials and critical reagents used for scene of crime investigation shall be demonstrated as fit for purpose for the procedure used. Incoming lots/batches of critical reagents shall be tested for reliability and results shall be recorded.

## **7 SUBCONTRACTING (HKIAS 003 Clause 6.3)**

- 7.1 HKIAS policy on subcontracting is detailed in HKIAS 003 Clause 6.3.I and HKIAS Supplementary Criteria No. 5.

## **8 INSPECTION METHODS AND PROCEDURES (HKIAS 003 Clause 7.1)**

- 8.1 The forensic science organisation shall demonstrate that methods used in scene of crime investigation are fit for purpose. The organisation shall validate/verify any techniques that it uses at scenes. Records of validation/verification shall be maintained. The organisation shall also demonstrate the suitability of the whole process of scene investigation.
- 8.2 When the forensic science organisation adopts a method that has been validated by others, it shall review such validation to ensure that it is fit for the intended use and verify if it is competent to perform the method. Where the validation has previously been conducted in a laboratory environment, further validation shall be conducted considering additional aspects that may have significant impact on the tests (e.g. temperature, humidity, lighting etc.).
- 8.3 All forensic investigation activities (e.g. photography, measurement and sketching, evidence identification and collection) shall be fully documented including procedures for quality control, where appropriate, and guidelines for the interpretation and reporting of results.

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8.4 The quality control procedures necessary in any particular area of work shall be determined by the forensic science organisation, based on best professional practice. The procedures shall be documented and records shall be retained to show that all appropriate QC measures have been taken, that all QC results are acceptable or, if unacceptable, that remedial action has been taken.

8.5 Any interpretation and opinion made shall be supported by a documented body of evidence. Limitations of the examination/testing method used shall be fully considered. For example, definitive conclusions shall not be drawn from presumptive testing.

8.6 Critical findings shall be reviewed before being reported. Where a check of critical finding is the only quality control measure, it shall be performed without knowledge of the original result and this independence shall be identifiable from the records. The frequency of performing such measure shall be defined.

Note: Critical findings are observations and results that have a significant impact on the conclusion reached and the interpretation and opinion provided. In addition, these observations and results cannot be repeated or checked in the absence of the exhibit or sample, and/or could be interpreted differently.

8.7 Where available and appropriate, the forensic science organisation shall participate in proficiency testing (PT) activities relevant to the testing activities that directly affect and determine the result of the scene of crime investigation.

8.7.1 At a minimum, the organisation shall participate in one PT activity that is provided by external providers annually in each discipline and major subdiscipline, if available, relevant and suitable to the testing activity performed. If suitable external PT activity is not available, the performance of the organisation shall be assessed and monitored by alternative means.

8.7.2 Each personnel engaged in testing activities relevant to scene of crime investigation shall successfully complete at least one external or internal PT activity annually in his/her discipline(s).

8.7.3 Please also refer to clause 3.4 of HKIAS Supplementary Criteria No. 5 for general requirements on PT activities for inspection.

8.8 The forensic science organisation shall inform its customers of the scope of activity it is able to offer. Where necessary, instruction should be provided to the customer on, for example, how to best preserve the scene of crime and evidence.

8.9 In situations where verbal agreements with customers are acceptable, the

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forensic science organisation shall keep a record of all requests and instructions received verbally, dates and the identity of the customers.

- 8.10 The forensic science organisation shall have a policy and procedure for appointing and assigning personnel responsible for each case of scene of crime investigation.
- 8.11 The forensic science organisation shall decide on the techniques/equipment required, the samples that need to be taken and the sequence of sampling and/or examination at the scenes. All these aspects shall be recorded.
- 8.12 In some circumstances, customers may provide additional or background information at the scene of crime or otherwise, which should be considered or explicitly examined during the investigation. If such additional or background information is used, the information and its source shall be recorded.
- 8.13 The forensic science organisation shall have a procedure for maintaining a safe and secure work environment for its personnel. It should consider and cover work carried out at sites or in temporary or mobile facilities.

## **9 HANDLING INSPECTION ITEMS AND SAMPLES (HKIAS 003 Clause 7.2)**

- 9.1 The forensic science organisation shall have documented procedures which describe, where applicable, the collection, packaging, transportation, handling and disposal or return of collected or submitted items, the measures to be taken to prevent loss and contamination, and measures to secure exhibits which have to be left unattended e.g. in vehicles.
- 9.2 A 'chain of custody' record shall be maintained for the collection of items which details each person who takes possession of an item or alternatively the location of that item (i.e. if in storage). 'Chain of custody' records that detail each person or organisation taking possession of an item/exhibit and the date/time of each transfer shall be maintained from the receipt (including collection) of the items/exhibits through processing to storage and where applicable to return to client, or disposal.
- 9.3 Where it is possible to record or copy an item or significant features of an item or location (e.g. photographs, tape lifts, casts), the forensic science organisation shall clearly define what is considered evidence and what is considered documentation.
- 9.4 Where it is not possible to preserve potential evidence, for example, it may be

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necessary to remove part of a blood pattern for DNA analysis. In such a situation, the potential evidence shall be documented and/or measured using suitable recording techniques prior to its removal.

- 9.5 The effects of the environmental conditions shall be considered to avoid loss or deterioration of exhibits. When significant environmental conditions cannot be controlled, e.g. weather conditions at a scene of crime, the actual conditions shall be recorded. The access to the scene of crime should be controlled. Suitable personal protective equipment and other equipment for preventing cross contamination or preserving the scene of crime should be available for staff conducting the investigation.
- 9.6 The packaging used at scenes should be appropriate. Any deviation with respect to this shall be noted, along with the reason for the departure.
- 9.7 Items should be sealed and labelled at the point of seizure, and if this is not done the reason shall be documented. In any case the integrity of the item and other related items shall be ensured.
- 9.8 Policies and procedures shall be documented relating to prevention of cross-contamination between items collected, for example, segregation of items relating to suspect / victim, flammable liquid and fire debris.

## **10 INSPECTION RECORDS (HKIAS 003 Clause 7.3)**

- 10.1 The details of records of the scene examination shall be sufficient that in the absence of the examiner another competent examiner could evaluate/determine what had been undertaken at the scene, including the strategy, the anti-contamination measures adopted, the activities undertaken, the items recovered, and if necessary repeat the interpretation made.
- 10.2 The scene records shall clearly describe what information relating to the case scenario has been received prior to scene attendance and which has been obtained at the scene, and the source of such information.
- 10.3 The forensic science organisation shall have documented procedures to create and maintain records relating to each case under investigation. The information that is to be included in case records shall be documented. Such a list may include, but is not limited to:
  - a. Case Identifier;
  - b. Records of communication with clients and contract review;
  - c. List and description of locations/items inspected;
  - d. List of items collected, if any;
  - e. Chain of custody records for each item of evidence collected;

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- f. Evidence receipts for items sent to testing;
- g. Copies of all results from testing performed and reviewed as part of the investigation;
- h. Description of investigations performed;
- i. Investigation results and reports;
- j. Reference to procedures used; and
- k. Drawings, photographs, etc.

The records shall be sufficient to provide an auditable trail.

10.4 Records of observations shall be made at the time of the examination or as soon as practicable thereafter, and these shall include, where relevant, who carried out the scene of crime investigation, date, location, sampling, examination/testing results, quality checks and conditions of examination/testing. Where instrumental analysis is conducted, operating parameters should be recorded. It shall be clear from the case record who has performed each stage of the investigation and when each stage was performed (e.g. relevant date(s)).

10.5 Any changes made to records, whether in hard copy or electronic form, should be retained so that the original information can be reviewed. When an examination result is rejected, the reason(s) shall be recorded, along with the date and an identification of who has rejected the result. Electronic records shall be protected from unintended changes. Controls shall be in place to prevent unauthorized access, loss of files/data and to ensure the continued integrity of the records.

10.6 Examination records shall be paginated using a page numbering system which indicates the total number of pages and end of document. Each page of every document in the case record shall be traceable to the case and the staff performing the investigation (or an equivalent system for electronic records).

10.7 Where the records of investigation are in different formats, for example, hard copy notes, electronic files, photographs, or stored in different case record systems, it shall be possible to identify all records relating to a specific case and the locations of each component of the complete record.

## **11 INSPECTION REPORTS AND INSPECTION CERTIFICATES (HKIAS 003 Clause 7.4)**

11.1 It is a requirement of ISO/IEC 17020 that results are reported correctly, accurately and clearly. The reports issued by the forensic science organisation shall be complete and shall contain the information on which an interpretation might be made. Simplified reports may be provided if agreed with the customer, however it is important that the extent of the simplification does not itself lead to

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ambiguity in reporting.

11.2 It is understood that a forensic science organisation may not be able to include all of the items that are detailed in ISO/IEC 17020 in their reports or 'Court Statements'. Therefore, the organisation may adopt one or more of the following means of meeting these requirements:

- preparing a report which includes all of the information required by ISO/IEC 17020 as appropriate;
- preparing an annex to the report or Court Statement which includes any additional information required by ISO/IEC 17020 as appropriate;
- ensuring that the case records relating to a specific case contain all the relevant information required by ISO/IEC 17020 as relevant.

11.3 There shall be a clear indication in the report of which parts are background information, which are facts, which are results and findings, and which are interpretations or opinions. It shall be clear in the report on what an interpretation and/or a conclusion is based. Interpretations/conclusions shall be properly qualified.

11.4 The forensic science organisation shall have a procedure and criteria to decide when and to what extent a technical review of a report needs to be performed. Technical review should be performed by a qualified person with the appropriate competence to confirm the validity of the results, as defined by the organisation.

11.5 If oral report is permitted, it shall only be given by suitably competent staff and followed by a written report. The identity and appropriateness of the recipient shall be established. All oral reports shall be recorded in a traceable manner, including the client's identity, the date and time the report is conveyed, identification check where relevant, and the information conveyed.

## **12 COMPLAINTS AND APPEALS (HKIAS 003 Clause 7.5)**

12.1 Responses to any complaints, appeals or opportunities for improvement shall include examination of the potential impact on any work, which has been undertaken by the forensic science organisation. If it is shown that there could have been an impact on any work, it shall be dealt with through the non-conforming work process.

## **13 DOCUMENT CONTROL (HKIAS 003 Clause 8.3)**

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13.1 The requirements for the accessibility and control of documents apply to permanent facilities and also to all sites or locations where work is performed, e.g. scene of crime. Relevant documents shall be available at the point of use

#### **14 CONTROL OF RECORDS (HKIAS 003 Clause 8.4)**

14.1 The forensic science organisation's policy on retention of records shall consider legal requirements and customer expectations.

#### **15 INTERNAL AUDITS (HKIAS 003 Clause 8.6)**

15.1 The internal audit programme shall include observation of the examinations undertaken on-site.

#### **16 CORRECTIVE ACTIONS (HKIAS 003 Clause 8.7)**

16.1 Non-conforming work identified and actions taken in response shall be recorded. Corrective actions shall include an examination of the potential impact on any work that has been undertaken by the organisation for scene of crime investigation.

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## **Annex (Informative)**

### **List of references**

1. ILAC G19, Modules in a Forensic Science Process
2. ILAC P9, ILAC Policy for Participation in Proficiency Testing Activities
3. UKAS RG201, Accreditation of Bodies Carrying out Scene of Crime Examination
4. A2LA C318, Specific Checklist: Forensic Examination Accreditation Program - Inspection