

MINIMUM REQUIREMENTS FOR CRIME SCENE INVESTIGATION

A document for emerging laboratories

International Forensic Strategic Alliance Version 2





INTERNATIONAL FORENSIC STRATEGIC ALLIANCE

MINIMUM REQUIREMENTS FOR CRIME SCENE INVESTIGATION

A document for emerging laboratories IFSA MRD 1



Version 1 of this document was first released October 2014. The document has been updated and is now released as Version 2.

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INTRODUCTION

The International Forensic Strategic Alliance (IFSA) has developed this document to be minimum requirements which will enable emerging forensic providers in developing countries to produce scientific services to the Criminal Justice System.

The purpose of this document is to establish a baseline or starting point that must be followed in order to achieve reliable results. Forensic providers should build on this foundation and strive to continually improve the quality of services provided.

This document describes the minimum requirements for crime scene investigation. It addresses the following framework:

- 1. Competence of Personnel.
- 2. Equipment and Consumables.
- 3. Collection, Analysis, Interpretation, Reporting.
- 4. Procedures, Protocols, Validation.
- 5. Quality Management.



FOREWORD

The International Forensic Strategic Alliance (IFSA) is a multilateral partnership between the six regional networks of operational forensic laboratories:

- la Academia Iberoamericana de Criminalística y Estudios Forenses (AICEF)
- the American Society of Crime Laboratory Directors (ASCLD)
- the Asian Forensic Sciences Network (AFSN)
- the National Institute of Forensic Science Australia New Zealand (NIFS ANZ)
- the European Network of Forensic Science Institutes (ENFSI)
- the Southern Africa Regional Forensic Science Network (SARFS).

IFSA works closely with its three strategic partners, Leverhulme Research Centre for Forensic Science, United Nations Office on Drugs and Crime (UNODC) and INTERPOL.

IFSA recognises the importance of a quality management framework in forensic laboratories to provide quality and standardised results, be it procedures undertaken in the field or in the laboratory.

In February 2012, at the special IFSA meeting hosted by UNODC and convened in Vienna to discuss the needs of the emerging forensic laboratories in developing countries, a decision was taken to create a set of minimum requirement documents (MRD) filling the gap in recommendations available for the current management of these laboratories.

In October 2014, the first series of three documents in the specific areas of identification of seized drugs, DNA analysis, and crime scene investigation were created. These documents have focused on the critical quality areas, using simple terms and illustrations. All three MRDs have now undergone update and further review with version 2 of these documents published in December 2020. At the time of writing, a further three MRDs in the areas of digital and media evidence, document examination and latent fingerprint analysis are currently in development. A separate glossary document has also been created to guide the users through the important concepts of this documents.

These MRDs are meant to act as a start-up guide for emerging forensic laboratories to quickly establish their quality management system and scientific/technical capabilities. Once achieved, the laboratories should continue to build on this foundation and strive to continually improve the quality of services through undergoing accreditations to established standards.

In the drafting of these documents, scientific working groups and experts from the six regional forensic science networks, as well as IFSA strategic partners, made valuable contributions during the various rounds of consultation. The final MRDs presented in this series would not be possible without the involvement of all.

It is IFSA's hope that these documents will play an important role for emerging forensic laboratories in their journey towards building quality forensic services.

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1 COMPETENCE OF PERSONNEL

All crime scene investigation unit personnel shall have a clear understanding of their duties and responsibilities and should fulfil these at all times according to a code of ethics/professional practice/conduct ¹ (see the examples in the footnote below) adopted by the unit.

This section recommends minimum education and training required for personnel to conduct crime scene investigation.

Those attending and processing a crime scene should have the relevant skills, knowledge and experience to ensure that:

- they are informed of the relevant circumstances of the incident that may assist with conducting an examination;
- accurate records (e.g. notes and photographs) are taken throughout and retained;
- appropriate items (e.g. contact traces/physical evidence) are located, collected/recovered, preserved, stored and/or submitted for testing;
- appropriate PPE is worn to minimize the potential for contamination and loss of evidence as well as protection to the individual;
- the integrity of the scene and any items collected are maintained; and
- a report is made of the examination and any relevant findings.

The skills and knowledge required will vary with the complexity of the crime scene being examined. For more complex crimes, reports should be peer reviewed by other competent personnel prior to issue.

1.1 EDUCATION

Personnel shall have education, skills and abilities commensurate with their responsibilities. This may include tertiary education in a relevant discipline for crime scene investigators involved in processing scenes of serious or complex crime (e.g. homicides). The outcomes of such education and training should enable the crime scene investigator to:

- communicate in a forensic science environment;
- manage complex forensic investigations;
- examine crime scenes;
- record incident scenes and evidence;
- use and maintain specialist forensic equipment;
- apply the relevant science to scene investigations;
- comply with quality systems;
- apply case management systems;
- co-ordinate forensic evidence analysis; and
- prepare and present written and verbal specialist forensic evidence to stakeholders including the court.

¹ Examples of Code of Ethics adopted by regional forensic science networks:

[•] The American Society of Crime Laboratory Directors (ASCLD) - www.ascld.org

[•] The European Network of Forensic Science Institutes (ENFSI) – <u>www.enfsi.eu</u>

 $[\]bullet \ \, \text{The National Institute of Forensic Science Australia New Zealand (NIFS ANZ)} - \underline{www.anzfss.org} \\$

[•] La Academia Iberoamericana de Criminalística y Estudios Forenses (AICEF) – <u>www.aicef.net</u>

The Asian Forensic Sciences Network (AFSN) – www.asianforensic.net

1.2 TRAINING

The crime scene unit should have a documented training plan for new personnel or new tasks, documenting the required standards of performance, competency, and assessment plan. The assessment can be done, for example, through fulfilled training plans or the investigation of a training set up crime scene. The training should be delivered by experienced and competent personnel.

The training program shall include a training manual covering all procedures that the investigator will employ in the course of casework, as well as on the code of ethics. The training program shall teach and assess the technical skills and knowledge required to perform a crime scene investigation. Personnel should be assessed as competent prior to assuming independent casework. A competency test will ensure proper skills and knowledge was acquired during training. Training may be augmented by participation in external courses or workshops.

A program for continued education should be established and to ensure investigators stay abreast of technical developments. The program may include conference/ seminar/course attendance, webinars, and review of scientific literature and other methods of self-learning

Training and competency tests should be documented, and records retained according to guidelines established by the crime scene unit.

Planned and structured in-house training programs delivered by experienced practitioners should be available for those involved in processing scenes related to minor or volume crime (e.g. house burglaries or theft of, and from, a vehicle).

This should be practical skills-based training ideally against defined role profiles and occupational standards. Competence should also be assessed at the conclusion of the program.

Minimum requirements include:

- evidence integrity (e.g. chain of custody and contamination risks);
- forensic photography/imaging;
- · scene processing;
- recognising trace evidence;
- principles of fingerprint science, latent fingerprint visualisation and fingerprint collection;
- physical evidence collection, preservation, storage, and transportation;
- principles of DNA and DNA collection;
- quality control processes;
- health and safety issues; and
- relevant jurisdictional policies and legislation.

This should be supported, initially, by practical familiarity gained through working with experienced personnel at a variety of crime scenes.

2 EQUIPMENT AND CONSUMABLES

The list of equipment and consumables that can be used at a crime scene is extensive. With respect to minimum requirements the following items are very important at major scenes:

- Crime scene tape for marking scene boundaries;
- Tarps to protect evidence from the weather;
- A scene log for recording those entering and exiting the scene;
- Equipment for recording the scene;
- Measuring equipment (e.g. a tape measure) for taking measurements at the scene;
- Additional lighting such as flashlights to enhance visual inspection in less than optimal lighting conditions;
- Appropriate tools for taking notes about actions taken at the scene and items collected (ideally a computer or notebook);
- Clean and non-contaminated (ideally disposable) equipment for collecting items at the scene (e.g. tweezers);
- Packaging containers (e.g. paper bags, cardboard boxes and screw top plastic containers) for items collected at the scene. These containers should be new and clean;
- Permanent markers or bar codes for labelling the items collected; and
- Appropriate personal protective equipment (e.g. gloves and face masks) and disinfectant to protect the safety of the examiner and the integrity of the evidence.

Use of reagents such as those used for blood detection, presumptive testing and latent fingerprint detection and enhancement shall be accompanied by appropriate training, validation tests and controls. Consumables with a specified expiry date (shelf life) shall be monitored.

Purchase of new equipment such as light sources used at the scene shall be accompanied by appropriate training and validation/verification.

In all disciplines of forensic science new technologies and methodologies will emerge and the crime scene facility should stay current with the latest technology advancements. For example, digital information management systems will save time and resources if they are employed at the scene with all appropriate information being entered only once.

3 COLLECTION, ANALYSIS, INTERPRETATION & REPORTING

The protocols and procedures described in the following section are regarded as the minimum requirements for the processing of serious crimes (e.g. homicides).

For less complex crimes such as house burglaries, for example, some of these criteria may not be applicable. For example, under 'Controlling the Scene', establishment of scene boundaries, scene guards and scene logs are not usually applicable to burglary scenes. However, some form of scene assessment, examination, recording, collection and management shall be part of the processing of every scene.

3.1 SCENE ATTENDANCE

A crime scene should be attended promtly following the reporting of the incident. The scene should be secured as soon as possible (where practicle to do so; see section 3.3) and then attended by a person with appropriate training, skills and knowledge to process the scene.

3.2 INITIAL ASSESSMENT OF THE SCENE

To perform an initial assessment of the scene, the crime scene investigator (CSI) shall do the following:

3.2.1 Assess Scene Information

Discuss with the Officer in Charge (OIC) of the incident and the first officer(s) at the scene (or victim of volume crime):

- The circumstances of the incident;
- The identification of potential transient or temporary physical evidence or observations (e.g. weather conditions and street lighting) important to the OIC of the investigation;
- The existence of potential secondary scenes;
- How long the scene has been controlled and any information about access/interference with the scene prior to it being controlled;
- Has the offender already left the scene;
- Who has entered the scene;
- Path of entry/exit of those persons;
- What (if anything) has been moved/disturbed/removed;
- Review of actions taken to protect and secure the scene; and

3.2.2 Assess Occupational Health and Safety (OH&S) risks and take adequate safety precautions

This requires the CSI to carry out a risk assessment to:

- Assess what articles, persons, situations and areas of the scene could be dangerous or harmful to the CSI and others involved in processing the scene;
- Assess what protective clothing, equipment or actions need to be organised to ensure the safety of those involved in processing the scene; and
- Identify actions taken to mitigate the risks.

3.2.3 Conduct a preliminary visual/physical inspection and evaluation of the scene

The preliminary visual/physical inspecition and evaluation of the scene may be referred to as a 'walk through'. During a walk through:

- Where appropriate, follow the path of any previous entries by police to the scene;
- Identify possible points of entry and exit by the offender and the location of the incident/activity;
- Establish and use a different path to enter/exit the scene than one used by offender;
- Identify the area of the scene to be controlled;
- Identify the location of any physical or trace evidence and note the location for protection or collection at a later stage;
- Identify the type, quantity and relevance of any potential evidence; and
- Assess the need for any specialist assistance that may be required.

3.2.4 Take precautionary initial action to prevent loss of evidence by destruction or contamination

Ensure evidence is protected from destruction or contamination by external forces (e.g. human interference, weather and/or animals).

This may require:

- Appropriate protection of shoe/tire impressions and/or bloodstain patterns;
- Appropriate protection of clothing and trace evidence (e.g. biological stains and loose fibres and hairs) until time of examination/collection;
- Protection of weapon marks or cuts on clothing; and
- Other appropriate protections for any fragile evidence.

3.2.5 Plan a course of action to process the scene and the evidence it contains

Issues to consider include:

- Consideration of all the information which are readily available;
- Discussing with the OIC of the incident the most urgent tasks (and reasons for the urgency), recording any decisions in a (policy) log;
- Identifying the areas which require detailed examination (consider logistical requirements); and
- Where appropriate, using the 'outside-in' formula (working from the outer perimeter to the centre of the scene) to conduct the examination. The reasons for this include the prevention of contamination and destruction of evidence.

3.3 CONTROL OF THE SCENE

Control of the scene is achieved when the perimeter is secured, a single entry/exit point is managed and the only people in the scene are there under the direction of the person controlling the scene. Control of the scene may only apply to serious matters. To do this:

3.3.1 Establish control of the scene

The examiner shall establish the scene. This can be performed by collaborating with the police officer guarding the scene.

Confirm or establish the perimeter and ensure it is secure. It may be necessary to define the boundary and entry/exit point using crime scene tape or other similar material. The boundaries should enclose the furthest, immediate physical evidence connected with the crime scene.

Confirm or establish a guard at the point of entry to/exit from the crime scene and have the guard establish a log. Liaise with the guard in relation to those people who may be given access and those who should be prevented from entering the scene. Ensure the log has the following details of people entering the scene:

- Name/badge number/ID number;
- Rank/position;
- Reason for entry;
- Time of entry;
- Time of exit; and
- Contact details.

Any persons entering the scene shall first be permitted to do so by the examiner and then be escorted by a member of the CSI team. Any person entering the scene shall be advised that they:

- Shall stay within the delineated entry and exit paths to minimise the loss or contamination of evidence;
- May be required to provide reference samples (e.g. fingerprints and DNA) for elimination purposes; and
- May be required to give evidence (e.g., fingerprints and DNA sample) in any subsequent court proceedings because of their entry.

Ensure the guard/log keeper understands that if there is any doubt as to the right of entry of any person, he/she shall deny their entry until contact is made with the officer in charge of the scene.

3.3.2 Maintain control during examination

Ensure good communication with the police officer guarding the scene or maintain control yourself.

Ensure that the crime scene barriers/tape/borders are maintained or moved appropriately and that sufficient guards are in place at the barriers until you have completed processing the scene. Control of the scene may be handed over to another forensic specialist. This shall be recorded.

Liaise with the OIC of the investigation to ensure relief for the barrier guard is organised, if required.

3.3.3 Formal release of the scene

Release of the scene can be either:

- Release to the OIC of the investigation; or
- Release to the normal occupant (with approval from the OIC of the investigation).

Regardless of to whom a scene is released, accurate notes are required in relation to the date/time and identity of people involved in the release.

NOTE: While the release of the scene is part of the control process, the scene should not be released until all processes (e.g. examination, recording and collection) have been completed.

3.4 EXAMINATION OF THE SCENE

An examination of the crime scene requires the following:

3.4.1 Apply the principles defined in the 'Principle of Exchange' and Interpretation phase

The 'Principle of Exchange' is based on the notion that 'When any two objects come into contact, there is always a transfer of material from each object onto the other'. This condition is known as the 'Principle of Exchange' (Locard, 1928).

Applying this principle to the commission of a crime allows a CSI the expectation of locating something left behind by the offender at the crime scene. It also follows that the offender has taken part of the crime scene with them on departure. This material may be clearly visible, may only be seen under enhancement or it may be microscopic and not visible.

Issues to consider include:

- Any physical or trace evidence that will assist in the elimination of a person(s) of interest or in establishing the identity of an offender(s);
- Corroboration of statements of parties involved (e.g. victim or witnesses);
- Relationship of evidence and relevant observations;
- Sequence of events of the crime including its location and point of entry by an offender(s);
- Scenario development including consideration of alternatives; and
- Interpretation of, for example, bloodstains and impression evidence (e.g. shoe impressions) to reconstruct events at the scene, to locate other traces. Full interpretation of bloodstains and impression evidence should be conducted at a later stage, by trained forensic experts.

3.4.2 Assess and decide on an investigation strategy

The search process should be structured to ensure that every area is examined in a methodical, logical and thorough manner (refer to the planned course of action) and that if any interruptions occur, the search can continue effectively. During this stage, in the case of homicides, arrangements should be made for the removal and custody of the body.

Consideration shall be given to situations where:

- The search technique involves enhancement. There are a range of techniques that can be generally grouped as optical (e.g. the use of special light sources), physical (e.g. the use of powder dusting techniques to visualise fingerprints) or chemical (e.g. the use of luminol to visualise bloodstains). It is important that the least destructive methods are used first, before proceeding to destructive methods when necessary. It is important also to consider the effects of enhancement techniques with respect of subsequent DNA traces recovery and analysis; and
- The search technique involves collection. Recording shall occur in between these two investigative steps.

The examination plan should have identified those areas within the scene that require searching, as well as possible enhancement techniques that may need to be applied. Their application will form part of the overall scene examination.

The search of the scene will be determined by factors such as:

- Scene type (exterior or interior scene);
- Presence of a body (for death/homicide cases);
- The size of the area;
- Type of terrain;
- Size of the evidence;
- Need to move objects to access others; and
- Exceptional circumstances (e.g. unsafe building/flooding).

The searching process should be multi-dimensional in its approach and include, for example, an examination of the floors, walls and ceilings (internal) and ground, trees, roof and other structures (external).

3.4.3 Examine objects and identify their potential as evidence

This includes consideration of:

- Foreign items found at scenes which may be linked to an individual and be useful in proving identity of witnesses or suspects;
- Items used in the commission of the offence (e.g. weapons) and their condition;
- Damage or signs of interference that may be useful in identifying a point of forced entry or exit, or other event/series of events. These may also be useful in identifying the sequence of events;
- Location and/or condition of an object may be more significant than its nature/ description (e.g. furniture which has been upset during the offence); and
- Relationships of objects may be important (e.g. similar shoe marks indicating they were made by one
 individual and may also indicate a walking trail leading to a particular location, even if it is advisable that the
 determination of the unique source of shoemarks will be carried on at a latter stage by trained forensic
 experts).

3.4.4 Repeat the search and examination process for secondary scenes

In relation to any crime scene, secondary scenes shall also be considered. These can include:

- Offender;
- Victim;
- Vehicles used to depart the scene; and/or
- Objects or tools taken away from the scene.

Secondary scenes may have trace evidence present, which can provide a link back to the main scene. Therefore, it is incumbent on the CSI to obtain all relevant information in relation to the scene, including secondary scenes. Communication with the investigating officer is vital.

3.5 RECORDING THE SCENE

It is essential that an accurate and detailed record of the scene is established and maintained for immediate and future reference. Recording of a crime scene is achieved through a combination of:

3.5.1 Notes

Detailed and comprehensive notes of the crime scene should be taken at the time of examination and reflect the following:

- Time, date, place and weather;
- Details of actions taken at the scene(s) by the CSI;
- Any information known or suspected to be relevant to the incident;
- Details of persons at the scene prior to arrival and their actions at or within the scene including first respondent activity;
- All observations made at the scene (detailed scene description);
- Records of roles performed at the scene by assisting specialists;
- Description of all exhibits located and collected at the scene with accurate records as to where and in what condition they were located;
- Any exhibit transfer from the scene, including to whom and date;

- Any information uncovered at the scene that is passed on immediately to investigating officers; and
- Report of the incident and the scene protection used.

3.5.2 Photographic and video records

Photographs shall be taken of all items of significance which accurately record their location within the scene. They will be a vital part of the overall case record and can be supplemented by video recordings and/or 360 degree imaging or laser scanning.

The types of photographs that should be taken include:

- General shots (interior and/or exterior) that show the location of the scene in relation to identifiable landmarks;
 - Mid-range shots (interior and/or exterior) to record the positions of closely related items and the general layout and key parts of the scene;
- Close-up shots which often require scales to indicate the actual size of the items; and
- Technical photographs including where appropriate, macroscopic photography (e.g. fingermarks, edges or glass or paint and physical fits such as paper tears), scale photographs and photographs of chemical enhancements requiring the use of specialised filters and illumination techniques.

3.5.3 Sketch Plans

Sketch plans of the crime scene should enable the CSI to locate all evidence and objects of relevance and include:

- Layout of the scene and orientation of the scene to its surroundings;
- Identification of key elements (e.g. rooms, trees);
- Major objects (e.g. furniture);
- Specific item locations;
- Necessary measurements;
- Direction 'north' to be marked;
- · Legend; and
- Scale.

If automated technologies such as laser scanning is used, all of the appropriate controls and similar features of a sketch plan should be included (e.g., legend, scale, etc.).

3.6. EXHIBIT COLLECTION

During the collection stage the collection of reference samples should be considered, and this organised as appropriate.

The tasks of exhibit collection include:

3.6.1 Collect and package all exhibits in a manner that will prevent contamination

This can be achieved by:

- Collection of each item of evidence using clean (ideally unused disposable) equipment (e.g. gloves, tweezers, clear cellotape);
- Wearing appropriate PPE such as clean gloves, cap, shoe cover and face mask, with regular changes between collecting exhibits;

- Wearing a disposable overall/suit or clean working apparel in compliance with OH&S regulations (for serious/major crime scenes);
- Packaging each exhibit separately and in the appropriate packaging medium (rigid cardboard box, paper bag, sterile plastic container) to protect exhibits against contamination, damage and/or destruction;
- Sealing each packed exhibit in a manner that is evident if tampering or opening has occurred;
- Ensuring all packaging material is clean and new;
- Changing PPE between collecting reference samples from suspect and/or victim; and
- Ensuring no cross contamination between items collected from suspects and victims by packaging items collected from each individual separately; and
- Having protocols in place that after material has been recovered, packaged and sealed, it must only be reopened under controlled conditions and preferably not before laboratory examination.

3.6.2 Ensure appropriate labelling to identify exhibits

An item should be labelled with a unique identifier or barcode. The label may also include the following information:

- Time and date collected;
- Person collecting name and initials or signature;
- Description of the contents, including quantity and characteristics;
- Description of where it was collected; and
- A continuity label affixed that contains records of the chain of custody (e.g. all persons who take possession of the exhibit, including the person(s) collecting the exhibit) and the date. This may be in the form of an exhibits book or a printed proforma document.

If it is not appropriate to capture all the information listed above on the item label, the crime scene unit shall ensure this information is recorded in an alternative way (e.g. logbook, information management system) and be linked back to the item using the unque identifier/barcode.

3.6.3 Establish a record sheet of exhibits contemporaneously as collected

The list made at the time of collection will assist in the maintenance of continuity and in the preparation of subsequent case notes and reports or statements.

3.7 CASE MANAGEMENT

Management of a case requires the following:

3.7.1 Ensure continuity and security of exhibits, items and records

To ensure continuity and security:

- All collected items should have a record of the chain of custody this can be achieved by noting the movement in an exhibit book or on a form;
- All exhibits should be logged into the relevant management system (computer database orhard copy exhibit book);
- Case management folders/files should be commenced and all records attached to thefolder/file for a given case;
- All collected items should be securely stored when not being examined; and

• All movement of files and collected items should be accounted for and an entry made on the relevant database, movement slip or within the file.

3.7.2 Ensure examinations are conducted in the appropriate sequence

This shall apply to all crime scene examinations however this becomes more complex as more examination techniques are introduced. For example, any non-destructive examinations should be conducted prior to any destructive examinations.

3.7.3 Maintain liaison with the Officer in Charge of the case and other specialists

This generally applies to more serious matters and may include direct communication or the organisation of case conferences. These would involve all relevant personnel and be called as the need arises. They should be frequent to start with and less frequent as the case progresses. This is imperative to prevent any communication breakdown.

3.7.4 Prepare relevant statements, reports and other documentation

Interim reports may be required by detectives as to the progress of the examination. All efforts shall be directed to produce reports that are accurate, clear, objective and meet the requirements of the jurisdiction served.

Statements and reports should include the following key points:

- Case reference number;
- Time and date;
- Location;
- Purpose of the investigation
- The investigator/specialist responsible
- Description of the scene;
- Items identified and collected as evidence (including items not examined);
- Continuity of all evidence;
- Page numbering;
- Unique identification of the report on every page;
- Statement of any conclusions or opinions including uncertainty; and
- Signature of the author.

Appropriate peer review of statements and case files by other qualified and authorized personnel is essential.

3.7.5 Conduct Technical and Administrative Reviews of case files

On completion of all examinations, tests and the preparation of formal statements/reports, the entire case folder should undergo a Technical and Administrative Review by other qualified and authorized personnel.

4 PROCEDURES, PROTOCOLS AND VALIDATION

The crime scene unit shall have and follow documented procedures which are tracked and controlled. The documented procedures should be relevant to the crime scene investigation process. All procedures (published or developed in-house) used for crime scene investigation shall be validated to demonstrate that they are fit for intended purpose of use.

All procedures shall specify any use of reagents and controls (where they are used) and should be a step by step process sufficiently detailed to ensure uniformity and consistency.

5 QUALITY MANAGEMENT

Quality management helps ensure the validity and reliability of the work of the CSI. Quality steps should be built into each stage of investigation and not soley relied upon as an end stage process or check. Quality management should reflect continuous improvement.

Appropriate education and training, documented protocols and procedures, and reliable equipment and consumables are all part of the quality management process. Ideally, more established Crime Scene Units should seek accreditation and align to international standards (e.g. ISO/IEC 17020 or ISO/IEC 17025) and examiners should participate in proficiency tests or collaborative trials.

However, as a minimum, CSI shall have a check list of key actions which they monitor as they are processing the scene to assist in maintaining the integrity of the scene, the integrity of the items collected and evidence management (or chain of custody).

Specifically, the crime scene facility shall establish, follow and maintain a documented quality management system that is appropriate to crime scene investigation activities and is equivalent to, what is required by these minimum requirements.

The Crime Scene Unit shall document, maintain and follow a procedure regarding document retention that specifically addresses:

- Proficiency tests;
- Practitioner competence;
- Analytical results;
- Sample receipt
- Processing records;
- Sample retention;
- Corrective action;
- Audits;
- Training records;
- Continual professional development; and
- Court testimony monitoring.

The quality management program shall specify and document the responsibility, authority, and interrelation of all personnel who manage, perform or verify work affecting the quality of the crime scene investigation.

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