

SCOTTISH POLICE  
AUTHORITY

Meeting	Audit & Risk Committee
Date and Time	23 October 2014
Location	The Royal Scots Club, Douglas Room, 29-31 Abercromby Pl, Edinburgh EH3 6QE
Title of Paper	Forensic Service Controls Accreditation & Risk
Item Number	17
Presented By	Tom Nelson
Recommendation to Members	For Approval / For Consultation / For Noting
Appendix Attached:	No

### Forensic Services

Forensic Services forms part of the Scottish Police Authority (SPA) and provides forensic inspection and laboratory test services to Police Scotland and Crown Office Procurator Fiscal Service (COPFS). Forensic Services has approximately 490 staff across four Local Satellite Laboratories (LSL) at Aberdeen, Dundee, Edinburgh and the SCC, Gartcosh. High volume processing units (HVPU) in Dundee process volume crime DNA casework and CJ samples, and in the SCC, Gartcosh deliver serious crime casework. Other HVPU activities include Drugs and Fingerprints. In addition to the four laboratory sites there are twenty satellite scene examination offices throughout Scotland. We are comprised of Biology, Physical Sciences, Business Support and Scene Examination Functions, with a Quality section sitting within Business Support.

### Accreditation, Policies & Procedures within Forensic Services

The United Kingdom Accreditation Service (UKAS) is the sole accreditation body within the UK recognised by Government to assess against internationally recognised standards and organisations that provide forensic services. All four Forensic Services laboratories are accredited by UKAS to ISO 17025 - 'General requirements for the competence of testing and calibration laboratories' with the range of accredited tests documented on UKAS schedules. UKAS operate a policy of annual assessments, on a rolling four year programme.

Third party assessment by UKAS accreditation offers confidence that forensic activities are carried out impartially and competently. UKAS accreditation minimises the risk of inaccurate inspection or testing results, providing confidence to customers and stakeholders to show evaluation by an independent, third party accreditation body.

The Management System is formally documented by a **Quality Policy Manual** which identifies the general organisation, staff, responsibilities, range of facilities and scope of inspection and testing within Forensic Services, in line with the relevant ISO Standards. Supporting this policy are **Standard Operating Procedures** which comprise written Quality, Administrative, Technical, Training and Personnel procedures. In turn, SOPs are supported by controlled **Forms**

which include all records that will be generated by the Management System. Other **Controlled documents** include those generated outwith, but referred to within the Management System (e.g. instrument instruction manuals). These documents are uniquely numbered, controlled and available at the appropriate location.

Management System documents are drafted, reviewed and approved following defined workflows ensuring appropriate staff have authorised the use of the document within the Management System and is fit for purpose.

### **Compliance and Audit**

SPA Forensic Services conducts audits of its inspection and testing operations according to agreed audit schedules. Audits are carried out by internal, trained personnel who are, whenever possible or practicable, independent of the activity to be audited. Any corrective and preventive actions are managed through the SPA Forensic Services Corrective and Preventive Action (CAPA) process. In 2013/2014, SPA Forensic Services conducted approximately 86 audits across all Functional areas.

SPA Forensic Services recognises the importance of internal audit as a means of measuring Management System performance against planned criteria such as the Quality policy, Quality objectives and technical process requirements, and for identifying areas for improvement. Internal audits provide assurance that all areas of the Quality Management System comply with the ISO standards and UKAS requirements, that actual practice is as specified in documented procedures and that all corrective/preventive and improvement actions are carried out timeously and effectively.

### **Frequency of Review**

SPA Forensic Services conducts Management System review meetings of each Function on a quarterly basis, with the aim of reviewing activity to ensure that the Quality Management System continues to be effective and complies with the relevant ISO standards. SPA Forensic Services also holds a national Forensic Services Management System Review at least six monthly. Actions are documented on pro-forma with appropriate responsibilities and timescales defined, and progress monitored through the Forensic Services meeting structure.

Standard Operating Procedures and Management System documents are frequently reviewed and amended to ensure continuous improvement and fitness for purpose. Appropriate technical and management staff are responsible for conducting the periodic review of documents. Documents will be reviewed at least once in the four year UKAS review cycle, by a variety of means e.g. UKAS assessment, internal audit, periodic review, document change process etc.

### **Quality Control**

Forensic Services has an integrated Quality Control system to provide its customers with adequate confidence that Forensic Services' results satisfy all

appropriate quality requirements. Forensic Services achieves this through such things as:

- participation in inter-laboratory comparisons and proficiency tests
- the use of validated methods
- use of certified reference materials and/or internal quality controls
- repeat testing of retained samples
- ensuring appropriate training and competence of personnel
- controlling the environments of its laboratories
- calibration of measuring equipment
- internal audit
- external assessment
- instigation of Corrective and Preventive Action (CAPA)

If any of these measures generate findings which cast doubt on the integrity of a Forensic Services test result, Forensic Services will immediately deploy corrective and preventive actions and will inform the customer.

### **Assurance against malicious activity**

Forensic Services recognises the importance of ensuring that scientific evidence is not compromised through inappropriate handling of samples or test items. Procedures regarding handling of samples and test items highlight the measures that will be taken to ensure the integrity of every sample and test item. All SPA Forensic Services staff undergo vetting on employment to ensure they meet the defined vetting criteria. All inspection and testing activity is defined in Standard Operating Procedures to which staff are trained and assessed as competent to perform the activity. In some analyses, presumptive testing provides background information on the case and minimises the risk to malicious activity. Key steps in the testing process are documented within SOPs and independent checks inbuilt to the process to provide assurance. Where opinions and interpretations are involved in the reported result, two independent analyses are performed and collated for agreement and reporting. At the end of the testing process, forensic reports are reviewed, corroborated and authorised by independent, competent peers or management before issue to the customer. Repeat testing and case review procedures are in place to provide further assurance in the testing activity performed.

### **Workflow Management**

The National Forensic Science Gateway assesses submissions made by both Police Scotland and COPFS with support from Forensic Services. When assessing a case the Gateway will take into consideration the following:

- The circumstances of the case and evidence already available/collected.
- The potential forensic opportunities that may be available based upon necessity, proportionality and probability of forensic yield.
- The potential value of forensic evidence to support the sufficiency and/or corroboration of evidence in the case or as a persuasive argument.

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In all submissions to Forensic Services it should be documented what the purpose of the forensic submission is intended to prove or demonstrate within the wider circumstance of the case or event. The forensic scientist should determine the types of scientific analyses that are to be undertaken in the case in consultation with the SIO or PF as may be necessary.

Case allocation to scientific staff is undertaken by Team Managers based on staff/team workloads, competence of staff members and abstraction.

The Memorandum of Understanding – Provision of Forensic Services in Scotland outlines the requirements of Forensic Services, COPFS and Police Scotland to ensure appropriate provision of forensic services and to clearly outline the responsibilities of each in ensuring effective utilisation of these services within the criminal justice process in Scotland. Achievement against Key Performance Indicators (KPIs) is measured and reported in accordance with the defined governance structure.

### **Key Risks and their Management**

Forensic Services maintains Functional Risk Registers documenting perceived risks to the service on the SPA Risk Register template. The risk, the untreated probability and the associated impact, is documented, providing a numerical value. Control measures are recorded and a revised 'Current risk' score calculated. Actions taken are frequently reviewed with owners of the risk recorded clearly.

The Forensic Services Functional Risk Registers support a Forensic Services Risk Register with cross functional and high level risks carried forward to this document. This is reviewed at a Forensic Services Business Performance Meeting attended by Senior Management and chaired by the Director of Forensic Services and high level risks are raised to the SPA Risk Register for review at SPA Board level.

At the laboratory level, procedures are in place to ensure suitable separation in time and/or place to minimise the risk of contamination between samples whilst they are being retrieved, stored and/or examined. In certain areas designated PPE and equipment are provided which must only be used in their designated area and in these areas staff, equipment and paperwork movements will be kept to a minimum.

Access to laboratories is restricted to members of staff and authorised visitors only. In restricted areas, all visitors must be accompanied at all times and carry a visitors identification badge. The appropriate personal protective equipment must be worn.

Production stores are locked when unattended to prevent unauthorised entry. Individual offices, or buildings, are secured when the premises are unoccupied.

### **Assurance to Police Scotland and the SPA**

Forensic Services recognises that many factors determine the accuracy and reliability of inspections and tests being performed. The Management System is

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designed and implemented to ensure that these factors are properly controlled. Forensic Services testing is only carried out by either staff competent to do so or by trainees under the supervision of persons competent to carry out the particular inspection, test or procedure. Environmental conditions are controlled to ensure the validity of all its test results and where possible at Scene Examination inspections, to ensure a safe and adequate working environment for staff. Forensic Services uses appropriate and validated methods and procedures for its routine testing activities. *The methods used within Forensic Services are based on proven international or national standards as well as government, manufacturers, scientific papers and reputable publications.* Only authorised Forensic Services personnel operate significant equipment (i.e. equipment whose operation has a significant effect on an inspection or test result).

### **Forward Planning – Changes in Legislation**

Forensic Services ensures it is informed of changes to regulatory Standards and legislation by involvement and representation at appropriate discussion forums and meetings. These include but are not limited to those organised by UKAS, the Forensic Science Regulator, European Network of Forensic Science Institutes (ENFSI), Association of Forensic Service Providers (AFSP) and The Chartered Society of Forensic Sciences.

Forensic Services also engage with partners and stakeholders such as Police Scotland, COPFS and PIRC to ensure we are sighted on changes to legislation that may affect our inspection and testing services.