AUSTIN POLICE DEPARTMENT
FORENSIC SCIENCE DIVISION
STANDARD OPERATING PROCEDURES

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Appendix A - LIMS Codes

Definitions

Within the scope of this document, the following definitions will be used:

- **(ISO XXX):** Refers to criteria defined in the *International Standard ISO/IEC 17025, General requirements for the competence of testing and calibration laboratories,* Second edition 2005-05-15.
- **(ASCLD/LAB XXX):** Refers to criteria defined in the *ASCLD/LAB-International Supplemental Requirements for the Accreditation of Forensic Science Testing Laboratories, 2011 Edition.*
- **(QAS XXX):** Refers to criteria defined in the *Quality Assurance Standards for Forensic DNA Testing Laboratories, Effective September 1, 2011.*

1. SCOPE OF OPERATIONS

1.1. FORENSIC SCIENCE DIVISION OVERVIEW

The Forensic Science Division provides, within its ability, expert forensic laboratory services to the City of Austin and other law enforcement agencies, as requested. These services include crime scene investigation and documentation, the scientific examination and analysis of evidentiary material, expert testimony concerning the analysis of evidentiary material and interpretation of technical data and laboratory findings, and other related forensic services and activities. The Forensic Science Division is managed to provide efficient, effective, and quality support of the mission of the Austin Police Department (henceforth known as the Department).

1.2. HISTORY OF THE FORENSIC SCIENCE DIVISION

The Forensic Science Division was established in 1972. Since that time the Forensic Science Division has seen major changes in its structure, staff and mission. Initially, the Forensic Science Division began with a small number of people assigned to the Photo-Identification Section, Chemistry Lab and Evidence Room. Today, the Forensic Science Division consists of the Forensic Chemistry Section, DNA Section, Firearms and Toolmark Section, Multimedia Section, Crime Scene Section, Latent Print Section and Polygraph Section.

The Forensic Science Division is managed by and staffed with civilians. In 1996, the Forensic Captain position was civilianized as well as the supervisory position for the Identification Section. These key positions were civilianized through grant funding in an effort to enhance continuity and direction of the Forensic Science Division and to place more sworn officers in positions where they were needed.

In 1972, the Chemistry Lab was established with the hiring of one chemist who helped support the state regulated Breath Alcohol Testing Program and performed limited drug testing. In 1975, the lab increased its drug testing capability by hiring an additional drug chemist. In the mid-1980's, the Chemistry Lab began performing blood alcohol analysis in support of traffic investigations and DWI cases. By 1992, the lab grew to provide analysis of controlled substances and blood alcohol. The Clandestine Lab Response Team was created in 1990 and continues to operate today. This team of chemists and narcotics officers is responsible for dismantling volatile and highly dangerous methamphetamine labs. Today, the section is called the Forensic Chemistry Section to appropriately reflect the type of analysis actually performed.

The need to create a DNA testing capability was realized in October 1996. In 1998, implementation was begun to establish APD's DNA laboratory. In September of 2004 the DNA Section began performing DNA analysis. The section also participates in the Combined DNA Index System (CODIS), which is a federal database of DNA profiles.

The Firearm and Toolmark Section was created in 1984, and is responsible for matching fractured items to their source; comparing marks left at a scene with suspect tool; and comparing firearms-related evidence recovered at crime scenes. The Firearm and Toolmark analysts and IBIS Specialist test fire seized firearms and document the results for future reference. The section also manages the National Integrated Ballistic Information Network

(NIBIN) system, which is an image-based database and national computer network designed and supported by the ATF.

The Multimedia Section provides technical support in areas of photography, film processing, audio and video production, duplication; surveillance photography and videography; computer-generated composite drawings; preparation of photographic line-ups and administrative photography.

The Polygraph Section was established in 1976 and provides polygraph testing in support of APD's investigative mission. Polygraph examination support is also provided to other federal, state and local law enforcement agencies on an as-needed basis. The Polygraph Examiner also supports APD's Recruiting Office by overseeing and conducting pre-employment polygraph examinations.

The Identification Section is the oldest operating forensic science discipline within the Austin Police Department, originating before WWII. In 1977 the Identification section was combined with the Photo Lab. As advancements in fingerprint technology increased, the need to separate the Identification Section developed. In 2002 the Identification Section was separated into the Crime Scene Section and Latent Print Section. The Crime Scene Section is responsible for crime scene investigation to include recognition, documentation, collection, preservation and processing of evidence to include latent print processing in the laboratory.

The Latent Print Section is responsible for the examination, comparison, analysis and identification of latent print evidence, as well as the operations and maintenance of the local APFIS system.

1.3. FORENSIC SCIENCE DIVISION MISSION STATEMENT

The purpose of the Forensic Science Division is to provide timely, independent, accurate and objective scientific and investigative support to the criminal justice system through forensic analysis.

1.4. FORENSIC SCIENCE DIVISION GOALS AND OBJECTIVES

The Forensic Science Division is responsible for providing the Austin Police Department, Citizens of Austin and numerous other customers, a high level of forensic science services and support based on quality, timeliness, accuracy, and professional standards (QAS 3.1.1.1). It is the responsibility of the laboratory to carry out testing activities in such a way as to meet the requirements set forth by the American Society of Crime Lab Directors/Laboratory Accreditation Board (ASCLD/LAB) and satisfy the needs of the customer. (ISO 4.1.2)

The objectives of the Forensic Science Division are supported by the following major goals:

- Provide crime scene support;
- Provide photographic, video and audio support;
- Provide forensic examinations and analyses on evidentiary items;
- Provide polygraph support;

- Provide timely and accurate reports;
- Improve quality assurance;
- Enhance scientific capabilities; and
- Improve cost effectiveness.

1.5 CODE OF ETHICS

Ethics Relating to Examination and Analysis

- All analyses are to be approached with an open mind with minimum anticipation as to what the results might be.
- Proper scientific **method** requires reliable materials. Standards or reagents of questionable quality are to be avoided.
- Tests may be conducted on evidential material, which may be inadequate in some way, but these inadequacies must be kept in mind when forming conclusions.
- Examinations and analyses are to be accurate and complete.
- All individuals will keep abreast of new techniques, but unproven techniques must be validated prior to use in casework. **Methods**, which have been proved inaccurate or unreliable, must not be used.
- Wherever appropriate, controls and standards are to be utilized to conduct examinations and analyses.

Ethics Relating to Opinions and Conclusions

- Conclusions formed and opinions rendered are to be based on generally accepted tests and **procedures**.
- Opinions are to be stated so as to be clear in their meaning. Wording should not be such that inferences are drawn which are invalid.

Ethics Relating to Court Testimony

- It is imperative that personnel be aware of personal limitations in training or experience. Personnel must avoid any intentional misrepresentation of training, experience, or areas of expertise.
- Personnel must issue technically correct statements in all written or oral reports, testimony and public addresses. The interpretation of results must avoid any ambiguous or inaccurate claim.
- It is essential for personnel to clearly differentiate between scientific results and expert opinion.
- Personnel are responsible for the interpretation of data from the scientific results of data from evidence under examination. In this regard, one must present results in an impartial manner. It is unethical to withhold information because it is unfavorable to the side by whom one has been retained.
- If a question is put to the expert with the requirement that they should give a simple answer (i.e. yes or no), but it requires qualification to avoid misleading the judge or jury, the expert should so state before answering the question.
- Conclusions must be based on the information drawn from the evidence itself, not on extraneous information from other sources. Opinions stated in a scientific report must have a similar basis.
- Sound scientific **procedure** requires that an individual neither form conclusions nor render opinions which are beyond his/her area of expertise. This is not intended to

discourage exploration into new areas, but statements of opinions are to be based on adequate knowledge.

Ethics Training

- Training within each accredited discipline of the Forensic Science Division will encompass an ethics module. (ASCLD/LAB 5.2.1.3)
- Management will have in place a system in which all employees annually review the ASCLD/LAB "Guiding Principles of Professional Responsibility for Crime Laboratories and Forensic Scientists" (ASCLD/LAB 4.2.2.1). This review will be recorded (ASCLD/LAB 4.2.2.2).

Records

- **Record** of annual ASCLD/LAB Guiding Principles review

1.6 ORGANIZATION AND STAFFING (QAS 3.1.1.2 ,ISO 5.2.3)

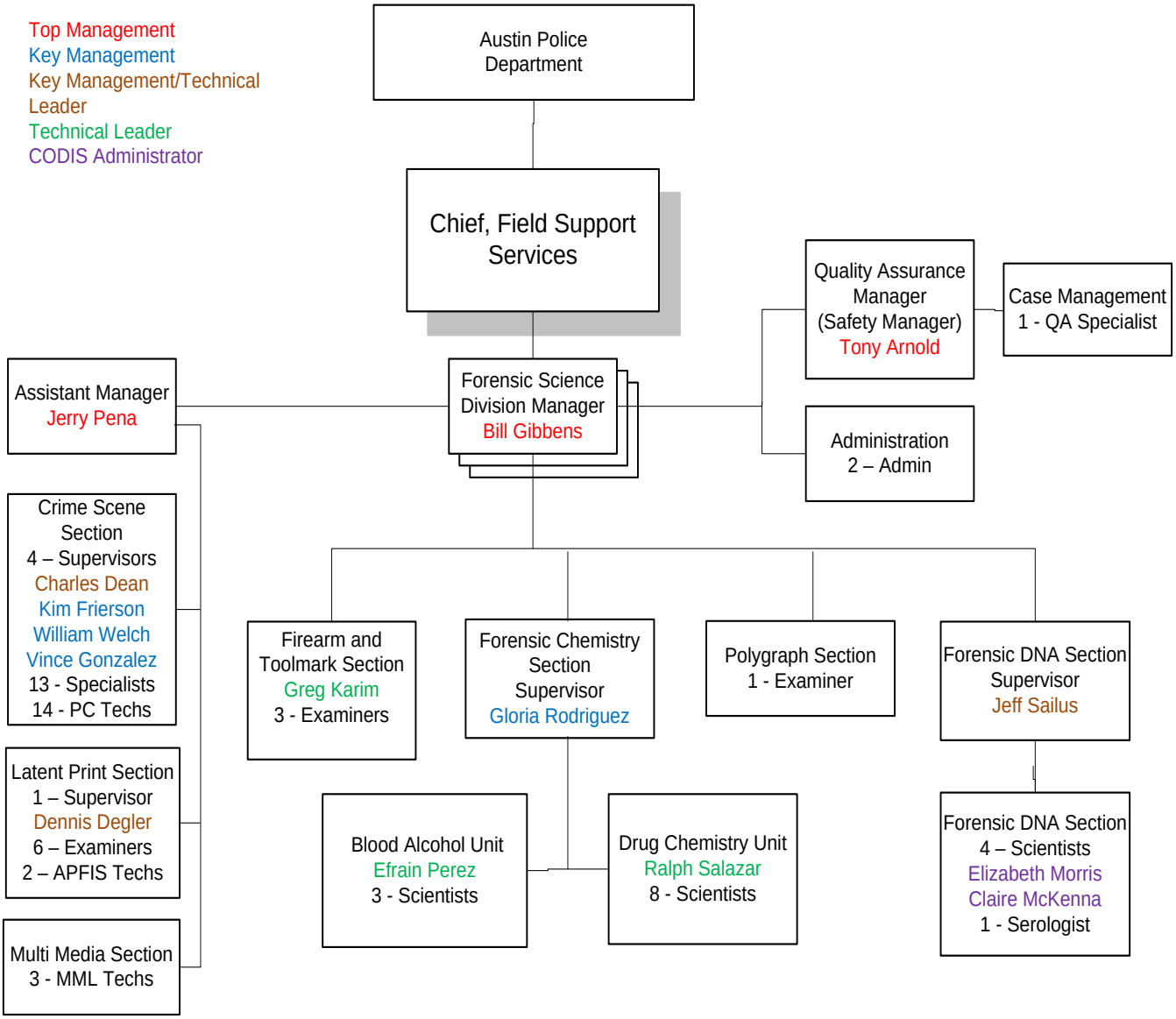
The Austin Police Department undergoes periodic evaluation to ensure it is organized in such a way that it meets the changing needs of the Austin community. This evaluation may result in changes, over time, to redistribute resources to optimally address contemporary issues and conditions. Redistribution of personnel and resources may occur as a result of any Department reorganization. The APD Human Resources Division will maintain personnel allocation information.

The Austin Police Department's organizational structure is depicted on an organizational chart that is reviewed, updated and distributed as a Special Order to all personnel as needed. The organizational chart depicts the formal lines of authority and communication within the Department.

1.7 DIVISION LOCATIONS AND CONTACT NUMBERS

Forensic Science Laboratory – Main Number	512-974-5150 Fax: 512- 974-6640 Forensic.Division@austintexas.gov
Forensic Laboratory Manager's Office	512-974-5118 Fax: 512- 974-6640
Assistant Manager's Office	512-974-5131 Fax: 512-974-6661
Quality Assurance Program Manager	512-974-5103 Fax: 512-974-6640
Quality Assurance Specialist/Laboratory Evidence Intake	512-974-4258 Fax: 512-974-6640
Laboratory Information Management System Administrators	LIMS@austintexas.gov
Forensic Chemistry Section Supervisor's Office	512-974-5107 Fax: 512-974-6648 Chemlab@austintexas.gov
DNA Section Supervisor's Office	512-974-5108 Fax: 512-974-6694 DNA.Lab@austintexas.gov
Latent Print Supervisor's Office	512-974-5780 Fax: 512-974-6640 Latent.Unit@austintexas.gov
Polygraph Section Office	512-974-5111 Fax: 512-974-6673 Polygraph@austintexas.gov
Crime Scene Office	512-974-5119 Fax: 512-974-6640 Crimescene@austintexas.gov
Multi Media Section Office	512-974-5114 Fax: 512-974-6658 APDPhotolab@austintexas.gov
Southside Vehicle Processing Facility – 8200 South Congress	512-280-6791
Mailing Address: PO Box 689001 Austin, Texas 78768-9001	Physical Address: 812 Springdale Road Austin, Texas 78702

1.8 FORENSIC SCIENCE DIVISION ORGANIZATION CHART (ASCLD/LAB 4.1.5.f, ISO 4.1.5.e)



1.9 SECTION DESCRIPTIONS AND RESPONSIBILITIES

Each section is responsible for specific functions that support the mission of both the Forensic Science Division and the Austin Police Department. The following is an overview of the responsibilities specific to each section (discipline). The specific job duties and qualifications are found in the City of Austin job descriptions. (ISO 5.2.4, ISO 5.2.3)

- **The Forensic Chemistry Section is responsible for:**
  - General Chemistry
  - Quantitative Analysis
  - Clandestine Lab Analysis
  - Toxicology (blood alcohol only)

- **The Firearm and Toolmark Section is responsible for:**
  - The analysis of firearm related evidence;
  - The analysis of Toolmark related evidence;
  - Gunshot Residue Distance Determination;
  - Trajectory analysis;
  - Conducting field investigation of firearms-related scenes; and
  - Acquisition of firearm exhibits and searching correlation results entered into NIBIN.
  - Categories of testing include: Firearms and Toolmarks.

- **The DNA Section is responsible for:**
  - The recovery, examination, and typing of biological evidence in criminal cases;
  - Attempting to identify the source of questioned samples and conducting DNA comparisons of evidence samples to reference standards; and
  - Conducting field investigation of DNA related scenes.
  - Participation in the CODIS program.
  - Categories of testing include: Body Fluid Identification and Nuclear DNA.

- **The Crime Scene Section is responsible for:**
  - Documenting, collecting, preserving and transporting evidence from crime scenes, to include individuals, autopsies, traffic and industrial accidents and internal investigations;
  - Processing evidence items submitted to the Crime Scene laboratory, to include – friction ridge detail, photographic detail and DNA collection; and
  - Performing bloodstain pattern analysis.
  - Categories of testing include: Crime Scene Investigation and Bloodstain pattern Analysis, and Latent Print Processing.

- **The Latent Print Section is responsible for:**
  - Receiving, evaluating, and storage of latent fingerprint evidence;
  - Analyzing latent prints for suitability and comparing suitable prints to a reference standard;
  - Entering and searching unknown latent prints in Federal IAFIS, State AFIS and Local APFIS systems.

- Categories of testing include: Latent Print Comparison.

- **The Multimedia Section is responsible for:**
  - Operating still cameras to provide photographic support for studio portraits, administrative events, and cadet graduation ceremonies
  - Monitoring and maintaining all photographic processes for quality control
  - Performing digital photographic processing and video/audio editing
  - Preparing media and photographic images for court

- **The Polygraph Section is responsible for:**
  - Conducting the pre-employment and criminal polygraph examinations for the Department and outside agencies.

- **The Administrative Section is responsible for:**
  - General administrative functions required for the Forensic Science Division, including customer service and reception, maintaining files system, completing payroll and purchasing functions.

1.10 HOURS OF OPERATION

The Forensic Science Division works hours that are consistent with the customers we support to include the detectives and the court systems. The following are guidelines for the operational hours of the Forensic Science Division.

- **Normal Operating Hours**
  Administrative and Laboratory Staff
  - The normal operating hours for the Forensic Science Division are Monday through Friday from 7:30 am to 4:00 pm (with a 30 minute lunch) or 7:30am to 4:30pm with a one hour lunch, except recognized city holidays.
  - Employees can request a deviation from standard hours by submitting a memo to the supervisor. After the supervisor considered the requests and identifies it as being in the best interest of the Division, it will be forwarded to Top Management. Top Management will determine if the accommodation will be supported.

- 24 Hour Services
  - The Crime Scene Section is a 24-hour operation. The section supervisors are responsible for scheduling to ensure that proper coverage is maintained.

- Essential and Non-Essential Designation
  - Severe Weather
    - The following personnel are classified as essential personnel in the event of a weather day being initiated by the City of Austin:
      - Crime Scene Specialists
      - Crime Scene Supervisors
      - Property Crime Technicians
    - All other staff is considered non-essential personnel.

- Disaster Response
  - All personnel are considered essential in the event of a man-made or natural disaster.
  - All personnel will be available for response by pager or direct contact.

1.11 MANUALS

The following manuals contain policies and **procedures** for the functions within the Forensic Science Division (ISO 4.2.5).

- The City of Austin Personnel Policy Manual contains the official personnel policies that govern all City of Austin employees.
- The Austin Police Department Policy Manual is the official document of the Austin Police Department; containing top tier documents for the agency, including organizational structure, polices and doctrines, rules, regulations, **procedures** and work **methods**.
- The Forensic Science Division Standard Operating **Procedures** (SOP) is considered the quality manual for the Forensic Science Division, containing **policy** and quality processes (ISO 4.2.2).
- The Standard Operating **Procedures** (SOP) for each section contain administrative policies and **procedures** specific to the section.
- Each section's Technical Manual contains discipline specific technical protocols.
- Each section's Training Manual contains discipline specific training **program**s for employees.
- The Safety **Program** contains safety, chemical hygiene, chemical/biological exposure plans, and environmental compliance policies.
- The Physical Evidence Handbook contains information about laboratory testing and services, evidence collection and handling, and policies regarding customer service requests.
- It is not possible to anticipate every situation that may arise or to prescribe a specific course of action for every case; therefore, the examiner must exercise good judgment based on experience and common sense, especially when processing evidence. In some cases, the manual offers guidelines for analysis that must be tempered with the experience of the examiner. However, any portion of a technical procedure may not be modified for use in casework without prior approval of the Technical Leader.

1.12 CUSTOMER SERVICE (ISO 4.2.2.b, ISO 4.2.4)

Definitions (ASCLD/LAB 4.4.1 Note 4):

- **Request** - the process utilized by a customer when seeking analysis by the laboratory.
- **Tender** – the laboratory's response to the customer regarding their request.
- **Contract** – the agreement between the laboratory and the customer.

Practice

- Forensic Science Division personnel will strive to meet customer requirements by performing efficient and practical casework examinations that do not sacrifice quality by conducting a reasonable number of examinations in a realistic time frame.
- Cases and/or examinations will be prioritized in a manner that best serves the overall criminal justice community.
- Within the constraint of scientific validity, fiscal responsibility, and high integrity, the Forensic Science Division will cooperate with customers or their representatives in clarifying their work request (ISO 4.7.1)

- The laboratory will not support requests that impose undue pressures on laboratory personnel from either internal or external sources. (ISO 4.1.5.b)
- It is the **policy** of the Forensic Science Division that individuals not employed by the department will not perform casework testing in our facilities due to the risk of compromise to our quality system, accreditation, and other components of operations including other casework testing and evidence integrity.
- In order to more efficiently serve our customers, analysts conducting casework examinations will have the discretion of selecting the appropriate **method** of analysis available to analysts conducting examinations in that discipline. All currently employed analysis **methods**, those incorporated into the appropriate discipline manuals, have been accepted by management as being valid and thus have been authorized for use in casework (ISO 5.4.2).
- The Forensic Science Division strives to deliver services so as to avoid involvement in any activities that would diminish confidence in its competence, impartiality, judgment or operational integrity from customers and the public-at-large. (ISO 4.1.5.d)
- For Forensic Science Division services and policies refer to the Physical Evidence Handbook (ISO 4.4.1).
- The request for analysis is accepted when the request is entered in the LIMS (ISO 4.4.1.a)
  - The analyst is authorized to modify the request, by selecting the items to be tested having the most probative value
  - If changes or adjustments are made to the request (either prior to processing or once work has commenced), the customer will be notified and documentation of the notification will be maintained (ISO 4.4.4, ISO 4.4.5). This may be via email, phone or personal conversation, but must be documented in the case record. Indicating in the report that the item was not tested will satisfy the customer notification requirement
  - Pertinent discussions with the customer concerning the request will be documented in the case record (ISO 4.4.2).
  - If no analysis will be performed, the assignment will be administratively closed and documentation will be made in the case record of the customer notification.
  - LIMS requests for analysis made by customers will not be deleted.

- **Request for Reanalysis**
  - Any reanalysis of evidence previously examined by the APD laboratory must be approved in advance by the Section Supervisor.
  - Any reanalysis of evidence previously examined by an outside laboratory must be approved in advance by the Laboratory Director.
  - Reanalysis approval must be documented in the case record.

1.13 MANAGEMENT SYSTEM (QAS 4.1.1)

The Forensic Science Division has established a management system to monitor, maintain, and continuously improve the quality of forensic services provided to the criminal justice community. (ISO 4.2.1, ISO 4.10, ISO 4.2.2.c) The management system encompasses the administrative, quality and technical functions of the Forensic Science Division.

QUALITY POLICY STATEMENT (ISO 4.2.2)

The Management System of the Forensic Science Division has as its focus:

- Commitment to good professional practice and to the quality of its testing in servicing its customers (ISO 4.2.2.a)
- The development, coordination, and maintenance of reliable, uniform, and scientifically sound laboratory **procedures**;
- The enhancement of formal **methods** of quality assurance for compliance with accreditation standards;
- The periodic audits of all areas of the Forensic Science Division to ensure that policies and **procedures** are being followed and to monitor routine operation and performance;
- The coordination, maintenance, and management of the requirements for participation in external **programs** and databases such as Combined DNA Index System (CODIS), Automated Fingerprint Identification System (AFIS), and National Integrated Ballistics Information Network (NIBIN); and
- The coordination of training for personnel to carry out the provisions of the quality system.
- The promotion and preservation of the integrity and validity of services provided by the Forensic Science Division.
- The application of these objectives to the work carried out in the laboratory, the field, and off-site processing facilities (ISO 4.1.3).

Management Structure

- The Forensic Science Division is under the guidance of the Forensic Division Manager, who performs the duties of Laboratory Director. (ASCLD/LAB 4.1.4.1)
- Top Management (ASCLD/LAB 4.1.8) consists of the Laboratory Director, Assistant Division Manager and Quality Assurance Manager.
- Key Management (ASCLD/LAB 4.1.8) consists of the Top Management and the Section Supervisors.

Key Management Continuity (ISO 4.1.5.j)

- When a member of Key Management will be unavailable to perform their duties, they will **designate** a member to assume their responsibilities. In the absence of a member of Key Management, the Laboratory Director has the authority to designate acting personnel. Otherwise, the following will apply:
  - If the Laboratory Director is unable to **designate** an acting Laboratory Director in his/her absence, the Assistant Manager will be the acting Laboratory Director until further notice.

- If the Assistant Manager is unable to **designate** an acting Assistant Manager in his/her absence, the Crime Scene Section Supervisor assigned to the day shift will be the acting Assistant Manager until further notice.
- If the Laboratory Director and Assistant Manager are unable to **designate** an acting Laboratory Director in their absence, the Quality Assurance Manager will be the acting Laboratory Director until further notice.
- If the Laboratory Director, Assistant Manager and Quality Assurance Manager are unable to **designate** an acting Laboratory Director in their absence, the Section Supervisor on duty having the lowest employee number will be the acting Laboratory Director until further notice.
- If the Quality Assurance Manager is unable to **designate** an acting Quality Assurance Manager in his/her absence, the Laboratory Director will be the acting Quality Assurance Manager until further notice.
- If a Section Supervisor is unable to **designate** an acting Supervisor in his/her absence, the section employee on duty having the lowest employee number will be the acting Section Supervisor until further notice. In the Crime Scene Section the on-call Supervisor will be the acting Supervisor when no on duty Supervisor is available.
- If a Technical Leader is unable to fulfill the duties of that position, the Laboratory Director will **appoint** a qualified interim technical leader, if available.

Authority/Responsibility for the Management System
The laboratory management system needs the complete support and participation of all personnel. The following section outlines the responsibilities of management and other Forensic Science Division personnel in implementing the management system. (ISO 4.1.4 and/or 4.1.5.f)

- **All Forensic Science Division Personnel** are responsible for (ISO 4.1.5.a; ISO 4.1.5.k):
  - Familiarizing themselves with the quality documentation and implementation of the policies and procedures in their work (ISO 4.2.2.d)
  - Ensuring that **procedures** are performed in a careful and responsible manner in accordance with authorized **procedures**
  - Identifying any problems or questionable results, and documenting and making recommendations for improvements to the system
  - Ensuring completeness of laboratory **record**s and essential documentation;
  - Making recommendations for improvements to the training manual
  - Complying with ISO 17025 and ASCLD/LAB-International Supplemental requirements. (ISO 4.2.6, ISO 4.2.2.e)
  - Communicating conditions or situations in the Forensic Science Division that may lead to non-compliance with **policy** or **procedure**
  - Performing all duties of his or her position as prescribed by the City of Austin Human Resources Department
  - Treating all information from any agency, customer, or fellow employee with the confidentiality required (ISO 4.1.5c)

- **The Laboratory Director** reports to the Chief of Field Support Services and is responsible for (ASCLD/LAB 4.1.4.1):
  - The overall management, direction and control of the Forensic Science Division;

- Administrative and technical direction of the Forensic Science Division;
- Developing, implementing, and enforcing policies and decisions; (ASCLD/LAB 4.1.4.1.1)
- Developing and managing the Forensic Science Division budget; (ASCLD/LAB 4.1.5 note)
- Managing grant projects;
- Personnel issues including recruitment, selection, hiring, disciplinary action and **appointments**;
- Acting as the section supervisor of the Firearms Section;
- Reviewing and recommending updates of job requirements and descriptions;
- Supporting and promoting the management system and ensuring that the policies and objectives are documented, communicated to, understood, and implemented by personnel;
- Suspending testing in a section of the Forensic Science Division until resolution of technical problems relative to a **procedure**, instrument, or quality issue that may affect the outcome of testing;
- Granting authorization for casework examinations;
- Insuring that effective communication is present within the Forensic Science Division;
- Representing the Forensic Science Division when necessary at public and governmental meetings;
- Approving and authorizing Forensic Science Division governing documents;
- Designating the technical leaders (ASCLD/LAB 4.1.5.H);
- Ensuring the integrity of the management system is maintained when changes are planned and implemented (ISO 4.2.7).

- **The Assistant Manager** reports to the Laboratory Director and is responsible for:
  - Acting as the section supervisor of the Multimedia Section;
  - Acting as manager of the Crime Scene and Latent Print Sections;
  - Developing and managing budgets of the sections within his/her control;
  - Supporting and promoting the management system;
  - Communicating the management system and related policies to all employees within his/ her control;
  - Ensuring that personnel are adequately trained and qualified for assigned duties, to include continuing education opportunities;
  - Implementing and documenting Quality Issue Notifications;
  - Participating in the resolution of suspended operations and technical problems.
  - Cooperating with investigations regarding conditions in the Forensic Science Division that may lead to non-compliance with **policy** or **procedure**, and ensuring appropriate preventive action or corrective actions are taken;
  - Representing the Forensic Science Division when necessary at public and governmental meetings.
  - Ensuring the integrity of the management system is maintained when changes are planned and implemented (ISO 4.2.7).

- **The Quality Assurance Manager** reports to the Laboratory Director and is responsible for (ASCLD/LAB 4.1.5.i)(ISO 4.1.5i)
  - The overall quality of the Forensic Science Division;
  - Coordinating with management regarding the development, implementation, maintenance, and improvement of the management system;
  - Acting as the health and safety manager and ensuring that a health and safety **program** is implemented and followed; (ASCLD/LAB 4.1.7)
  - Coordinating audits of laboratories; selecting, training, and evaluating internal auditors; evaluating results of audits
  - Coordinating **programs** and **procedures** with requirements for accreditation;
  - Advising management on issues relating to laboratory quality and good laboratory practice
  - Providing reports to the Laboratory Director on quality assurance activities;
  - Coordinating, assisting and reviewing training materials, testing **procedures**, and competency testing;
  - Managing controlled documents and quality assurance records
  - Managing the proficiency testing **program**;
  - Investigating conditions or situations in the Forensic Science Division that may lead to non-compliance with **policy** or **procedure**, and ensuring appropriate preventive action and self-improvement;
  - Monitoring Forensic Science Division practices to verify continuing compliance with policies and **procedures**
  - Maintaining a list of technical leaders;
  - Ensuring the integrity of the management system is maintained when changes are planned and implemented (ISO 4.2.7).

- **The Section Supervisors** are responsible for:
  - Providing supervision and guidance to section personnel on policy, **methods and procedures** (ISO 4.1.5.g)
  - Supporting and promoting the management system;
  - Assisting management with personnel issues including recruitment, selection, hiring, evaluations and disciplinary action;
  - Ensuring that personnel have access to continuing education opportunities;
  - Maintaining training documentation of supervised personnel
  - Recommending analysts for supervised or independent casework

- **Technical Leaders** (required in each discipline) are responsible for (ISO 4.1.5h, ASCLD/LAB 4.1.5.h.1):
  - The technical operations of the section; (ISO 4.1.5.h)
  - Supporting and promoting the management system;
  - Maintaining a list of critical supplies and equipment;
  - Evaluating and maintaining a list of approved vendors for critical consumables, supplies and services (ISO 4.6.4)
  - Suspending testing in their respective discipline until resolution of technical problems with a **procedure**, instrument, or quality control that may affect the outcome of testing;
  - Keeps lab Supervisor informed on technical issues

- Maintaining proficiency in their discipline
- Resolving technical problems
- Oversees validation of new instrumentation and **methods**
- Oversees maintenance of equipment and keeps proper **records**
- Oversees the QA/QC of reagents, kits, and instrumentation
- The Technical Manual and Training Manual updates
- Overseeing the training **program,** including evaluation of analysts hired with previous experience.
- Recommending analysts for supervised or independent casework

- **Analysts** are responsible for (ISO 4.1.5d):
  - Participating in and promoting the management system;
  - Carrying out the duties of the profession with integrity, with attention to accuracy, and in an unbiased manner;
  - Conducting quality examinations;
  - Issuing quality reports;
  - Accurately representing qualifications, evidence, opinions and conclusions when testifying;
  - Making recommendations for improvements to **procedures** used in the examination of forensic evidence;
  - Advising management on issues relating to laboratory quality and good laboratory practice.

- **Trainers** are responsible for:
  - Providing quality training;
  - Documenting trainee competence through written and/or oral examinations, practical exercises, and/or mentor training;
  - Reporting the progress of a trainee to the Technical Leader as applicable and making recommendations for independent casework;
  - Making recommendations for improvements to the training manual.

- **Trainees** are responsible for:
  - Keeping accurate training logs of all training activities;
  - Developing habits which maintain high integrity and adhere to scientific standards;
  - Reporting to the trainer on all issues related to training;
  - Adhering to a training outline;
  - Successfully completing all training modules;
  - Making recommendations for improvements to the training manual.

Records

- Laboratory Organizational Chart

1.14 PLANNING AND DEVELOPMENT

Scope
The Forensic Science Division will compile statistical data to plan the needs of the Forensic Science Division in order to meet the demands of the future.

Responsibility
It is the responsibility of the Forensic Science Division to compile data on a regular basis to manage the needs of the Forensic Science Division in order to provide quality and timely service. Through the information collected from the data, management can plan for future needs.

- The **Laboratory Director** is responsible for:
  - Compiling performance statistics;
  - Preparing annual reports; and
  - Preparing and administering budgets.

- **Key Management** is responsible for:
  - Providing reports to the Laboratory Director, as requested
  - Reviewing section and personnel caseloads; and
  - Monitoring and administering section budget.

Practices

- **Strategic Planning Process**
  - The Forensic Science Division will, during the annual review, examine the policies and **procedures** to provide an environment for continuous improvement, and efficient and effective operation.
  - Statistical reports serve as an assessment of the accomplishments and performance of the sections toward Forensic Science Division goals.
  - The Forensic Science Division also participates in the APD Strategic Plan by providing performance data.

- **Technology Planning Process**
  - The Forensic Science Division develops a budget plan for technology development and/or instrument replacement.
  - Supervisors and managers may be consulted in the development of the plan. Additional information includes equipment inventory and quality control **records**.

- **Fiscal Planning Process**
  - The City of Austin, in consultation with Forensic Science Division key management, develops an annual budget.
  - Operating budgets and current budget information can be obtained from the APD Comptrollers website on the City web, to assess fiscal responsibility and availability of funds in the current fiscal year for each section.

- Purchasing should be approved by key management and processed in accordance with the APD Policy Manual.

- **Staff Meetings** (ISO 4.1.6)
  - At least quarterly, section supervisors will conduct staff meetings with their section personnel. Staff meetings will be documented using the Meeting Form (FSD 016). The topics discussed should include issues that impact the section, current/future scientific practices, quality improvements, budget, safety updates and topics discussed at the management staff meetings. Record of the meetings will be maintained in the section.
  - At least quarterly, Top Management will conduct staff meetings with section supervisors. Staff meetings will be documented using the Meeting Form (FSD 016). The topics discussed should include issues that impact the Forensic Science Division, quality improvement initiatives/updates, pending quality action plans, training, budget and safety updates. Meeting minutes from the management meetings will be posted on the front page of LIMS for employee review.

Records

- Strategic Plan
- Monthly/Annual Reports
- Budget Forecasts
- Meeting Form

1.15 PURCHASING SERVICES AND SUPPLIES (ISO 4.6)

Scope
To establish Forensic Science Division **policy** and **procedures** for the selection and purchase of supplies and services that may have a direct impact on the quality of testing. Purchases should be approved by key management and processed in accordance with applicable City of Austin purchasing policies.

Responsibilities

- **Supervisors** are responsible for:
  - Determining the specifications for those supplies and services which may have a direct impact on the quality of tests
  - Identifying the requirements for the storage of reagents and laboratory consumables (ISO 4.6.1)
  - Submitting a Purchase Request Form for the needed supplies, including specifications as needed (ISO 4.6.3 w/note)

- **Technical Leaders** are responsible for:
  - Identifying critical consumables, supplies and services that affect the quality of testing (ISO 4.6.4)
  - Evaluating vendors who provide critical consumables, supplies and services
  - Maintain the evaluations of critical vendors (ISO 4.6.4)
  - Maintaining a list of approved suppliers of critical consumables, supplies and services that affect the quality of testing. (ISO 4.6.4)

- **Section Personnel** are responsible for:
  - Notifying the section supervisor when supplies or materials need to be ordered
  - Verifying compliance of purchases with specifications or requirements before they can be used in tests and maintaining such **records** (ISO 4.6.2).

- **Administrative staff** is responsible for:
  - Acquiring proper approvals;
  - Processing the purchases as per City of Austin **policy**;
  - Receiving the purchased supplies;
  - Submitting the required paperwork to the purchasing office;
  - Maintaining **records** of purchases of supplies and services.

Quality Assurance Practices

- The supervisors will determine the specifications for those supplies and services which may have a direct impact on the quality of tests.
- Orders will be placed in accordance with City of Austin purchasing policies.
- Orders will be inspected by the requesting laboratory section to verify that the items received meet the specifications of the items requested. (ISO 4.6.2)
- Critical Services:
  - Suppliers of critical calibration services will be ISO 17025 accredited for the service provided (ISO 5.6.2.1).

- The technical leader will review the calibration certificate to determine if the equipment is acceptable for use in casework. They will document this review on the certificate with the date and their initials or signature.

Purchasing Process
The following are the guidelines for acquiring equipment, services and supplies utilizing the City of Austin purchase order system.

Responsibilities

- Purchase requests are utilized to acquire equipment, services and supplies to support the operations.
- Purchasing for the Forensic Science Division will be conducted under the guidelines as prescribed by the City purchasing office.

Procedures

- Supervisors, except in Crime Scene, will manage their budget and determine purchasing needs. The Crime Scene Section budget is managed by the Assistant Division Manager.
- Upon identifying the need for purchase, the supervisor or Assistant Manager will select a vendor from the approved vendor list, if applicable, prepare a Purchase Request Form (PRF) and route the form to the Administrative Section. If the purchase requires bids, the supervisor will work with the Purchasing office to provide specifications and bid out purchases. Once the bid process is complete, the supervisor will participate in the selection of a vendor and recommend the purchase.
- The purchasing supervisor or Assistant Manager will retain a copy of all Purchase Request Forms until the items orders are received and accepted.
- The Administrative Section will obtain appropriate approvals according to the approval limits as set forth on the Purchase Request Form.
- The Purchase Request Form will be forwarded to the APD Purchasing office and/or purchased within the Forensic Science Division via credit card.
- Upon receipt, the Administrative Section will attach the packing slip to the materials received. The section representative will inspect the order to determine if the items received meet the specifications. If the order is correct, the representative will date and initial the packing slip to document the acceptance of the items. The signed/dated packing slip will be returned to the Administrative Section.
- The Administrative Section will document receipt of the order, and notify APD purchasing to pay the vendor, when applicable.
- If an issue is experienced with any materials or supplies that prevent use, mark the order “Do not use” and notify the administrative section of the problem so that a remedy can be identified.
- The Administrative Section will monitor the progress of the purchase requests.
- Office Supplies
  - Office supplies are maintained by the Administrative Section in the supply room.
  - Forensic Science Division employees can remove items from the supply room.
  - The administrative staff will monitor the supply inventory and order as necessary to replenish the inventory.

  - Special orders should be forwarded to the administrative staff for purchasing.
  - If an urgent need arises and the administrative staff is not available, the section supervisor may make arrangements to complete the order.

- Bulk Supplies
  - Requests for bulk lab supplies stored in the bulk supply storage room can be made by a section via the Supply Request Form (FSD 025) to the Administration Section.

Records

- Purchase Request Form
- List of Approved Suppliers
- Supply Request Form (FSD 025)

1.16 MANAGEMENT SYSTEM REVIEW

Scope

Top Management will periodically conduct a review of the management system to ensure continuing suitability and effectiveness in providing quality service while introducing necessary changes or improvements (ISO 4.2.3).

Responsibility

- The **Laboratory Director** is responsible for:
  - Ensuring that the Management System Review Report has been completed
  - Performing a review of the Management System Review Report and associated Laboratory Management System Surveys
  - Issuing action items for findings or conditions which require correction/improvement

- The **Quality Assurance Manager** is responsible for:
  - Facilitating the review process of the management system
  - Ensuring that recommended corrective actions and/or preventive actions have been implemented and evaluated
  - Maintaining reports and supporting documentation
  - Reviewing subjects such as documents, **programs**, structure, surveys, and staffing that may impact the management system.
  - Objectively completing the annual laboratory management system survey
  - Responding to action items concerning laboratory issues identified in the management review

Practice

- **Frequency**
  - The management system review will occur annually; generally during June or July (ASCLD/LAB 4.15.1.1). However, it is recognized that some review activities may occur throughout the year.

- **Process**
  - Throughout the year monthly activity reports will be reviewed by the Laboratory Director to identify trends regarding work load and performance. These observations will be documented.
  - A written report which will summarize the Management System Review will be completed at the conclusion of the review.

- **Purpose**
  - The appropriate **records**, reports, budgets, and activity information will be identified for review.
  - The management system review will cover, as appropriate, the following areas and identify areas for improvement (ISO 4.15.1):
    - Adequacy and completeness of the quality policy statement (ISO 4.2.2)
    - Adequacy and completeness of the policies, **procedures** and deviations to meet the objectives of the laboratory.
    - The annual review of Forensic Science Division documents on the Annual Controlled Document Review Form (FSD 026)
    - Workload and Forensic Science Division information (e.g., turn-around time, staffing, equipment, facility, outsource, subcontracts)
    - Managerial and supervisory reports (including budgets) pertaining to the laboratory, and observations (e.g., trends, strengths, weaknesses, needs)
    - Outcome of internal audit activities and identity of areas of improvement for consideration
    - Accreditation, inspection, and/or audit reports prepared by external bodies and identity of areas of improvement for consideration (e.g., significant changes)
    - Results of proficiency tests, testimony monitoring and other quality assurance activities
    - Corrective and preventive actions related to the Forensic Science Division and identity of areas of improvement for consideration (e.g., trends, strengths, weaknesses)
    - Review of recommendations, customer surveys, customer complaints, customer feedback (e.g., trends, strengths, weaknesses)
    - Other relevant factors that have impacted the management system (e.g., quality control activities, resources and staff training)
  - From the review, areas for improvement will be identified and documented (ISO 4.15.2).

Records

- Management Review Report
- Annual Laboratory Management System Survey
- Monthly Activity Reports
- Any findings, responses, or target issues identified in the report that became action items will be documented as supplemental reports. Any follow-up documentation will also be associated with the supplemental reports. The form of the supplemental documentation may vary according to the type of action necessary.

1.17 EQUIPMENT AND SUPPLY INVENTORY

Scope
The Forensic Science Division is equipped with numerous pieces of equipment and supplies. A **method** of tracking the inventory has been established.

Responsibility
It is the responsibility of each section to keep an inventory of all capital equipment housed in their section.

Practices

- **Equipment Inventory**
  - An inventory database is housed in the Laboratory Information Management System (LIMS).
  - Upon receiving an item that is determined to be a capital item or one that impacts quality, it is the responsibility of the administrative section to ensure that the item is documented in the inventory database.
  - Each item of equipment and its software used for testing will be tracked by a unique serial number, LIMS identification number, and/or city fixed asset number (ISO 5.5.4)
  - Items to be entered into the database are:
    - Capital items as **defined** by the City of Austin **policy**;
    - Equipment or software purchased with grant funds;
    - Equipment or software that impacts quality; and
    - Equipment or software that must be maintained calibrated or certified.
  - It is the responsibility of the supervisor, or designee, to notify the LIMS Administrator to inactivate any items from the database that are retired from operation.

- **Supplies**
  It is the responsibility of the supervisor, or designee, to ensure that a sufficient quantity of supplies is available for section employees to perform their duties.

- **Loan of Equipment and Supplies**
  - Equipment may not be loaned to anyone for use outside the Forensic Science Division without the approval of the section supervisor responsible for that particular piece of equipment.
  - Each section will keep a **record** of items checked out of their section to persons outside the Forensic Science Division on the Equipment Checkout Log (FSD 012).
  - Each piece of equipment to be loaned out should be inspected upon return.
  - If a piece of equipment is returned damaged, a memo will be routed to the responsible section or agency supervisor who borrowed the equipment and the Laboratory Director.
  - An estimate on repair will be obtained and a decision on responsibility will be made so that the equipment repairs can be made.

2 FACILITY DESIGN AND SECURITY

2.1 DIVISION PHYSICAL PLANT/SPACE AND DESIGN

Scope
In order for the Forensic Science Division to fulfill its mission and achieve its goals and objectives, adequate and appropriate space should be allocated for each activity and/or function. (ISO 5.3)

Responsibility
- **Key Management** is responsible for:
  - Providing a safe and functional work environment with adequate space to support all the work activities of the employees. Facilities must be adequate so that evidence within the Forensic Science Division is protected from contamination, tampering or theft;
  - Assessing the space design needs of all current and future functions/activities;
  - Recommending and approving design and space modifications.
  - Maintaining facility in accordance with prudent laboratory and safety practices; (ISO 5.3.5)
  - Recommending facility improvements.

Practices
The following criteria will be used to determine the adequacy of existing or new workspace or laboratory designs (ASCLD/LAB 5.3.1 note):
- Each employee should have enough working space to efficiently accomplish assigned duties.
- Prevention of cross-contamination (ISO 5.3.3)
- All employee and general laboratory working areas should have sufficient drawers, cabinets, shelves, or other storage space for proper storage and handling of individual and general laboratory supplies, equipment, and tools necessary to carry out assigned duties.
- Adequate space should be available to employees for writing reports and other official communications.
- The Forensic Science Division must have space d**esignated** for the safekeeping of official **records** and reports as well as space for reference material, books, and other documents necessary for carrying out the functions of the Forensic Science Division.
- Sufficient space should be available for each instrument (with its accessories stored near the instrument) to facilitate its proper use and operation.
- Space will be maintained for evidence storage in a secured area within each laboratory discipline. Each analyst will have available a secured storage area for in-process storage of evidence material.
- Proper and sufficient space must be provided for bulk storage of volatile, flammable, explosive, or otherwise hazardous materials.
- The physical design of the section laboratories should permit the efficient flow of evidence from the time of its acceptance until its proper disposal.

- The relative locations of functional areas should facilitate the use of equipment and instruments.
- All laboratory working areas must have adequate and proper lighting to enable personnel to perform their assigned duties safely and efficiently. (ISO 5.3.1)
- All laboratories must be equipped with adequate and proper plumbing and wiring that complies with existing safety codes, and which is available and accessible to carry out assigned tasks.
- All laboratories should have proper general ventilation, with fume hoods available to remove toxic and noxious fumes, and with any other ventilation necessary to maintain the health and safety of the laboratory personnel.
- There should be adequate heating, cooling, and humidity control in all facilities.
- Exits should be clearly marked with signage.

Operations

- Key management will ensure that the Forensic Science Division is in good operating condition through daily observations and/or audits and inspections
- Key management will coordinate space and design needs with top management.
- As necessary Key Management will document a needs assessment
- Recommendations concerning physical laboratory improvements of space and/or design must be submitted to Top Management for consideration

Records

- Floor plan of the Forensic Science Building

2.2 DIVISION SECURITY

Scope
One of the most critical areas of concern is security and integrity of entrusted physical evidence. The Forensic Science Division must be able to assure limited accessibility to laboratory areas and assure access by **unauthorized** personnel is in a supervised manner. Security is designed to protect employees and visitors, and ensures that no one deliberately or inadvertently alters evidence, **records**, instruments, or reagents. (ISO 5.3.4, QAS 6.1, QAS 6.1.1).

Definitions:
- **General Access** – Access to corridors and exterior doors of the division buildings. This excludes the operational areas of the laboratory.
- **Operational Area** – Any area where evidence may be stored or processed.

Responsibilities
- The **Laboratory Director** is responsible for Forensic Science Division Level Access to include:
  - Approving access to Division and Departmental computer systems;
  - Issuing, collecting, and maintaining **records** of accountability of keys, key cards, and/or combination codes;
  - Changing keys, combinations, or access if security has been breached or when deemed necessary; and
  - Coordination of security clearances and **procedures** with building maintenance.

- **Section Supervisors** are responsible for section level access to include:
  - Issuing and collecting keys and/or combination codes maintained within the section
  - Maintaining a log of keys and/or combination codes issued to personnel within their section
  - Changing keys, combinations, or access as needed

- **Employees** are responsible for:
  - Maintaining key cards, keys and combinations in a secure manner;
  - Maintaining evidence entrusted to their custody in a secure manner; and
  - Reporting **unauthorized** activity and breeches of security to key management.

Practices
- **Physical Plant**
  - The sections of the Forensic Science Division is designed and equipped to ensure proper safekeeping of physical evidence and **records**.
  - All exterior access and egress points to each section must have properly functioning locks. (ASCLD/LAB 5.3.4.1.b)
  - Internal areas requiring limited or controlled access must have properly functioning locks. (ASCLD/LAB 5.3.4.1.c)
  - Door alarms, motion detectors, and cameras may be used to appropriately monitor and ensure intrusion detection. (ASCLD/LAB 5.3.4.1.e)

- Laboratory facility entrances may be monitored by building personnel via closed circuit television. However, the laboratory is staffed 24/7. (ASCLD/LAB 5.3.4.1.e).
- The **designated** evidence storage areas should be constructed so that **unauthorized** entry is prevented.
- Doors to the section areas must be kept locked when unoccupied.

- **Access control** (ISO 5.3.4)
  - The Laboratory Director is responsible for issuing keys and access to Forensic Science Division level areas (ASCLD/LAB 5.3.4.1.d). Section Supervisors are responsible for issuing keys and access to section level areas.
  - A review of access and issued keys, including division and section access, will be documented as part of the annual audit.
  - When a person leaves employment with the Forensic Science Division, their assigned keys will be collected and/or invalidated. It is the responsibility of Key Management to coordinate these changes. Top management may require that all combinations and locks be changed.
  - Whenever keys are lost or misplaced, documentation will be maintained by the issuer of the keys of the action taken to prevent **unauthorized** access to the affected areas.

- Access to the Laboratory Information Management System (LIMS) and Local Automated Palmprint/Fingerprint Identification System (APFIS) must be authorized by the Laboratory Director.
  - The LIMS administrators will issue passwords to LIMS (ISO 4.13.1.4).
  - The APFIS administrators will issue passwords to APFIS (ASCLD/LAB 5.8.4.6)

- Access to the Local Automated Plamprint/Fingerprint Identification System (APFIS)
  - Acess to LIMS must be authorized by the Laboratory Director.
  - The LIMS administrators will issue passwords to LIMS (ISO 4.13.1.4).

- **Evidence Storage Areas** (ASCLD/LAB 5.3.4.1.f and ASCLD/LAB 5.8.4.2)
  - Top Management will ensure that the **authorized** bulk and in-process evidence storage areas have been identified and that access is controlled.
  - The section manuals will **designate** and define the storage areas within the sections.
  - The **designated** evidence storage areas must be constructed to prohibit **unauthorized** entry.
  - Unescorted access to the evidence storage areas will be restricted to section employees.
  - The bulk evidence storage areas will be locked when the operational areas of the section are unattended. (ASCLD/LAB 5.8.4.1)
  - Custody of evidence will be documented, at a minimum, by maintaining a chain of custody of the evidence. (ASCLD/LAB 5.8.1.1)
  - All evidence will be protected from deleterious change. (ASCLD/LAB 5.8.4.1)
  - Access to in-process evidence storage areas (drawers, cabinets, lockers, etc.) within the disciplines not secured by an integral door will be maintained by the section supervisors using key logs.

- If a key is misplaced or unaccounted for, key management will determine the course of action which may include replacement of the locks or duplication of the keys. The course of action will be documented on the Key Tracking Log (FSD 020).

- **Drying Rooms**
  - The Crime Scene and Chemistry Sections maintain secured storage areas used for drying evidence. Refer to the section manuals for specific **procedures**.

- **Reference and Standard Collections Security**
  - The Controlled substance reference materials will be maintained in **designated** locked locations within the Forensic Chemistry Section.
  - Unescorted access to the firearms reference collection is restricted to the section employees.

- **Facility Personnel Access** (ASCLD/LAB 5.3.4.1.a)
  - Only Forensic Science Division personnel (including interns) will have unescorted, general access to the Forensic Science Divisions facilities.
  - Within the Forensic Science Building, only Top Management and personnel (including interns) assigned to a section will have unescorted access to the operational areas within that section. Unescorted access to the external evidence processing facilities is limited to those persons authorized for entry. This authorization is defined in this document for each external facility.
  - A visitor log (FSD 010) will be maintained for the Forensic Science Building and all external facilities listed below.
  - All visitors except for maintenance and janitorial staff will sign the visitor's log prior to entry.
  - Non law enforcement personnel will be issued a visitor's badge and must display this badge when in the building.
  - Department or other law enforcement personnel must display credentials.
  - Once a visitor on official business signs in, they will be allowed access to the secured corridor and given directions on where to go.

- **Maintenance, Janitorial Staff and Facility Contractors**
  - The maintenance and janitorial staff are not required to sign the visitor's log.
  - The maintenance staff is permitted unescorted access to the corridors. Unescorted access to operational areas, excluding evidence storage areas, is only permitted with prior approval of the section supervisor or top management. However, the section supervisor or top management must ensure the integrity of all evidence.
  - Janitorial staff is permitted access to the operational areas only in the presence of section personnel.
  - Maintenance sub-contractors/other City of Austin staff (e.g., electricians, plumbers) should be accompanied by building maintenance personnel. Access to operational areas is only permitted in the presence of section personnel.

- **Facility Tours**
  - All tours must be approved in advance by the Laboratory Director.
  - When possible, prior notice will be given to section supervisors.
  - The group must be escorted by at least one Forensic Science Division employee.
  - Members of the group are not permitted to stray from the group unescorted.

- **Video/Photography**
  - Visitor requests for taking video and/or photographs of the operational areas of the facility must be approved in advance by the Laboratory Director.

- **External Facilities**
  The Forensic Science Division maintains control of various external facilities.

  - **South Congress Vehicle Processing Facility Security**
    a) The facility located at 8200 S. Congress Ave. is a secured, restricted-access facility for the temporary storage and processing of vehicles and other large items of evidence.
    b) The building security is under the control of the Crime Scene Section and the building is secured via an intrusion alarm system that is monitored by an alarm contractor.
    c) The facility is equipped with an audible alarm, interior motion detectors, and entry door sensors.
    d) Access to the facility is gained using the key located in each Crime Scene vehicle in combination with the assigned personal alarm code.
    e) Personal alarm codes are maintained by the Crime Scene section supervisors.
    f) Approved access is **defined** as personnel who have been issued alarm codes.
    g) A printout documenting alarm activation/deactivation activity is received monthly. This documentation is maintained within the Crime Scene section.

  - **Springdale Vehicle Processing Facility Security**
    a) The facility located at 812 Springdale Road is a secured, restricted access facility for the temporary storage and processing of vehicles.
    b) The facility is card-accessed only to personnel approved by the Laboratory Director.

  - **Hazardous Storage Buildings**
    a) The facility located at 812 Springdale Road is a secured, restricted access facility for the temporary storage of hazardous materials and plant material.
    b) The building security is under the control of the Forensic Chemistry Section. The buildings are secured via door sensors, invasion strobe light and siren and are monitored by an alarm contractor.
    c) Access to the facility is gained using the key located in the Chemistry section in combination with the assigned personal alarm code.
    d) Personal alarm codes are maintained by the Chemistry Supervisor.
    e) Approved access is **defined** as personnel who have been issued an alarm code.

e) A **record** of alarm activity provided by the alarm company is maintained within the Chemistry section.

Records

- Access/Key Control Logs
- Written section security policies
- Visitor Logs
- Alarm Reports

3 QUALITY ASSURANCE

3.1 PROFICIENCY TESTING

Scope
Proficiency testing provides a means of continuing self-evaluation in forensic science services. The nature of proficiency testing is that employees analyze and interpret data with the expectation that their results will be consistent with the manufacturer's or predetermined expected results. The performance of each proficiency test must accommodate the needs for sample integrity and evaluation of the entire analysis process through technical review. The proficiency testing program will comply with the ASCLD/LAB Proficiency review Program (ASCLD/LAB 5.9.3.2).

Responsibilities

- The **Laboratory Director** is responsible for ensuring that a documented proficiency testing **program** exists for all employees performing analysis work (ASCLD/LAB 5.9.3, ISO 5.9.1.b, QAS 3.1.1.11).

- The **Quality Assurance Manager** is responsible for:
  - Direction and scope of proficiency testing, including assignment, procurement and distribution;
  - Ensuring that external proficiency tests are from approved test providers if available
  - Ensuring the validity of internal and external proficiency tests from non-approved providers
  - Overseeing the resolution of discrepancies
  - Acting as the point of contact for test providers
  - Forwarding the proficiency test results report form to the provider on or before the due date
  - Ensure that all Class I and II nonconformances are reported in the next Annual Accreditation Audit Report following the nonconformance
  - Notify the ASCLD/LAB Quality Manager in writing, with a copy to the appropriate ASCLD/LAB proficiency review committee chair, immediately of failure to comply with any external proficiency testing requirement
  - Inform ASCLD/LAB prior to resuming analysis in a discipline or sub-discipline that the laboratory voluntarily suspended as part of a corrective action plan or that the laboratory had discontinued for other reasons
  - Evaluating the need for additional system-wide training, instrumentation, **methods** and **procedures** based on proficiency test results

- The **Technical Leaders** are responsible for:
  - Constructing proficiency tests for internal use

- The **Section Supervisors** are responsible for:
  - Distributing proficiency tests to the assigned employees
  - Ensuring that each proficiency test is independently completed and subjected to the same type of reviews as casework

- Ensuring that the appropriate documentation of external proficiency testing is completed and forwarded to Quality Assurance Manager on or before the due date
- Ensuring that appropriate corrective action is completed, as necessary
- Ensuring that technical and administrative reviewers are documented
- Ensuring that proficiency test evaluations are reviewed with the participants
- Maintaining the appropriate proficiency test **records** for the Section

- **Forensic Analysts**, individually or as a team (when casework uses a team approach), are responsible for:
  - Successful completion of proficiency tests as assigned.
  - Completing and documenting the results without knowledge of other analysts' test results unless contingent upon further testing by other team members
  - Restricting discussions regarding the proficiency test
  - Submitting completed tests to the Quality Assurance Manager on or before the established due date.

- **Reviewers** are responsible for:
  - Providing a thorough review of the proficiency test file and results
  - Documenting comments and/or results of the review

Practices

- **Frequency of Testing**
  - The laboratory will participate annually in, and successfully complete, at least one external proficiency test from an approved test provider, if available, for each discipline in which the Forensic Science Division provides casework services (ASCLD/LAB 5.9.3.4).
  - Each analyst or technical support personnel engaged in testing activities is expected to complete a proficiency test according to the following:
    a) Successfully complete an annual proficiency test in each discipline for which they conduct examinations (ASCLD/LAB 5.9.3.3).Successful completion is **defined** as either obtaining the correct response (satisfactory rating) or completing the corrective action pursuant to Forensic Science Division **policy** and/or directives from an ASCLD/LAB Proficiency Review Committee.
    b) Each DNA analyst and technical support personnel engaged in DNA testing activities is required to successfully complete two external proficiency tests annually according to the FBI DNA Quality Assurance Document guidelines to the full extent in which they participate in casework (ASCLD/LAB 5.9.3.3.1, QAS 13.1, QAS 13.2)
    c) Successfully complete proficiency testing at least once during each five year accreditation cycle, in each category of testing appearing on the Forensic Science Division's Scope of Accreditation, in which the individual performs testing. A documented **schedule** for proficiency testing must exist and be followed (ASCLD/LAB 5.9.3.3.2).

- **External tests**
  - **Procurement and distribution**
    a) The nature of the external test is that the results are returned to the provider for evaluation or compilation as part of a summary report.
    b) External proficiency tests will be purchased from an ASCLD/LAB approved test provider whenever possible. Other external test providers may be used in disciplines for which there are no approved test providers.
    c) Any external provider may be used for proficiency tests beyond those required to be performed by the Forensic Science Division.
    d) The Quality Assurance Manager will enter the test information in LIMS, initiate the Proficiency Review Form (FSD 002), lock the cases within LIMS, and forward the materials to the appropriate section for distribution by the supervisor.
  - **Analysis**
    a) The employee will examine the test samples as if they were from routine casework except where additional information is required. Authorized **procedures** will be used (ASCLD/LAB 5.9.3.1).
    b) Verifications are not required on proficiency testing.
    c) Upon completion of the test, the employee will sign the report in LIMS signifying analysis is complete (no further changes are allowed unless detected in the review process).
    d) In the event that several analysts participate as a team in the analysis of the same proficiency test, the analysts may be instructed to submit a single proficiency file that includes summary documentation of the role of each analyst in the analysis of the test materials. Each person will do their part independently.
    e) The employee will forward the Proficiency Review Form (FSD 002) and data sheets (and file if hard copy) to the Quality Assurance Manager.
  - **Technical and Administrative Reviews**
    a) Once all employees have completed the test the Quality Assurance Manager will unlock the cases and return the proficiency test documents to the Supervisor for review.
    b) The supervisor will ensure that all proficiency tests undergo a technical and administrative review.
    c) The technical and administrative review must be performed and documented according to the criteria established in the discipline. The reviews must be performed in such a manner as to preserve the integrity and purpose of the proficiency test.
    d) Once the technical and administrative reviews are complete and documented, the technical reviewer will complete the T*echnical Reviewer* portion of the Proficiency Review Forms (FSD 002) and forward them to the Supervisor for evaluation.
    e) The Supervisor will review the data sheets and proficiency review form for completeness and reviewer's comments. The test results may be compared with other test results within the discipline as they are received.
    f) If there is sufficient time before the provider's due date to investigate and correct inconsistent results, they may be corrected, at Supervisor discretion, by the test taker before submission to the provider.

g) The Supervisor will submit the data sheets and Proficiency Review Forms (FSD 002) to the Quality Assurance Manager in advance of the due date established by the test provider.

- **Submission to the test provider**
  a) The Quality Assurance Manager will submit the test results to the test provider on or before the due date.
  b) Results that are not returned to an external test provider by the provider due date are evaluated as an internal test.
- **Evaluation**
  a) The Proficiency Provider Summary Report will be acquired by the Quality Assurance Manager and forwarded to the section supervisor along with the Proficiency Review Forms (FSD 002). These items are provided to the evaluator.
  b) The evaluator will complete the *Evaluation* portion of the Proficiency Review Form (FSD 002), identifying any nonconformance within the test.
  c) If the evaluation indicates nonconforming work, the process described in the *Preventive and Corrective Action* chapter of this document will be followed.
- **Test completion and archiving**
  a) The proficiency documents will be returned to the section supervisor or designee for analyst's signature
  b) The completed Proficiency Review Forms (FSD 002) will be submitted to the Quality Assurance Manager for review and signature
  c) The test records and completed Proficiency Review Forms (FSD 002) are maintained by the section supervisor

- **Internal Tests**
  - **Process**
    a) A section will operate, as needed, an internal proficiency **program** designed to supplement the external proficiency **program**.
    b) The proficiency test and applicable instructions will be constructed by the technical leader from the category of testing being tested. If a proficiency test is required for the technical leader, the section supervisor will make arrangements for the construction of an alternate test for the technical leader.
    c) The nature of the internal test is that the results are not submitted to an outside vendor for evaluation. Evaluations are performed within the section administering the test.
    d) The employee will examine the test samples as if they were from routine casework except where additional information is required. Authorized **procedures** will be used (ASCLD/LAB 5.9.3.1).
    e) The supervisor will ensure that all proficiency tests undergo a technical and administrative review
    f) The technical and administrative review must be performed and documented according to the criteria established in the discipline. The reviews must be performed in such a manner as to preserve the integrity and purpose of the proficiency test.
    g) If the evaluation indicates nonconforming work, the process described in the *Preventive and Corrective Action* chapter of this document will be followed.

h) The completed Proficiency Review Forms (FSD 002) are submitted to the Quality Assurance Manager for signature.
i) The test records and completed Proficiency Review Forms (FSD 002) are maintained by the section supervisor

Documentation

- The section supervisor or designee will maintain the original proficiency test data file and materials to include (ASCLD/LAB 5.9.3.5):
  - Test set identifier
  - How samples were obtained or created
  - Identity of the person taking the test
  - Date of analysis and completion
  - Originals or copies of all data and notes supporting the conclusions
  - Results
  - Any discrepancies noted
  - An indication that performance has been reviewed and feedback provided to the analyst
  - Details of corrective actions, when necessary
- The completed Proficiency Review Forms (FSD 002) will be maintained in the employee's audit notebook.
- A permanent **record** of any corrective actions will be maintained by the Quality Assurance Manager.

Appeals on Proficiency Test Results

In the event that the employee tested does not agree with the results and subsequent test rating the following appeal process is utilized:

- The person appealing the test results will first discuss the issue with their immediate supervisor.
- If the issue is not resolved, the person appealing will request, in writing, a review of the rating by the Quality Assurance Manager.
- The Quality Assurance Manager will render a decision on the appeal and deliver a response in writing of that decision.
- If the issue is not satisfied, the person appealing will submit, in writing, a request for review by the Laboratory Director. The Laboratory Director will consult the Quality Assurance Manager on the decision rendered. The Laboratory Director can issue a final decision if deemed necessary.
- At either the Quality Assurance Manager or Laboratory Director level, a proficiency review board (PRB) may be convened to review the information regarding the test and render an opinion. The PRB will consist of supervisors who are not part of the process for this employee or external technical experts as deemed necessary by the Quality Assurance Manager or Laboratory Director. Once the board has made a decision they will render an opinion to the Quality Assurance Manager and Laboratory Director.
- The decision will include recommendations for remediation, if necessary
- The decision of the Laboratory Director, with input from the PRB, is final.

Accountability

- All Class I and II nonconformance will be reported in the next Annual Accreditation Audit Report following the nonconformance.
- A written response to the ASCLD/LAB Proficiency Review Committee (PRC) is required if formally requested. The response should include a description of steps taken to investigate the possible cause of the nonconformance and any corrective action that may have been taken. The QA Manager is required to satisfy the PRC with explanations and/or plans for corrective action.
- Notify the ASCLD/LAB Quality Assurance Manager in writing, with a copy to the appropriate PRC Chair immediately of failure to comply with any external proficiency testing requirement.
- Inform ASCLD/LAB prior to resuming analysis in an accredited discipline or sub-discipline that the laboratory voluntarily suspended as part of a corrective action plan or that the laboratory had discontinued for other reasons.

Records

- Proficiency test file
- Corrective action documentation
- Employee Proficiency Review Forms
- Manufacturer's results
- Appeal documentation

3.2 COURT TESTIMONY MONITORING

Scope
The purpose of monitoring court testimony is to evaluate the accuracy and effectiveness of Forensic Science Division personnel's testimony.

Responsibilities

- The **Quality Assurance Manager** is responsible for:
  - Approving resolution of corrective action

- The **Supervisors** are responsible for:
  - Ensuring that documentation of annual monitoring takes place
  - Maintaining documentation of testimony monitoring

- The **Witness** is responsible for:
  - Informing the supervisor of court appearances;
  - Providing court officials with the opportunity to evaluate the witness's testimony.

Practices (ASCLD/LAB 5.9.6, QAS 12.7)

- Monitors should use the Testimony Evaluation Form (FSD 003 or FSD 004); however, additional criteria may be evaluated at the discretion of key management.
- Testimony Expectations
  - Accurately and completely disclose his or her involvement in the legal proceeding.
  - Testify in a manner which is clear, straight forward, and objective.
  - Limit conclusions to reliable, accurate, and factual results that logically follow from the underlying data and analytical results.
  - Attempt to avoid phrasing testimony in an ambiguous, biased, or misleading manner.
  - Respectfully decline to answer questions outside the witness' discipline or area of expertise.
  - Mock trials are considering training and do not satisfy the annual requirement
- Approved Monitoring **Methods**
  - Methods by which testimony monitoring may be carried out include observation of the testimony by a supervisor or a peer, review of transcripts of testimony given; having one or more officers of the court fill out and return an External Testimony Evaluation Form (FSD 003); or telephone solicitation by the Laboratory Director or supervisor to one or more officers of the court for responses to the evaluation form.
  - Direct Observation – The preferred **method** of monitoring is direct observation.
  - Videotape – videotape of the witness' testimony may be reviewed.
  - Audiotape – Provided the voices of the witness and other trial participants are easily distinguishable, an audiotape of the witness' testimony may be reviewed.
- Frequency of Monitoring
  - Each analyst's courtroom testimony will be monitored annually. In the event that the analyst does not testify at least one time during the year, the supervisor will document this in the employee's audit notebook.
  - The supervisor may require more frequent monitoring of an analyst.

  - The first testimony of any employee testifying in a discipline or category of testing will be monitored, preferably by the Supervisor.
- Review of the Evaluation
  - The supervisor will review the testimony evaluation with the witness and obtain the witness signature.
  - If the supervisor determines that the overall witness testimony is less than satisfactory, the supervisor will prescribe and implement a plan to improve the employee's testimony.
  - Improvement plans may include:
    - Additional moot court training
    - Counseling by the Supervisor
    - Additional court testimony monitoring of the witness
  - If evaluation of the testimony monitoring indicates issues requiring corrective action, the supervisor will follow the prescribed process for corrective action.

Documentation

  - Monitors should use the Testimony Evaluation Form (FSD 003 or FSD 004); however, additional criteria may be evaluated at the discretion of key management.
  - The supervisor will maintain the documentation of testimony monitoring in the employee's audit notebook.

Records

- Testimony Evaluation Form (FSD 003 or FSD 004) or equivalent documentation.

3.3 CASE REVIEWS (ASCLD/LAB 5.9.4/5.9.5)

Scope

A thorough review of the case **record** is performed in order to maintain the integrity, efficiency and accuracy of documentation and laboratory reports (QAS 3.1.1.10).

Responsibilities

- The **Analyst** is responsible for:
  - Conducting the initial/final review of the case **record** for accuracy and completion before the laboratory report is forwarded for review;
  - Ensuring that all documents necessary for appropriate review are available;
  - Forwarding the case record for technical and/or administrative review.

- The **Technical Reviewer** is responsible for:
  - Conducting a thorough technical review of the case **record**
  - Documenting the completion of the review

- The **Administrative Reviewer** is responsible for:
  - Conducting a thorough administrative review
  - Documenting the completion of the review

- The **Supervisor** is responsible for:
  - Ensuring that each case report is administratively reviewed

- Ensuring that the required number of cases are technically reviewed

Practice

Technical Review (ASCLD/LAB 5.9.4)

- The technical review will be conducted by a person authorized on the Laboratory Director (ASCLD/LAB 5.9.4.2, QAS 5.5.1, QAS 12.1.1). A technical reviewer must maintain current proficiency in the category of testing to be granted authority to perform technical review.
- Substance of review (ASCLD/LAB 5.9.4.1)
  - Technical review will occur prior to the release of the report
  - Analysts will not conduct the documented technical review of their own casework, but must thoroughly review the case **record** before submission to the review process (ASCLD/LAB 5.9.4.3)
  - The reviewer will thoroughly examine the case **record** to:
    a) Determine whether the analyst used recognized analytical techniques that conform to the current manuals for that discipline.
    b) Inspect the actual data (where applicable) for quality, validity, appropriately applied calculations and successful data transcription (ISO 5.4.7.1).
    c) Verify that sufficient documentation is in the case **record**, including batch **records**, evidence inventory, chain-of-custody, and disposition of evidence.
    d) Scrutinize the laboratory report to ascertain that the reported conclusions are supported by the case documentation.
    e) Verify the use of standard and correct terminology
    f) Verify that all evidence is described in the examiner's notes.
    g) Each discipline may **define** more specific elements or criteria for the technical review process in their section manuals.
- If the technical reviewer and the analyst do not concur with regard to the reported conclusions or the adequacy of the case **record** documentation, the Technical Leader will moderate the disagreement, determine the appropriate action, and complete the review process. If the Technical Leader is the analyst or reviewer, disagreements will be moderated by the Section Supervisor.
- Required technical reviews:
  - DNA analysis assignments require 100% technical review.
  - Property Crime Unit assignments require 10% technical review.
  - Crime Scene Specialist and Crime Scene Supervisor assignments require 70% technical review
  - Chemistry assignments require 100% technical review
  - Latent Print assignments require 25% technical review
  - Firearm and Toolmark assignments require 25% technical review
  - Information Only reports are not subject to technical review.
  - Polygraph and Multi Media assignments are not considered laboratory analysis and do not require technical review.
- A technical review is not required for corrected reports that are written due to an administrative correction to a report and the technical nature of the report has not been altered.

- The technical reviewer will document their concurrence of the examinations and conclusions as stated in the final report with documentation in the case **record** (hard copy or electronically **recorded** in LIMS).

Administrative Review (ASCLD/LAB 5.9.5)

- The administrative review will be conducted by anyone having access to perform functions in LIMS. Administrative reviews are required for all laboratory analysis reports. Multi Media and Polygraph section reports are not considered laboratory analysis reports. (ASCLD/LAB 5.9.5).
- Analysts will not conduct the documented administrative review of their own casework (ASCLD/LAB 5.9.5)
- The reviewer will thoroughly examine the case records for (ASCLD/LAB 5.9.5.1):
  a) All required elements of the laboratory report
  b) Text of the laboratory report checked for logic and completeness, factual and consistent information, and grammatical correctness
  c) A review of all documentation to ensure the **records** are uniquely identified
- If it was necessary to change the technical nature of the case record prior to issuance of the report, the technical reviewer will be made aware of the revised final record. The technical reviewer will document this notification in the case record.
- If an administrative correction to the case **record**, which did not alter the technical nature of the case **record**, is made, notifying the technical reviewer is not necessary.
- The administrative reviewer will document completion of the review in the case **record** (hard copy or electronically **recorded** in LIMS).This will generate the final report.

Records

- Documentation of the reviews

3.4 LABORATORY AUDITS (QAS 3.1.1.13)

Scope

Each accredited discipline will be audited annually (ASCLD/LAB 4.14.1.1, ISO 4.14.1). These audits will be conducted in a manner similar to one prescribed by the recognized accrediting body. The FBI DNA Quality Assurance Standards for Forensic DNA Laboratories will also be performed annually for the DNA section, either internal or external per document guidelines.

Responsibility

- **Assessors** are responsible for:
  - Assisting with the execution of the audit
  - Reviewing documentation and facility with reference to applicable standards
  - Interviewing personnel
  - Preparing reports of findings and observations

- The **Quality Manager** is responsible for:
  - Preparing the internal audit report

- Preparing laboratory responses to findings, resolving issues, and developing action plans to both internal and external audit reports
- Ensuring that other audits and inspections of the laboratory functions are conducted according to laboratory policies.
- Maintaining documentation of the audits, findings, and corrective actions (ISO 4.14.3).
- Submitting an Annual Report to ASCLD/LAB within thirty calendar days following the laboratory's accreditation anniversary date (ASCLD/LAB 4.14.5).

Practices

Internal Audit (ISO 4.14)

- All accredited disciplines of the Forensic Science Division will be audited at least once annually by an audit team (ISO 4.14.1, ASCLD/LAB 4.14.1), generally during June or July.
- The audit team will be composed of qualified and trained assessors with sufficient technical knowledge to audit to the applicable standards, who are authorized by the Laboratory Director.
- Audit team members will assess the laboratory disciplines based on the following:
  - Current accrediting body standards
  - Current laboratory governing documents
  - A review of case records from each analyst in each category of testing for which case work is conducted
  - Laboratory safety and security measures
  - Evidence handling **procedures**
  - Evidence storage
- Any noted compliance issues should cite the specific criteria violated and objective evidence of the violation. Where the violation affected casework, case numbers should be included in the finding. Significant findings may require corrective action (ISO 4.14.2, ISO 4.14.4)

External Audit

- The Quality Assurance Manager will work with external assessors to facilitate audits of the Forensic Science Division
- The DNA section requires an external audit biennially in accordance with requirements for participation with the National DNA Index System (NDIS).

Records

- Audit Report(s)

3.5 VALIDATION OF METHODS

Scope
New methods, implementation of externally approved procedures, or substantial changes to existing procedures will be subjected to an appropriate internal validation study to assess the procedure's reliability to produce quality results, prior to use on casework (ISO 5.4.5.1, QAS 3.1.1.6, QAS 8.1, ISO 5.4.3).

Responsibility

- Quality Assurance Manager is responsible for:
  - Ensuring that validation of new technical procedures (ISO 4.1.5.i)

- **Technical Leaders** are responsible for:
  - Identifying and reporting the need for validation studies.
  - Overseeing validation studies.
  - Evaluating **methods** and proposing new or modified analytical **procedures.**
  - Developing procedures based on the results of validations (ISO 5.4.5.3)
  - Submitting validation studies to the supervisor for review.

- **Supervisors** are **responsible for:**
  - Reviewing and approving validation studies
  - Maintaining validation **records (ISO 5.4.5.4)**

- **Analysts** are responsible for:
  - Assisting with validation studies

Definitions:
- **Method:** Any process, procedure or instrumental parameter used when examining or handling evidence.
- **Novel method:** Method that has never been published by reputable and peer-reviewed technical organizations in scientific texts or journals, or has never been appropriately evaluated for a specific or unique application.

Practices
- **Developmental Validation** (ISO 5.4.4, ISO 5.4.5.2)
  - A developmental validation involves the determination of the feasibility and accuracy of a novel method used to analyze casework evidence. An extensive study of the limitations, sensitivity, specificity, and reliability as it relates to forensic-type samples is required and the method must be authorized prior to its use on casework evidence.
  - The Supervisor and Laboratory Director must review and approve developmental validations prior to their use on casework evidence
  - With the approval of the Laboratory Director, the completed validation study may be subject to publication.
- **Internal Validation**

- Internal validation is an accumulation of test data within the laboratory to demonstrate that established methods and procedures perform as expected in the laboratory.
- Prior to implementation of scientifically accepted **methods,** the laboratory must demonstrate the performance, limitation, and reproducibility of the **method** (ASCLD/LAB 5.4.5.4) internally. Generally, the implementation of validated **methods** and **procedures** include:
  a) Known and forensic-type samples, sensitivity, and reproducibility and precision
  b) Quality control and performance measures
  c) Uncertainty of measurement will be determined (ISO 5.4.6.2, ISO 5.6.2.2.1) for the following quantitative measurements that are significant to the results and are reported: weight of controlled substances, concentration of controlled substances, blood alcohol quantitation, firearm overall length and firearm barrel length.
- The Supervisor must review and approve internal validations prior to their use on casework evidence

- **Method Modification Validation** (ISO 5.4.5.2)
  - This validation applies to minor changes to an approved method.
  - Prior to using SOP or Technical Manual modifications on casework, it must be demonstrated that the modification does not negatively impact the interpretation of results or integrity of the evidence.
  - A modification validation should include:
    a) Known and forensic-type samples
    b) Comparison study of the current **method** with the modified **method**, to assess sensitivity and/or performance comparability (QAS 8.5)
  - The Supervisor must review and approve method modification validations prior to their use on casework evidence.

- **Competency Test**
  - Analysts are required to successfully complete a competency test on a newly validated **procedure** (Developmental Validation or Internal Validation) prior to using the **procedure** on casework.
  - Method modification validations may not require competency testing.
  - For analysts intimately involved in a validation, the Technical Leader may allow the validation to serve as demonstration of competency. Documentation must be available to indicate that the involvement in the validation was representative of the extent the personnel will be involved in casework applications (QAS 8.4).

3.6 INSTRUMENTS AND EQUIPMENT (ISO 5.5.5, QAS 3.1.1.8)

Scope

The Forensic Science Division uses only those instruments and equipment that perform the necessary functions to achieve quality, dependable results. Instruments and equipment which are significant to the quality of test results must have up-to-date operating **instructions**, have been validated for use on specific **procedures**, be in proper working order, and be calibrated/performance verified as required by the discipline (ISO 5.5.1, ISO 5.4.11, QAS 10.1).

Definitions

Within the scope of this document the following definitions will be used:

- **Critical Instruments or Equipment** – an instrument or equipment that is used to obtain significant data for interpretation of examination results or is significant to the quality of test results
- **Performance Verification** - act of verifying acceptable performance of instruments and equipment through the use of known standards or **methods**.
- **Calibration** - adjusting or standardizing an instrument to a known standard or **method**.
- **Corrective Maintenance** – The **unscheduled** process in response to an instrument or equipment issue that generally involves a repair.
- **Preventive Maintenance** – planned process of ensuring that an instrument or equipment meets performance specifications and is performing in proper working condition; measures may include performance verification, calibration, cleaning, lubricating, reconditioning, adjusting and testing.
- **Instrument Validation** – determination that the instrument or equipment (including associated software) meets the specifications of the **procedures** and is acceptable for use in analyzing evidence.
- **Instrument Software Upgrade Validation** – demonstration of concurrence with past operational software version(s) and expected performance prior to acceptance for use.

Responsibilities

- The **Quality Assurance Manager** is responsible for:
  - Ensuring that balances are maintained within calibration by an approved vendor.

- **Technical Leaders** are responsible for:
  - Identifying instruments (and associated software), and equipment which are significant to the quality of test results (critical instruments)
  - Maintaining a record of critical instruments and equipment
  - Determining the performance specifications, and quality verification requirements
  - Labeling instruments and equipment which are removed from use on casework
  - Ensuring that maintenance and performance verification of instruments and equipment is conducted.
  - Ensure the validation of new instruments and equipment.

- **Analysts** are responsible for:
  - Using only the instruments and equipment that they have been **authorized** to operate (ISO 5.5.2, ISO 5.5.5).
  - Individuals in training may use equipment under the supervision of an authorized user.
  - Conducting instrument validation
  - Documenting performance verification and routine preventive maintenance
  - Performing minor repairs and maintenance of instruments and equipment
  - Prior to use, ensuring that instruments and equipment are current on calibrations and performance checks

- **Supervisor** is responsible for:
  - Reviewing and approving the validation of instruments and associated software prior to use on casework.
  - Ensuring that equipment within their section is properly maintained, including defining the proper maintenance schedule and/or calibration, if necessary, for each piece of equipment.
  - Ensuring that up-to-date instructions on the use and maintenance of equipment (including any relevant manuals provided by the manufacturer) are readily available to analysts (ISO 5.5.3).

Practices

- **Critical Instruments and Equipment**
  - Up-to-date and suitable operating or work **instructions** will be available for instruments and equipment near the instruments or in **designated** areas
  - The performance of instruments and equipment must be verified and/or calibrated at regular intervals as **defined** by section manuals. The **records** will be maintained in the sections. It will normally be necessary to check calibration after any shut down, service, or substantial maintenance. In general, calibration check intervals will not be less stringent than manufacturer's recommendations (ASCLD/LAB 5.6.1.1, ISO 5.5.10).
  - **Records** of the following will be maintained: identity of the item of equipment and its software; manufacturer’s name, model, and serial number (or other unique identification); location (when appropriate); maintenance **records**; repair **records** (ISO 5.5.5).

Validation

- Prior to the use of critical instruments and equipment, a validation of performance must be documented (ISO 5.6.1, ISO 5.5.2).
- Generally, the implementation of instruments and equipment includes:
  - Accuracy, precision, and detection limits (such as limit of detection and/or limit of quantitation)
  - Quality control and performance measures.
- If additional analytical instruments are added of the same model and software package as a previously validated instrument, only a performance check is required (QAS 8.6).

- When instrument associated software is significantly changed or updated, an instrument software validation will be conducted (QAS 8.7).
  - The updated version must be shown not to adversely affect results and must be demonstrated through documentation
  - Externally applied updates (e.g., CODIS, AFIS, and NIBIN) do not require local software validation
- The Supervisor must review and approve the validation of instruments and associated software prior to their use on casework.
- Validation documentation will be maintained in the sections.

Competency Test

- Analysts are required to successfully complete a competency test on a newly validated instrument prior to using the instrument on casework.
- For analysts intimately involved in a validation, the Technical Leader may allow the validation to serve as demonstration of competency. Documentation must be available to indicate that the involvement in the validation was representative of the extent the personnel will be involved in casework applications (QAS 8.4).
- If additional analytical instruments are added of the same model and software package as a previously validated instrument, no competency test is required.

Maintenance

- Maintenance performed on an instrument or equipment should be completed either by a service technician or by an individual having knowledge pertinent to the repair.
- Maintenance must be documented identifying the individual/company who performed the maintenance, date performed, and the nature of the maintenance.
- Routine cleaning and maintenance does not necessarily require performance verification unless it may have altered the ability of the instrument or equipment to perform as expected.
- In the event that major repairs or maintenance is performed, the laboratory must document that the instrument or equipment meets or exceeds its expected performance specification prior to use on casework.

Performance Verification

- A **record** will be maintained of performance verification results including: performance evaluation (pass/fail), date performed, and individual conducting the test.
- The Technical Leader will be notified if acceptable performance verification cannot be obtained. The instrument or equipment must be taken out of service and identified as such. An instrument will remain out of service until acceptable performance verification is obtained (ISO 5.5.7).
- In the event that instruments or equipment go outside the control of the laboratory for repair, maintenance or modification, their performance must be verified before it is returned to service (ISO 5.5.9). An exception is when the instrument or equipment is sent out of the laboratory for calibration.

Calibration

- The following will be documented for calibration of instruments or equipment: date performed and individual conducting the test. A calibration certificate from the service provider will serve as appropriate documentation
- Whenever practical, instruments or equipment requiring calibration will be labeled or otherwise identified to indicate the status of calibration, including the date when last calibrated and the date or expiration criteria when recalibration is due (ISO 5.5.8). When using external calibration services, the companies must be ISO 17025 accredited (ISO 5.6.2.1.1).
- The following critical instruments require calibration as follows (additional instruments requiring calibration will be listed in the section manuals):
  - **Thermometers (Temperature Probes)**
    a) All thermometers and temperature probes will be performance verified every two years. (QAS 10.2.1.1). The performance verification will be **recorded** on the Thermometer Performance Verification Form (FSD 028).
    b) Performance Verification **Procedure**
       - Compare each thermometer or temperature probe reading to the reading of a NIST traceable thermometer or temperature probe by the following **procedure**:
         - Obtain deionized water
         - Insert the thermometer or probe (test and NIST traceable) into deionized water.
         - Wait for temperatures to stabilize and then take the temperature reading.
       - If the test thermometer or temperature probe is outside of the +/- 1.0 ^{o}C range from the NIST traceable thermometer or temperature probe, then the thermometer fails the performance verification.
       - Built in thermometers or temperature probes should be compared against a NIST traceable thermometer or temperature probe for consistency of temperature.
       - The NIST traceable thermometer used for the performance verification is a critical piece of equipment and will be purchased as needed and good for one year from date of calibration.
    c) Maintenance **Procedure**
       - If a thermometer fails the performance verification or if damage to a thermometer or temperature probe is identified, it will either be repaired or replaced

  - **Pipettes**
    Accuracy and precision in dispensing of volumes are important during many routine operations. Accuracy is **defined** as the closeness with which the dispensed volume approximates the volume set on the pipette. Precision is specified as the mean error, the maximum amount by which the mean value of a large number of replicate measurements of the same volume will deviate from the set volume. Serological pipettes do not require calibration (QAS 10.2.1.3).

    a) Quality Control **Procedure**

- Pipette delivery volumes must be checked against known standards to insure proper operation. Spectrophotometric (Artel) or gravimetric calibration will be performed on an annual basis and after repair or maintenance by the laboratory or outside vendor. Pass/fail criteria will be established in the section manuals
- When a pipette is determined to be performing improperly, it will be returned to the manufacturer, or another qualified repair technician, so that the problem may be identified and corrected.
- Quality control data will include the serial number of the pipette (or other means of identification) and the volumes evaluated.
- The calibration forms will be maintained by the section.

b) Maintenance **Procedure**
The proper volume disposable tip will be used for the pipette. In case of accidental entry of liquids into the pipette mechanism, the **procedure** below may be used:

- Remove tip ejector.
- Unscrew the shaft coupling.
- Remove the shaft and inspect the seal assembly and piston for contamination.
- Clean with distilled water.
- Dry with lint free tissue (i.e., Kimwipe)
- Inspect before reassembling. If staining or corrosion is evident, do not use the pipette. Submit for service.
- Reassemble.

➢ **Balances** To meet the goal of measuring weights accurately, all analytical balances used in the laboratory must be calibrated. Balances will be subjected to an annual calibration by an outside vendor and a performance check after repair and or service. Additionally, balances in the Chemistry section will undergo an internal performance check monthly.

a) Quality Control **Procedure**-External (QAS 10.2.1.2)
Calibration will be performed annually or after a major repair. All repairs and calibration log sheets will be maintained by the section.

b) Quality Control **Procedure**-Internal
A monthly performance check will be conducted on balances in the Chemistry section. Any balance that is moved, serviced or repaired will also undergo a performance check prior to use on casework. Performance checks will be documented on the Balance Performance Check Form (FSD 023) and will use mass standards which have been performance checked according to **policy**.

c) Maintenance **Procedure**
Analytical balances will be located in a suitable area that is not exposed to extreme heat, radiation, drafts, extreme vibration, or aggressive chemicals. They

may not be used in hazardous areas where there is danger of explosion. Balances may not be exposed to extreme moisture over long periods of time. When a balance is not performing properly, it will be repaired by the manufacturer or a qualified technician.

- **Mass Standards**
  a) Weights are used to perform the internal performance verification on equipment. The weights will undergo an annual calibration. This will be performed by comparing select weights to readings on a balance within two weeks of the balance's external calibration. The results will be **recorded** on the Weights Calibration Form (FSD 024).
  b) The certified weights will be maintained by the Chemistry section which will ensure annual calibration.
  c) The trigger pull weights will be maintained by the Firearms section which will ensure annual calibration.
  d) If any of the standard weights fail calibration, the weight will be replaced.

- **Calipers/Micrometers**
  These instruments are used to measure, but not limited to, the diameter of bullets and bullet defects in the Firearm/Toolmark Section.
  a) Quality Control **Procedure**-External
     Calipers and micrometers will be calibrated annually by an external vendor
  b) Quality Control **Procedure**-Internal
     - The Technical Leader for the Firearms/Toolmark section is responsible for ensuring that a performance check is conducted and documented at least once each quarter of the calendar year using gauge block standards.
     - The **procedure** is as follows:
       - Ensure that the jaws of the caliper or micrometer are clean and free of any dirt or residue
       - Measure at least two different gauge block standards and **record** the measurements (ex. 0.1000" and 1.000")
       - If the observed measurement is not within .005", the instrument will be removed from service and either re-calibrated by an external vendor or replaced
       - Document the performance check for each caliper using the Caliper Micrometer Performance check form (FSD 029)

- **Gauge Block Standards**
  a) Gauge block standards are used for performance verifications of calipers and micrometers. The gauge block standards will undergo an annual verification. This will be performed by taking measurements of the gauge block standards with a recently calibrated caliper or micrometer (within two weeks of the external calibration of the caliper or micrometer). The results will be **recorded** on the Gauge Block Standards Verification Form (FSD 017)
  b) The Firearms section will ensure the annual verification of the gauge block standards

c) If any of the gauge block standards fails verification, the standard will be replaced.

- **General Equipment**
  a) All equipment used in the analysis of casework evidence will be in proper working order for the function in which they are being used.
  b) General equipment that does not significantly impact the test result may be used and maintained without documentation of maintenance, performance verification, or calibration. Examples of general equipment include hot plates, stirrers, microscopes, cameras, etc.

Records

- Operating or Work **Instructions**
- Instrument and Equipment Inventory
- Instrument Validations
- Instrument Log (containing: maintenance, performance, and calibration where applicable)
- Calibration Certificates

3.7 REAGENTS

Scope

Reagents used in the laboratory must be of sufficient quality for their intended use to ensure quality examination results (QAS 9.2).

Responsibility

- **Technical Leaders** are responsible for:
  - Establishing criteria for the performance of reagents
  - Developing appropriate control, storage, and **procedures** for reagents

- **Analysts** are responsible for:
  - Preparing reagents
  - Documenting reagent reliability
  - Maintaining legible labels on reagent bottles and chemical containers
  - Ensuring reagents have not expired prior to use

Practices (QAS 9.2.1)

- Purchased reagents, stock solutions, and chemicals affecting the quality of tests must be labeled with its name (QAS 9.2.2a) and must be marked with the date of receipt. Purchased reagents must also exhibit an expiration date (QAS 9.2.2b). The expiration date will be determined by the manufacturer or, if no manufacturer expiration date is provided, the expiration date will be indefinite unless defined by the Technical Leader. If a chemical or preparation is transferred into a secondary container for use in a test, the secondary container must at least be labeled with the name of the contents and the NFPA code or equivalent.
- Purchased reagents that affect the quality of tests must be inspected or verified as complying with specifications prior to use on casework samples (ISO 4.6.2).
- Reagents prepared in the laboratory must be labeled with, at a minimum; the name of the reagent (QAS 9.2.3a), preparer's initials (QAS 9.2.3c), and the date of preparation or expiration or both (QAS 9.2.3b and ASCLD/LAB 5.1.3.1). A lot number may also be present. Documentation must also exist showing the reliability of the reagent was tested and worked as expected. The reliability testing must occur before use or, if appropriate, concurrent with the test (ASCLD/LAB 5.1.3.1).
- No reagent or chemical can be used in conjunction with evidence examinations beyond its expiration date.
- All testing will be conducted using proper reagents as specified in the discipline manuals.
- **Procedures** for routinely checking the reliability of reagents must be included in the section manuals, when applicable. The routine recorded use of appropriate controls is a suitable method (ASCLD/LAB 5.1.3).The quality testing information

for reagents must be in a retrievable format. The reliability of some reagents, prepared for one-time case use, may be documented in the case file notes or batch archive. Most reagents should be tested at the time of preparation, or at appropriate time intervals depending upon the stability of the reagent. Any reagent not passing performance verification will not be used.

Records

- Reagent Preparation and QC Log

3.8 Document Management

Scope

Documents that **specify** quality requirements or prescribe quality-affecting activities must be controlled to ensure that they are adequate, approved for use and that only the current version of those documents is in use. This document provides requirements and guidance for properly controlling documents such as Standard Operating **Procedures** (SOPs), Technical Manuals, Safety Manual, and Training Manuals (ISO 4.3.1, ISO 5.4.1).

Relevant Definitions

Within the scope of this document, the following definitions will be used:

- **Effective Date**- the issuance date for a document
- **Document**—information in any medium including, but not limited to, paper copy, computer disk, audio or videotape, or photograph.
- **Document Control**—the process of ensuring that documents that prescribe quality affecting activities or **specify** quality requirements (controlled documents), including revisions, are reviewed for adequacy, approved for release by **authorized** personnel, and distributed for use by personnel performing the prescribed activities.
- **Controlled Document**—a document that is distributed in a controlled manner that ensures that the recipients of controlled copies receive subsequent revisions and replace controlled previous copies. These include Standard Operating **Procedures** (SOPs), Technical Manuals, Safety Manual, and Training Manuals, and forms mandated by **policy.** Controlled documents may be modified by the analyst only to the extent of expanding the current fields as needed. Any other modifications must be approved through the document review/approval process.
- **Forms**—a document used to facilitate the completion of specific tasks and complete documentation. Not all forms are necessarily considered controlled documents; however they should be handled in such a manner.
- **Authorized Document** – a document approved by the Laboratory Director. The official version of all authorized documents is the electronic, controlled version.
- **Record**—a document that provides evidence of a condition, work performed, activities conducted, and/or quality for archival purposes.
- **Uncontrolled Copy**—a copy of a controlled document furnished for informational purposes only. Examples include copies provided to attorneys and outside experts. All

printed copies of official manuals are considered uncontrolled. Any individual that uses a printed copy from a manual is responsible for ensuring that actions based on the **policy**/**procedure**/directive are in compliance with the official manual.

Responsibilities

- The **Document Originator** is responsible for:
  - Presenting documents for consideration with the necessary text, appropriate **instructions**, and requirements;
  - Writing documents with a level of detail commensurate with the complexity of the activity and the background of the expected user;
  - Submitting the revised or new document with documented supporting evidence (i.e., scientific literature, validation study, statutes, etc.) to the quality assurance manager for review.

- The **Laboratory Director** is responsible for:
  - Authorizing all controlled documents (ISO 4.3.2.1)
  - Reviewing and revising the Division standard operating procedures for accuracy and clarity of presentation
  - Ensuring that the required reviews and revisions are completed and documented

- The **Quality Assurance Manager** is responsible for:
  - Ensuring that **authorized** documents are available to all personnel from the link on the front page of LIMS
  - Ensuring that previous electronic versions of authorized documents are removed from the link from the front page of LIMS(ISO 4.3.2.2.c)
  - Maintaining an archive of superseded versions of authorized documents (ISO 4.2.2.d).

- The **Technical Leaders** are responsible for:
  - Reviewing, revising and approving the discipline specific technical and training manuals for accuracy and clarity of presentation

- The **Supervisors** are responsible for:
  - Reviewing and revising the section standard operating procedures for accuracy and clarity of presentation
  - Ensuring that the required reviews and revisions are completed and documented
  - Approving all section specific documents for accuracy and clarity of presentation
  - Submitting all section documents to the Laboratory Director for final approval
  - Removing all outdated hardcopy convenience copies from there section.

- **Employees** are responsible for:
  - Reading and acknowledging the existence of new/revised policies and **procedures**;
  - Following approved policies and **procedures**.
  - Ensuring that only current versions of convenience copies (electronic or hardcopy) of authorized documents are being used.

Practices

- **Controlled Document Format Requirements**
  - Document Identification—Each controlled document will be clearly and uniquely identified with a title, effective date, and discipline designation (ISO 4.3.2.3).
  - Pagination—Present in the header or footer of a document. Each controlled document will clearly indicate the number of pages in the document or will have a mark signifying the end of the document (ISO 4.3.2.3).
  - Document Control Header/Footer—Controlled documents will have a header and footer on each page that collectively contains document identification information.
  - Approval and Revision History—Approval and revision histories will be maintained electronically to provide objective evidence of the approval and changes made to the document.

- **Document Identification**
  - Discipline Designations:
    FSD-Forensic Science Division
    BA-Blood Alcohol
    CS-Crime Scene
    SA- Forensic Science Division Safety
    DNA-Serology/DNA
    FC-Forensic Chemistry
    FA-Firearm/Toolmarks
    LP-Latent Prints
    MM-Multi Media
    PS-Polygraph
    ID-Identification
    DC-Drug Chemistry
    ADM-Administration
    QA-Quality Assurance

- **Review of Current and/or Revised Documents**
  - Each controlled document will be reviewed at least annually and revised as necessary to represent current policies, practices, and technology by the Supervisor or Technical Leader. Typically, this review will be performed as part of the Management Review, but is independent of the annual audit (ISO 4.3.2.2.b).
  - A revised document is subject to the same review, approval, documentation, and issuance requirements as the original document (ISO 4.3.3.1)
  - The review(s) must be documented using the Annual Controlled Document Review Form (FSD 026).

- **Document Approval**
  - Prior to issuance, a new document or revision must be a**uthorized** for use by the Laboratory Director.
  - Document authorization by the Laboratory Director will be maintained by the Quality Assurance Manager.

- **Document Revision and Issuance** (ISO 4.3.2.2, ISO 4.3.3.4)
  - Document revisions typically occur once a year as a result of the Management System Review. Employees will be provided an electronic document (merge and compare) demonstrating the changes made (ISO 4.3.3.2). Employees will sign the Employee Acknowledgement Form (FSD 006) pertaining to the document issuance.
  - If revisions are urgent and must be made sooner than the Management System Review, the change will be documented in a memo, including the effective date (ISO 4.3.3.3). Employees will acknowledge the change in **policy** or **procedure** by signing the Employee Acknowledgement Form (FSD 006) or initialing the memo. All changes by memo must be approved by the Laboratory Director and acknowledged by the affected employees prior to the effective date. If affected employees are absent due to FMLA during the acknowledgement and effective date, the employees will sign a document of acknowledgement upon return to work. Revisions made by memo will be incorporated into the next document revision.
  - All records of acknowledgment and change by memo are maintained by the Quality Assurance Manager.

- **Document Maintenance**
  - **Authorized** documents will be controlled by the Quality Assurance Manager.
  - The official versions of all manuals are maintained on the Forensic Science Division group drive, with a link to all documents located on the front page of the LIMS application (ISO 4.3.2.1). This electronic document list serves as the master list (ISO 4.3.2.2).
  - The supervisors are responsible for ensuring that authorized editions of appropriate documents are available at all locations where operations essential to the effective functioning of the laboratory are performed (ISO 4.3.2.2.a);
  - The Quality Assurance Manager will ensure that approved versions of documents are available to personnel and in use by the effective date. Outdated versions of documents will be archived.
  - All printed working copies must be up to date. Obsolete copies retained for other purposes must be suitably marked (ISO 4.3.2.2.d).
  - Each employee will be expected to follow those **procedures** or policies no later than the effective date.

Records

- Documentation of approval and review of current or pending documents.
- Employee Acknowledgement Form.

3.9 DEVIATION FROM DOCUMENTED PROCEDURES

Scope
At times, it is necessary to temporarily deviate from documented policies or **procedures** as a result of changes in technology, availability of materials, or issues beyond the control of the Forensic Science Division. These practices provide the opportunity to formally **authorize** deviations. Authorized departures from policies and **procedures** must be documented.

Relevant Definitions

- **Deviation**—variance from a documented technical **policy**, **procedure**, or requirement.
- **Major deviation**—a deviation that may extend longer than one week, or a range of circumstances with the potential to generate aberrant results or jeopardize the custody of evidence. In addition, this type of deviation may result in a change in protocol or **procedure**.
- **Minor deviation**—a deviation that is not expected to alter the results of analysis and generally will not extend beyond one week.

Responsibilities

- **The employee requesting a deviation** is responsible for:
  - Initiating a deviation request;
  - Gathering the necessary documentation;
  - Obtaining required authorization before making any deviations.

- **Key Management is** responsible for:
  - Reviewing the deviation request and associated documentation with regard to generally acceptable quality assurance principles and impact on the quality of the work and quality system;
  - Approving or rejecting all minor deviations. Forwarding major deviations to the Quality Assurance Manager.
  - Forwarding all deviations to the Quality Assurance Manager;
  - Maintaining appropriate documentation in the case record if applicable.

- **The Quality Assurance Manager** is responsible for:
  - Approving or rejecting all major deviations
  - Forwarding all major deviations to the Laboratory Director
  - Documenting and maintaining all deviation requests

- **The Laboratory Director is** responsible for:
  - Approving or rejecting all major deviation requests

Practices

- Deviation requests relative to the Technical and Training Manuals will be addressed by the Technical Leader. Deviation requests relative to the Section SOPs will be addressed by the Section Supervisor. Deviation requests relative to the division documents will be addressed by Top Management.

- Discussion with Key Management or the Technical Leader will be the first step. If it is determined that a deviation is required, the requestor will complete a Deviation Request Form (FSD 008).
- A deviation does not eliminate the requirement for performing scientific validation for modifications to examination **procedures** and protocols when determined to be necessary.
- The duration of the deviation will typically be valid only for the specified period of time or circumstance and the laboratory must strive to correct the need for the deviation.

Authorization

- The request for a minor deviation must be approved by Key Management or the Technical Leader before the deviation takes place. This initial approval may be verbal but a Deviation Request Form must be completed and forwarded to the Quality Assurance Manager.
- The Quality Assurance Manager and Laboratory Director must approve all major deviations in advance. Upon approval, all affected members of the section must be made aware of the deviation.
- Temporary amendments or deviations affecting a particular discipline SOP or Technical Manual and considered to be of a “permanent” nature must be submitted for consideration as part of the document revision process. If the requested revision has been denied, it may not be used.
- All deviation requests will be forwarded to the Quality Assurance Manager.

Record

- Deviation Request Form
- Case Records

3.10 Preventive and Corrective Actions (ISO 4.9, ISO 4.11.1, QAS 3.1.1.12)

Scope
This document addresses the process to identify, address and correct work practices that do not conform to approved laboratory procedures. This process will be used for initiating, requesting, implementing, and checking the effectiveness of preventive actions and corrective actions. The purpose of addressing quality issues is to bring about continuous improvement; immediate resolution of incorrect results; determination and remediation of its effect(s) (QAS 14.1b3), if appropriate; and minimize recurrence. These practices encompass numerous areas of concern, including client inquiries; however they may not be applicable to routine maintenance issues or other simple human errors, such as an incorrect reading, transcription, or manual computation, which are usually one time errors.

Definitions
Within the scope of this document, the following definitions will be used:

- **Corrective Action -** action taken to eliminate the causes of an existing nonconformance, deficiency or other unacceptable condition in order to prevent recurrence.
- **Nonconformance** - A condition in which one or more characteristics or conditions do not conform to requirements of accreditation standard, **procedure**, or **policy**.
- **Root Cause** - The underlying reason for an adverse condition of quality, which, if corrected or precluded, would minimize or prevent that condition, and/or similar conditions, from occurring. Cause determination is important to detect systemic problems.
- **Preventive Action**– a process taken to eliminate the cause of potential nonconformities, deficiency, or other unacceptable condition in order to preempt their occurrence.
- **Preventive Action Notification-** written notification to a supervisor or technical leader of the need for a preventive action.
- **Correction** – an action taken to eliminate a detected nonconformity.
- **Significant Problem** – Any condition that, were it to remain uncorrected, could have a serious adverse impact on the validity or credibility of the work performed.

3.10.1 Preventive Action (ISO 4.12)
The purpose of *preventive action* is to identify areas that need improvements as well as identify potential sources of nonconformities, either technical or concerning the management system. Preventive action is a pro-active process to identify opportunities for improvement rather than reaction to problems or complaints.

Responsibilities

- **All Laboratory Personnel** are responsible for:
  - Submitting preventative action notifications on the Preventive Action Form (FSD 005)

- The **Supervisors**, and/or **Technical leaders** are responsible for:
  - Investigating preventive action notifications to determine if action is indicated.
  - Initiating preventive action when necessary

- Notifying the Quality Assurance Manager that a preventive action has been initiated.

- **The Quality Assurance Manager** is responsible for:
  - Reviewing and maintaining all preventive action documents.

Practice

- **Any employee** can initiate a preventive action notification by completing and forwarding the Preventive Action Form (FSD 005) to their supervisor.

- **The Supervisor and/or Technical Leader** will evaluate the proposed preventive action notification and if warranted:
  - Initiate a preventive action
  - Review the preventive action to determine its adequacy. If it is determined to be inadequate, the author will be required to amend the plan and resubmit the preventive action form for review
  - Forward the completed Preventive Action Form (FSD 005) to the Quality Assurance Manager

- **The Quality Assurance Manager** will review the completed Preventive Action Form (FSD 005) and maintain the records.

Records

- Preventive Action Form (FSD 005) with associated documentation.

3.10.2 Corrective Action (ISO 4.11)

The purpose of *corrective action* is to identify opportunities for improvement when nonconforming work (casework or proficiency testing) or departures from management policies and procedures or technical operations have been identified. Corrective action is not disciplinary action. However, if a continuous problem is identified and not resolved with corrective action, disciplinary actions may be initiated. The corrective action will be to a degree appropriate to the magnitude and the risk of the problem (ISO 4.11.3).

Responsibilities

- **All Laboratory Personnel** are responsible for:
  - Identifying and reporting, in writing, nonconformance, deficiency, and/or unacceptable work

- **The Supervisor** is responsible for:
  - Documenting instances of nonconforming work
  - Formulating corrective action documentation
  - Designating a person responsible for completing the corrective action plan
  - Investigating nonconformance, deficiency, and/or unacceptable work product and determining if the affected work product poses a significant risk to the quality of the laboratory

- Forwarding all documentation of non-conforming work to the Quality Assurance Manager.

- **The Quality Assurance Manager** is responsible for:
  - Reviewing and approving all corrective action plans
  - Forwarding all corrective action plans to the Laboratory Director for approval
  - Reporting the occurrence of any corrective actions to ASCLD/LAB in the Annual Report
  - Maintaining **records** of nonconforming work.

- **The Laboratory Director** is responsible for:
  - Ensuring that corrective actions are in alignment with Forensic Science Division goals and that the best possible service in terms of results is achieved
  - Reviewing and approving all corrective action plans

Classes of Nonconforming Work

- Nonconformities are **defined** as Class I, Class II or Class III, depending on the impact of the nonconformance on the quality of the laboratory. The level of nonconformance will be considered in determining any corrective action (ISO 4.9.1.a, ISO 4.9.1.b, ISO 4.9.1.c, QAS 14.1a).
  a) Class I – The nature and cause of the nonconformance raises immediate concern regarding the quality of the laboratory's work product. Examples include erroneous identification, false identification or false positive results.
  b) Class II – The nonconformance is due to a problem which may affect the quality of the work, but is not serious enough to cause immediate concern for the over-all quality of the laboratory's work product. Examples include missed identification, out of focus photos or false negative results.
  c) Class III – The nonconformance is determined to have only minimal affect or significance, be unlikely to recur, is not systemic, and does not significantly affect the fundamental reliability of the laboratory's work. Examples include administrative or transcription errors not detected in the review process.
  d) Repeated instances of Class II or Class III (or a combination of Class II or Class III) nonconformance occurring over time may be viewed as rising to the level of Class I or Class II.

Practices

- When a nonconformance is identified, the supervisor will investigate and document the nonconformance to determining if the affected work product poses a significant risk to the quality of the laboratory. If it is determined that the nonconforming work is likely to recur or if a significant risk to the quality of the laboratory exists, the Quality Assurance Manager will be notified in writing and the supervisor will formulate a corrective action plan (ISO 4.9.2)
- Regardless of the severity of nonconformance, all documentation of nonconformance will be forwarded to the Quality Assurance Manager for archiving.
- When technical issues are involved, the technical leader (if not the supervisor) will be notified in writing
- Isolated employee errors that do not result in issuance of a corrected report, or isolated minor administrative errors that do require a corrected report, do not require generation

of a corrective action plan. However, a continuous employee problem may indicate a need for a corrective action plan. If a continuous employee problem is identified and not resolved with corrective action, disciplinary actions may be initiated.

- Issues requiring corrective action:
  - Anytime a corrected report is issued due to analysis error
  - Continued employee error not corrected through a performance improvement plan (PIP) which requires removal of the employee from casework
  - Instrumental issues in which erroneous results were included in a completed case record, even if the resulting laboratory report did not contain an error
  - Issues with a policy or procedure, that if left uncorrected will result in erroneous analysis results

Corrective Action Plans (ISO 4.9.1.a, QAS 14.1b1):

- All correction actions will at least include:
  - Determination of the root cause (ISO 4.11.2, QAS 14.1b2)
  - Designation of who is responsible for managing the corrective action
  - Establishment of a due date for completion of the corrective action plan
  - Determination of the class of nonconformance as defined in this chapter
  - Determination if the customer will be notified and the work recalled (ISO 4.9.1.d)
    a) Minor issues do not require notification unless additional analyses or reexamination of samples are required once the report has been issued.
    b) If reexamination of work in progress is necessary and no report has been issued, it is not necessary to notify the submitting agency of the additional work or technical issue, so long as it has been fully resolved.
    c) If reexamination is necessary and the analysis for those samples has already been reported to the submitting agency, a new report must be issued, which identifies the affected samples, results, and opinions. In this instance, the customer must be notified.
    d) Depending on the nature and extent of the issue being investigated, the customer may be notified in writing of a change in service.
  - A documented review by the person responsible for the corrective action to determine its adequacy. If the response is determined to be inadequate, the responsible person will amend the corrective action plan and reestablish a due date
- Class I nonconformance
  - The Quality Assurance Manager must be notified, in writing, as soon as practicable
  - The analyst will be removed from casework until the cause of the problem is identified and corrected
  - Additional training of the employee may be indicated
  - Before resuming casework, the employee will be required to satisfactorily complete appropriate additional competency testing and any other requirements (ISO 4.9.1.e, ISO 4.11.4).
  - An audit of prior cases may be required
  - The Quality Assurance Manager will review any remediation and make a recommendation to the Laboratory Director regarding approval for the employee to return to independent casework.
  - Laboratory Director written authorization must be received before resuming independent casework.

- Class II nonconformance
  - The analyst may be removed from casework, at supervisor discretion, while the cause of the problem is identified and corrected.
  - The employee will be coached regarding the specific nonconformance.
  - If the employee is removed from casework:
    a) The Quality Assurance Manager must be notified, in writing, as soon as practicable
    b) The employee will be required to satisfactorily complete appropriate additional competency testing and any other requirements defined in the corrective action plan (ISO 4.9.1.e, ISO 4.11.4).
    c) The Quality Assurance Manager will review any remediation and make a recommendation to the Laboratory Director regarding authorization for the employee to return to independent casework.
    d) Laboratory Director written approval must be received before resuming independent casework.
- Class III nonconformance
  - May be handled by counseling and/or remedial training
  - No additional competency testing is required
- Issues related to Methods/Procedures:
  - The laboratory will immediately cease using the suspect **methods**/**procedures** on casework examinations until the issue is resolved
    a) After identifying the potential source of the problem, either:
      - Reinstate the current **procedure**
      - Propose a **procedure** modification
      - Discontinue the **procedure**
  - If the **procedure** has been modified, it must be validated. The revised **method** must receive final approval by the Laboratory Director for use on casework
  - If necessary, samples may require re-examination and any adjustments to laboratory results must be reported (ISO 4.9.1.e, ISO 4.11.4).

Additional Audits (ISO 4.11.5)

- Where the nonconforming work casts doubts on the laboratory's compliance with its own policies and procedures, or on its compliance with the accreditation standards, the laboratory will ensure that the appropriate areas are audited as soon as possible

Records

- Corrective Action Plans

3.11 SUGGESTIONS/COMPLAINTS (ISO 4.8)

Scope

This document addresses the process for quickly and effectively managing customer concerns or complaints as well as addressing suggestions and complaints with respect to the quality system issued by employees.

Definitions

Within the scope of this document, the following definitions will be used:

- **Complainant** – Entities who either by request for analysis of evidence (i.e. police departments, attorneys, or judges) or by implicit connection to the evidence (i.e. attorneys, and judges) are direct recipients of services provided by the Forensic Science Division. This includes laboratory employees (ASCLD/LAB 4.8.2).
- **Complaints** - Written notification from a complainant of potential quality issues and concerns.

Responsibility

- **Laboratory Personnel** are responsible for:
  - Receive and forward all written complaints to the Quality Assurance Manager
  - Making written recommendations, suggestions, or complaints for improvement on the quality system

- **The Supervisors** are responsible for:
  - Investigate complaints that are forwarded from the Quality Assurance Manager
  - Compile a response to the Quality Assurance Manager

- **The Quality Assurance Manager** is responsible for:
  - Reviewing complaints to determine the basis and merits of the complaints
  - Forwarding complaints to the supervisor, when necessary
  - Responding to the customer in a timely manner
  - Performing follow-up as necessary
  - Maintain **records** of complaints to include the investigations and corrective actions.

- **Laboratory Director** is responsible for:
  - Mediating complaints that are unresolved by the Quality Assurance Manager

Practices

- **Complaint Investigation**
  - Written complaints will be handled according to the magnitude and urgency of the issues.
  - The complaint process begins when the laboratory receives a written complaint.
  - Anonymous complaints will not be addressed
  - A complaint should document the:
    - Complainant name and contact information;
    - Date complaint was received;
    - Nature of the complaint;
  - All written complaints will be forwarded to the Quality Assurance Manager for review
  - The Quality Assurance Manager will forward complaints requiring investigation to the Supervisor
  - The Supervisor is responsible for the investigation of complaints

- Case specific complaints documentation will be attached to the laboratory case record
- If the complaint rises to the level of requiring corrective action, a corrective action plan will be initiated.
- All documents will be maintained by the Quality Assurance Manager

Employee Complaints or Suggestions (ASCLD/LAB 4.8.1)

- All employees are encouraged to identify needs and opportunities to improve our technical and quality **procedures** and policies. All technical laboratory staff is encouraged to review trends and analyze data in search of preventive actions that would foster continued and improved quality.
- Employee suggestions and/or complaints may be treated in a similar manner as "customer complaints" in order to document the process, address the relevant issues, and provide feedback to the employee.
- The appropriate levels of technical and quality management will respond to staff suggestions by examining the opportunity or need and develop plans to implement any changes required.
- Acknowledgements of receipt and appropriate actions to be taken will be forwarded to employees who submit suggestions and/or complaints to management.

Records

- Written complaints and supporting documents

3.12 CUSTOMER SURVEY (ISO 4.7.1, ISO 4.7.2)

Scope
This document addresses the mechanism to identify the needs of the customer and levels of customer satisfaction.

Responsibility

- The **Quality Assurance Manager** is responsible for:
  - Promote the completion of customer surveys
  - Perform follow-up as necessary
  - Summarize results for use in the Quality System Review

- The **Laboratory Director** is responsible for:
  - Ensuring that the performance of the Forensic Science Division is in alignment with communicated goals

Practices
- Assessment of customer satisfaction will be deduced from a general purpose survey of customers. Internal customers and employees may access the general survey through the APD intranet. External customers may provide feedback via information contained within the Physical Evidence Handbook.
- Focused questionnaires for the Forensic Science Division may be used as point-to-point assessments of performance designed to elicit responses to particular areas of interest about employee interaction with a customer in a section or a particular case.
- Since the actions and attitudes of individuals affect the opinion of customers, a careful evaluation of customer observations will assist in identifying strong points and areas where improvements are needed. The questionnaire will be developed and utilized when the Forensic Science Division wishes to obtain information on interaction, or when there is a concern perceived with a particular individual, laboratory or section.
- The Quality Assurance Manager will review the individual surveys and summarize the results
- If it is identified that a recommendation for quality improvement is indicated or a complaint is identified, a corrective action plan may be initiated.

Records
- Customer Survey Results

3.13 REFERENCE STANDARDS AND REFERENCE MATERIALS (ISO 5.6.3)

Scope
Reference standards, reference materials/collections, individual characteristic databases, and controls used in the laboratory must be of sufficient quality for their intended use to ensure quality examination results.

Definitions

- **Reference Standard** (ISO 5.6.3.1) - A reference material that is directly **defined**, established and traceable to some authority. Reference standards will be calibrated on a prescribed schedule by a vendor holding ISO 17025 accreditation for the calibration performed (ISO 5.6.2.1). Where possible, their selection should be based on traceability to SI units of measurement, or to certified reference materials. The reference standards will be used for calibration only and for no other purpose.
- Examples include the mass standards, NIST traceable rulers, gauge blocks and NIST traceable thermometers.
- **Reference Material** (ISO 5.6.3.2) - A material that has known properties, is traceable with previously verified reference materials, and is suitable for purposes of quantification, quality control, and/or performance verification of equipment. Reference materials purchased from an ISO Guide 34:2009 accredited provider shall be appropriately documented and require no further evaluation.
- **Intermediate Check** (ISO 5.6.3.3) – Checks needed to maintain confidence in the calibration status of reference standards and reference materials.
- **Positive Control** - A reference material employed to confirm that a **procedure** will produce the expected results. An example of this is the use of known blood to test the Hemastix prior to use.
- **Negative Control** – A reference material employed to confirm that the **procedure** does not produce an unintended result.

Responsibility

- **Technical Leaders** are responsible for:
  - Identifying relevant controls, standards, materials, and collections;
  - Establishing additional criteria for performance verification of controls and standards, as applicable;
  - Developing appropriate control, storage, and **procedures** for reference collections.

- **Analysts** are responsible for:
  - Using and documenting appropriate quality standards and controls

- **Quality Assurance Manager** is responsible for:
  - Ensuring that appropriate standards, materials, and controls are available, properly used, and adequately documented according to acceptable **methods** and **schedules**
  - Ensuring that reference materials are calibrated according to the prescribed schedule

- Maintaining records of calibration of reference standards

Practices

- No reference material will be used for any other purpose than to verify the parameters for which it is intended.
- Reference materials and reference standards will be handled, transported and stored in accordance with their specific requirements so as to prevent contamination and/or deterioration (ISO 5.6.3.4).

- **Reference Standards (ISO 5.6.3.1)**
  - The Quality Assurance Manager will maintain certificates of calibration and traceability of all reference standards.
  - If mishandling of standards brings accuracy into question, the standards will be taken out of service and recalibrated.
  - All calibrations and adjustments to these materials will be documented.
  - The minimum frequency of the reference standard calibration is as follows (ISO 5.6.3.1):
    a) NIST traceable thermometers - once every year
    b) NIST traceable gauge blocks and rulers – once every five years
    c) NIST traceable mass standards – once every three years

- **Reference Materials**
  - Reference materials are used for performance verification of equipment or instruments
  - All performance verifications will be documented and the documents will be maintained in the section
  - Internally developed standards must be checked against published references or certified reference material identified and controlled. Documentation of traceability must be maintained in the section

- **Controls** (ISO 5.9.1, ISO 5.9.1.a)
  - A control is a reference material which is designed to monitor an analytical process.
  - Appropriate controls and standards will be **specified** in the sections **methods** and their use recorded in the case record (ASCLD/LAB 5.9.1.1).
  - **Procedures** will exist in the section manuals defining acceptable results for controls and action to be taken if these criteria are not met (ISO 5.9.2)

3.14 REFERENCE COLLECTIONS AND DATABASES (ASCLD/LAB 5.6.3.2.1)

- **Reference Collections**
  - Reference collections of items/materials encountered in casework which are maintained for identification, comparison or interpretation purposes (e.g. firearms) will be determined by the respective section Technical Leader.
  - Reference collections will be fully documented, uniquely identified, and properly controlled

- **Individual Characteristic Database Samples (ASCLD/LAB 5.8.4.6)**
  - **Firearms -** Test fires for entry into NIBIN will be treated as evidentiary material and will be uniquely identified, handled, properly controlled, and stored in accordance with their specific requirements to prevent contamination and/or deterioration (ASCLD/LAB 5.8.4.6.1). They will meet chain-of-custody, evidence sealing and protection, evidence storage, and evidence marking requirements (ASCLD/LAB 5.8.4.6.1a), (ASCLD/LAB 5.8.4.6.2), (ASCLD/LAB 5.8.4.6.3).

Records

- List of the primary measurement standards
- Verification/traceability documentation of standards, materials, and controls.

3.15 EXAMINATION VERIFICATION (ASCLD/LAB 4.13.2.12, ASCLD/LAB 5.9.1)

Scope
This document provides the policies and **procedures** regarding the verification of an interpretation/opinion from an examination (i.e. comparative examinations) in the firearms and latent print sections. This is considered a separate process from examination and technical review.

Definitions
- **Association –** identification between evidentiary item(s) and a source has been determined

Policy
- All associations will be verified
- Verification of an interpretation/opinion by a second analyst will occur after the interpretation/opinion has been documented by the original analyst and prior to the issuance of the report
- The verifying analyst must be currently authorized for casework in the category of testing, and cannot be the author of the report
- The record of the review will be made in the case record to indicate that the association has been checked and agree to, by whom and when the check was performed.
- When the verifying analyst does not concur with the reporting analyst's results, then the original analyst's Technical Leader must be notified and oversee the resolution.
  - Additional examination(s) and/or analyst(s) may be used to assist the analysts in their resolution and the observations must be documented.
  - Based on the consideration of additional information, the original analyst or verifying analyst may change his/her interpretation/opinion. The analyst must never be pressured, forced, or told to change his/her interpretation/opinion to agree with the interpretation/opinion of another individual.
  - If at the end of the resolution process the original analyst and all verifying analysts cannot reach a consensus for the final interpretation/opinion, then the interpretation/opinion must be reported as inconclusive.

Relevant Documents
- Case **Record**

3.16 DNA CONTAMINATION DETECTION AND PREVENTION

Scope
The Forensic Science Division is committed to being proactive and taking the necessary steps to reduce the possibility of DNA contamination of evidence by field and laboratory staff. The Forensic Science Division will also utilize a database of employee profiles to identify any biological contamination that does occur. This **policy** also addresses steps taken for laboratory visitors.

Responsibility

- **Key Management** is responsible for:
  - Ensuring that all contamination incidents are investigated and documented.

- **All Forensic Science Division Personnel** are responsible for:
  - Take the required steps to safeguard evidence from DNA contamination
  - Providing a DNA sample

Practices (QAS 9.7)
- Crime Scenes
  - Gloves will be worn at all scenes with the exception of photo-only types of calls (e.g., collisions). For these photo-only types of calls, the use of gloves will be at the discretion of the employee.
  - Shoe covers will be worn at all indoor crime scenes where DNA and/or trace evidence collection is indicated.
  - Protective masks will be worn at any scene where DNA evidence is indicated and will presumably be collected.
- Laboratory Analysis
  - While processing evidence in the laboratory (excluding the Latent Prints employees), employees are encouraged to wear a laboratory coat and gloves. Processing evidence is defined as any activity related to evidence analysis commencing after the outer packaging is open. Laboratory coats and gloves will not be worn in the office areas, rest rooms, lobby and break room.
  - Additionally, while working with potential DNA evidence in the lab a laboratory coat, gloves and a protective mask will be worn.
  - When DNA evidence is being processed in the laboratory, fellow employees will take steps to prevent contamination. These steps may include wearing of a protective mask and avoid talking near or other contact with the evidence.
- Laboratory Visitors
  - Any visitor to a laboratory will wear a lab coat, gloves and a mask if evidence is present, except the Latent Print office and the amplification room of the DNA laboratory.
  - Section supervisors can request additional protective clothing at their discretion.
- Mandated Collection of Biological Samples
  The Forensic Science Division is responsible for examining physical evidence and for determining the DNA profile in biological material. Because DNA contamination can

occur, it is necessary to know the DNA profile of each employee who may come into contact with the laboratory and evidence. Therefore, each employee or other persons with regular access to the laboratory must provide a DNA sample to the DNA section upon request. The employee providing a sample will complete the DNA Sample Acknowledgement Form (FSD 018)

- The DNA profile will be determined by personnel in the DNA laboratory.
- This DNA profile will not be entered into any level of the CODIS database. Samples will only be used to help determine the source of DNA contamination on evidence and for validation purposes within the DNA laboratory.
- The DNA profile will only be available to the employee and the DNA staff.
- The profile will be maintained indefinitely.

- Detected Contamination
  Contamination determined to be from laboratory employees will be addressed as defined in the DNA section governing documents.

Records

- DNA profiles
- DNA Sample Acknowledgement Form (FSD 018)

4 LABORATORY RECORDS

The purpose of this **procedure** is to **define** the system for creating, identifying, collecting, indexing, accessing, filing, storing, maintaining, and disposition of laboratory **records (QAS 11.1a)**.

4.1 Case Record

Scope
Any documentation in any format concerning a case requested for analysis comprises the case **record**. Each new case is provided a unique case number for identification and tracking in the LIMS system. Analyst's work on evidentiary material must be documented to support the conclusions and compiled in such a way that another analyst or management can evaluate the evidence submitted, the chain of custody, the analyses that were performed, the interpretations, and conclusions reached by the analyst, and concurrence with reported results (ASCLD/LAB 4.13.2.5, ISO 4.13.2.1). All Forensic Science Division records are considered confidential (ISO 4.13.1.3).

Responsibility
Employees are responsible for creating accurate documentation in the case **record**

Definitions
- **Administrative Records-** Records, whether electronic or hardcopy, that do not constitute data or information resulting from testing, such as case related conversations, evidence receipts, chain of custody records, description of evidence packaging and seals, incident reports, database search results (AFIS,CODIS,NIBIN), service requests, laboratory report, correspondence received/sent, and other pertinent information.
- **Examination Records-** Documentation, whether electronic or hardcopy, of procedures followed, tests conducted, standards and controls used, diagrams, printouts, photographs, observations, and results of testing and examinations. Examination records are considered technical records.
- **Case Record** – A written or electronic record containing both examination and administrative records which may be received or generated by the laboratory.

Practices
- **Creating a lab case**
  - Lab cases initiated prior to implementation of LIMS
    a) New analysis will be documented in LIMS
    b) The LIMS laboratory number will be documented in the original hard copy case record
    c) It is not required to scan the original case record into LIMS.
  - A lab case can be created upon receiving a request for analysis from a source outside the Forensic Science Division or a request for analysis by a Forensic Science Division employee.
  - If a case requires reports by multiple analysts, each analyst will have their own assignment.

- The laboratory unique identifier is **defined** as the LIMS generated laboratory number.

- **Documentation**
  - The case record must include:
    a) The identity of the method used for analysis (ISO 5.10.2.e)
    b) The address of the customer (ISO 5.10.2.d)
    c) A description of the items tested, including the condition of the item (ISO 5.10.2.f). The LIMS item description, listed on the (4) Items tab, may be modified by the analyst entering the initial description or linking the information from Versadex, but should not be modified by subsequent analysts.
    d) The date of receipt of the test items (ISO 5.10.2.g)
    e) All documentation regarding deviation from the established sampling plan (ISO 5.10.2.f, ISO 5.7.2)
    f) Details of sampling, including the sampling procedure, identification of the sampler, environmental conditions (if relevant) and diagrams or equivalent means to identify the sampling location as necessary and, if appropriate, the statistics the sampling procedures are based upon (ISO 5.7.3, ISO 5.10.3.2.e).
  - Case documentation must contain sufficient data, detail, and organization that will allow a technical reviewer to evaluate and interpret reported results
  - Case documentation may be electronic in LIMS, hard copy or both. Hardcopy files, created after the implementation of LIMS, will have a LIMS barcode affixed to the file.
  - Data generated during the analytical process will be included in the case **record** or its storage location will be identified in the section manuals. This includes operating parameters when instrumental analyses are used (ASCLD/LAB 4.13.2.5.2)
  - All examination records of a hardcopy case **record** will contain the unique identifier and the initials or signature of the person who generated or added the document to the record (ASCLD/LAB 4.13.2.6).
  - If the examination documentation is in hardcopy form prior to inclusion in the case record (e.g. handwritten observation notes, sketches, printed instrumental data), the unique identifier and initials or signature of the person who generated or added the document to the record must appear on each page of the printed documentation.
  - If the examination documentation is in electronic form only (e.g. electronic instrumental data, electronic notes), the unique identifier must appear visibly on the LIMS screen related to the document (ASCLD/LAB 4.13.2.6).
  - Examination records printed from LIMS (e.g. for court or discovery purposes) are not considered the official records and do not require the unique identifier, signature or initials of the analyst. Hardcopy records printed from LIMS will be securely maintained and will be destroyed when no longer needed.
  - All handwritten notes, observations, dates, and initials made on any laboratory **record** will be made in ink, with the exception of sketches or drawings which may be made in pencil (ASCLD/LAB 4.13.2.11).
  - When examination records are recorded on both sides of a page, each side will be treated as a separate page and must contain the unique identifier and initials or signature of the person who generated or added the documentation to the record. (ASCLD/LAB 4.13.2.10).

- Examination **records** are considered complete (stored) when signed by the analyst (prior to technical and administrative review) (ASCLD/LAB 4.13.2.3.2).
- Changes to electronic completed examination **records** will be tracked via the routing function in LIMS (ASCLD/LAB 4.13.2.3.2).
- LIMS assignments will be routed using the following routing codes:
  - A – Routed for administrative review
  - C – Returned to Analyst for Corrections
  - CR – Corrected by the analyst and Rerouted for Review
  - I – Routed for Information
  - T – Routed for technical review
- Deletions or changes made to printed and/or handwritten examination **records** must be crossed out by single line strikethrough with handwritten initials of the person making the alteration (ISO 4.13.2.3, ASCLD/LAB 4.13.2.3.1). The deletion will be dated if it is made after the date or range of dates of the **record**. No erasures, obliterations, or write-overs are permitted in the case **record** unless there is an expunction order. No white out is allowed.
  - Inter-delineations may be used and will be initialed by the author.
  - Additions (**defined** as placing new information on a record after the date or range of dates of the **record**) which are made to printed and/or handwritten **records** must have handwritten initials and must be dated.
  - When corrections involve both an addition and a deletion, the correct information is added near the deletion and must have handwritten initials. The correction will be dated if it is made after the date or range of dates of the **record**.
- Laboratory personnel who issue findings, including writing reports, based on examination **records** generated by another employee, will review all relevant pages of examination **records** in the case **record** and document such review by initialing each page for hard copy files or by adding a narrative in LIMS as to the review that was completed. (ASCLD/LAB 5.10.3.4)
- Original observations, data, and calculations will be **recorded** in the examination documentation when they are made (ISO 4.13.2.2)
- For disciplines requiring examination verification, the verification documentation must indicate that the observation has been confirmed, by whom, and when the verification was performed (ASCLD/LAB 4.13.2.12).
- When examination **records** are prepared by an individual(s) other than the analyst who interprets the findings or prepares the report, the handwritten initials (or secure electronic equivalent) of that individual will be on the examination **record** so that it is clear from the case **record** who performed all stages of the analysis (ASCLD/LAB 4.13.2.7).
- All administrative **records**, received or generated by the laboratory, for a specific case, will be identified with the unique identifier (ASCLD/LAB 4.13.2.8).
- The unique identifier for each case for which data was generated will be appropriately **recorded** on the printout when data from multiple cases is **recorded** on a single printout (ASCLD/LAB 4.13.2.9).
- Abbreviations or symbols specific to a section used in examination **records**, must be listed in the section manuals or must be **defined** the first time it is used in the document. (ASCLD/LAB 4.13.2.13).

- The following data must be documented within the case **record** (ASCLD/LAB 4.13.2.4):

  - Identification of the **methodology** or analytical techniques used
  - Description of the evidence and an unambiguous identification of the item tested
  - Reference to the date of sampling and sampling plan used as prescribed by section **procedures**
  - Dates of examination must be included in the case record that includes at least the start and end dates of the examination (ASCLD/LAB 4.13.2.2.1). The end date will be the date the report is issued. The start date of laboratory analysis will be **defined** in each section's manuals. For field calls, the date and time of arrival at the scene will be recorded in the examination documents and is the start date/time of the field examinations.
  - Deviations from, additions to, or exclusions from the **procedures**, and information on specific test conditions (ISO 5.10.3.1.a)
  - Disposition of evidence

- **Case File Storage**
  - Case files are stored and maintained in a suitably secure and controlled area to prevent damage, deterioration, or loss, unless removed for official business, archival process, or final disposition. Files may be temporarily stored in the sections. Permanent, long term storage of case files will be in the file room in the administrative office area.
  - Paper case files can be archived at Iron Mountain

- **Receipt of the lab case folders into the file room**
  - Once received from the sections, the administrative staff will check in the lab case folder and file the folder according to the laboratory number. Cases prior to LIMS are filed by the APD General Offense Number or the Chemistry Lab Number.

- **Checking Out a Lab Case Folder**
  - During normal business hours lab case files are accessible to all Forensic Science Division personnel.
  - At the time the employee pulls the folder, a check out card will be completed and will replace the removed lab case folder. If the case is in LIMS, the folder will be transferred in LIMS to the employee.
  - To return a file to the file room, the employee will transfer the file back to the administrative section and place it in the "to be filed" basket.
  - After normal business hours the file room is accessible to only Key Management, who will utilize the same **procedures** listed above for pulling and returning folders.

2.3 Laboratory Reports (QAS 3.1.1.9, ISO 5.10.2)

Scope
The results of all analyses will be reported to the customer by means of a written report. Every precaution should be taken to ensure that only **authorized** persons receive the information.

Responsibilities

- **Employees** are responsible for preparing accurate, clear, unambiguous, and objective laboratory reports according to report writing guidelines for all testing completed (ISO 5.10.1).

- **Supervisors** are responsible for ensuring accurate, well written reports are prepared according to appropriate report writing guidelines.

Practices

- **Reporting Format for Test Reports**
  - Except for the report type (e.g. suppmental, corrected, etc.), the header and footer of the report are established by the division and will not be modified by the analyst.
  - The report header includes the agency title and offense number, laboratory number and report number (LRN).
  - The report footer includes a statement of uncertainty, if applicable, accreditation statement and pagination.

- **Elements of a laboratory report must include the following (ISO 5.10.2):**
  - Report title (ISO 5.10.2.a), defined as the section description and issuance date (**defined** as the date the report was administratively approved) (QAS 11.2.7)
  - Name and address of the laboratory (ISO 5.10.2.b). The first page of the report will exhibit the name and address of the laboratory. If tests were conducted at a location removed from the laboratory, that location will be included in the report.
  - Laboratory Number and report number (QAS 11.2.1, ISO 5.10.2.c).
  - Submitting agency's name and case number (ISO 5.10.2.d)
  - Sampling plan, if applicable (ISO 5.10.2.h). Test results containing the results of sampling will include the following, where necessary to interpret the test results (ISO 5.10.3.2):
    a) The date of sampling
    b) Unambiguous identification of the item sampled
    c) The location of sampling, including any diagrams, sketches or photographs
    d) Reference to the sample plan used
    e) Details of any environmental conditions during sampling that may affect the interpretation of the test results
    f) Any deviation to the approved sampling method
  - The test results and, where appropriate, the units of measurement (ISO 5.10.2.i)
  - Listing of items tested (QAS 11.2.2). Where relevant, a statement to the effect that the results relate only to the items tested (ISO 5.10.2.k)
  - Results of analysis and interpretation (ISO 5.10.8, QAS 11.2.5))
    a) The results of analysis and interpretation section will list which requested exhibits were not examined (this does not apply to field investigations), the results of analysis, and the interpretation/conclusion/opinion using approved terminology for the appropriate discipline.

b) If any assumptions were made in reaching an interpretation, conclusion, or opinion, they should be stated as such.
c) When probative associations are made, the significance of the association will be communicated clearly and qualified properly in the report (ASCLD/LAB 5.10.3.5, QAS 11.2.6)
d) When comparative examinations result in the elimination of an individual or object, the report will clearly communicate the elimination (ASCLD/LAB 5.10.3.6)
e) When no definitive conclusions can be reached, the report will clearly communicate the reason(s) (ASCLD/LAB 5.10.3.7)
f) If some laboratory analyses are continuing on particular items of evidence, so indicate.
g) If opinions and interpretations are rendered by the analyst, there must be documentation regarding the basis upon which the opinions and interpretations were made and the opinions and interpretations must be clearly indicated in the report (ISO 5.10.5; ISO 5.10.3.1.d).

- Reports, when necessary, will also contain the following (ISO 5.10.3.1):
  - Deviations from, additions to, or exclusions from the test method, and information on specific test conditions (such as environmental)
  - Where applicable, a statement on the uncertainty of measurement (ISO 5.10.3.1.c)
- Multiple Page Reports: Pagination, the laboratory number and the report number will be listed on each subsequent page of the report.
- Identity (including title) and signature of the author, indicating the end of the report (QAS 11.2.9, ISO 5.10.2.j, ISO 5.10.2.c)
- AFIS, and CODIS reports are not considered test reports. They are Information Only Reports and do not need to adhere to the aforementioned guidelines.
- Any other elements as required by the section manuals.
- When the report contains results of test performed by subcontrators, these results will be clearly identified (ISO 5.10.6)

- **Report Types**
  - **Supplemental Report** (ISO 5.10.9)
    When additional tests are conducted, or additional information is necessary to be reported on the same items of evidence within the same discipline, a supplemental report may be issued.
  - **Corrected Report** (ISO 5.10.9)
    a) Corrected reports will be issued when revision of the analysis information, opinions or conclusions is indicated.
    b) When it is necessary to correct information to a laboratory report after it has been issued and distributed, the revisions must be indicated, identified, or highlighted in the report.
    c) The report which is being corrected must be referenced by the report number and date
    d) The section Supervisor must review all corrected reports. Supervisors not authorized for technical review can only perform the administrative review on corrected reports.
  - **Information Only Reports**

Information only reports are used to communicate and document non-analysis information to a customer. Information only reports are not test reports. Examples include AFIS and CODIS reports.

- The LIMS field "Report Type" will determine the report type printed on the report
  a) SUPP = Supplemental Report
  b) CORR = Corrected Report
  c) INFO = Information Only Report
  d) If left blank, the report type will not appear on the report

- **Cases Closed Without Analysis**
  For assignments administratively closed without analysis and after the assignment is accepted, a notation will be made in LIMS indicating the requesting customer has been informed with the reason for no analysis.

- **Analytical Work not Requiring a Report** (ASCLD/LAB 5.10.1.1)
  Research activities, training exercises, validation studies, or 10 print **record** inter-comparisons do not require a report be issued.

- **Report Distribution**
  - The official signed laboratory report is retained in the case **record** in LIMS.
  - A copy of the final report will be distributed from LIMS to the Versadex **records** management system for internal customers. The Travis County District Attorney's Office has access to this system and can retrieve reports.
  - External customers may receive an encrypted report via email, hard copy report via mail, or they may pick the report up at the Forensic Science Division.
  - A Supervisor may **approve** other modes of report issuance (i.e., fax or email) for their section. The Supervisor will ensure the protection of the data (ISO 5.10.7).

Records

- Lab Case Folders
- Electronic Case Records (LIMS)

4.3 RELEASE OF FORENSIC SCIENCE DIVISION RECORDS AND INFORMATION

4.3.1 Release of Information

Scope
This policy describes the release of case information from the Forensic Science Division (QAS 11.3, QAS 11.3.1, QAS 11.3.2, ISO 4.1.5.c).

Responsibility
All employees with access to case files, evidence, or information are responsible for maintaining the confidentiality of information.

Definitions

- **Case information** includes all field investigation documents, technical documents, administrative documents and laboratory analysis information.
- **Status Information** is **defined** as information which may helpful to an investigator during scene processing. This may be derived from observations or preliminary testing. This may also include non-analysis scheduling information regarding laboratory analysis, such as approximate report availability date.
- **Field Investigation** is **defined** as processing, collection and preservation of evidence at a scene or other locations outside the Forensic Science Building, including work performed in the vehicle inspection buildings.
- **Laboratory Analysis** is **defined** as examination performed in the Forensic Science Building.
- **Exigent circumstances**-Exigent circumstances exist if one or more of the following dangers exist: imminent threat to life, imminent and serious threat to property, imminent destruction of evidence or imminent escape of a suspect.

Practices

- **Discussion of Information**
  - Once the report has been issued, case information may be discussed with law enforcement personnel and attorneys involved in the case.
  - Agencies contacted by laboratory personnel as a result of a database match are considered to be involved in the case.
  - Information will not be released without court order to victims, suspects, family of victims/suspects, expert witnesses, the media or other law enforcement agencies not involved in the case.

- **Case Record Release**
  - Examination records will only be released by court order.
  - The approvals and details of the release will be recorded in the case record.

- **Release of Status Information**
  Employees may release case status information to investigating law enforcement personnel. The scope of this information may be further **defined** in the section manuals, but may not include information that could associate or eliminate an individual or object. Any release of information should be documented in the case record by the person releasing the information.

- **Release of laboratory analysis information based on exigent circumstances**
  When an exigent circumstance exists, analysis information may be provided to the investigating agency prior to the completion of all analyses by the analyst, and issuance of the final "Laboratory Report". These results represent finished work that has been reviewed by a second analyst or supervisor. The review must be documented. Approval by the section supervisor or Top Management is required prior to releasing this analysis information. Approval may initially be written or verbal; however it must be documented in the case folder on The Exigent Circumstance Release Form (FSD 019). This approval must include a description of the exigent circumstance and analysis information released. The analysis information released must be incorporated into the final laboratory report. The completed form must be retained in the case record.

4.3.2 Release of Information to the News Media

The APD Policy Manual contains the Department policy regarding the release of information in criminal investigations to the news media. All requests must be handled in accordance with APD Policy Manual.

4.3.3 Open Records Request

Scope

The following are the guidelines for handling open **records** requests received by Forensic Science Division personnel.

Responsibilities

It is the responsibility of employees to ensure that open **records** requests are handled in accordance with established statutes and Departmental **policy**.

Practices

- All open records requests received by the Forensic Science Division personnel must first be processed by the APD Central Records section.
- Open **records** requests will be processed by the section supervisor or designee.
- If the Section Supervisor determines the request is unfeasible, the Laboratory Director will be informed.
- The Laboratory Director is responsible for determining if assistance is required from the APD Legal Section.

4.3.4 Discovery Orders

Forensic Science Division documents or evidence materials may be released by a lawful court order. The order must **specify** what is ordered for release. When there is doubt about what

should or should not be released, submit a copy of the order to the APD Legal Section for a ruling.

Scope
Evidence and laboratory case records will not be released for examinations without a properly executed court order (signed by a judge). The following guidelines have been implemented by the Forensic Science Division to assist personnel when a discovery order is received.

Definition

- **Discovery order** - A court order that directs the disclosure of specific items or information (for example evidentiary materials or documentation). This may include, but is not limited to: Case **records**, items of evidence, proficiency testing results, Curriculum Vitae(s), proof of accreditation, and instrument and reagent logs.

Practices

- The laboratory, upon being presented with a discovery order (signed by a judge), will make every effort to comply.
- If an employee requires assistance fulfilling a discovery order, they may consult the supervisor or prosecutor.
- If the request is unfeasible, the section supervisor will be informed.
- It is reasonable to ask the prosecutor or defense attorney for a shipping account number if items are to be shipped.
- Evidence items should be shipped overnight.
- Key Management is responsible for determining if assistance is required from the APD Legal Section.

- **Case Records**
  - An on-site review of the case **record** can be accomplished in the Forensic Science Division conference room or other appropriate room.
  - Requests for photocopies of the case **record** and/or additional documentation will be provided if ordered by the court. This information can be provided in a hard copy format or can be burned to a CD. Emails containing case information are only allowed when approved by a supervisor.

- **Evidence**
  - Based on the court order, evidence may be viewed on-site or sent out for re-examination.
  - If evidence is to be sent out:
    a) Items stored in the Evidence Section will be transferred to the section complying with the court order.
    b) Frozen samples retained by the laboratory, and requested for defense re-examination, will be considered taking into account the amount of sample present and the amount requested. An effort should be made to retain a portion of the frozen sample. If the sample will be consumed by the requestor, the appropriate County/State/Federal attorney should be advised.

c) Evidence released for outside testing must be tracked in LIMS. If only a portion of an item is requested for release, a new LIMS item entry will be created for the evidence being released.
d) The removal of an item from the original packaging will be documented on the outside of the original container.
e) Upon return, LIMS will be updated showing the return.

- **Laboratory Records**
  If the court order requires review of validation studies, reagent logs, equipment maintenance **records** or other voluminous documents, the employee may ask if those **records** can be made available for review on-site as opposed to copying and sending the information.

- **Analysis**
  - No analysis by non-division personnel will be performed in the APD laboratory.
  - If observation of analysis by defense experts is court ordered, see " Observation by outside experts" in this document.

4.3.5 REQUESTS FOR REPORTS

Scope
In order to support the criminal justice system, the availability of reports is necessary.

Responsibility
It is the responsibility of employees to provide the necessary report information to the customers.

Practices
- Only completed, administratively reviewed reports will be released.
- Requests for reports may be submitted via email, phone or in person.
- Copies of reports may be mailed or picked up if requested.
- In the case of transmission of reports via electronic means, the Supervisor must ensure secure transmission.
- The release of laboratory reports must adhere to the policy regarding release of information in this chapter.

Records
- A copy of the court order will be retained in the case **record**.

4.5 REMOVAL OF RECORDS FOR COURT

Scope
It is the **policy** of the Forensic Science Division that case records may be removed when an employee goes to court.

Responsibility
All employees will make an effort to utilize copies of lab case information for court purposes, if possible. If originals are removed for court it is the employee's responsibility to ensure that all documents removed for court are properly safeguarded. All employees are responsible for taking all appropriate information to court proceedings, including chain of custodies.

Practices
- For hard copy files, the employee reporting to court will check out the lab case folder from the file room or request it from the administrative section.
- The employee reporting to court should determine if copies of the documents will be acceptable for court purposes and make copies if possible. In the event that originals are required the employee will safe guard the documents.
- If the original is admitted in court, the employee is expected to make an effort to secure copies of the records before leaving court.
- Upon returning to the lab, any original files should be returned to the file room.
- For LIMS records, the employee will print out all necessary documentation, including chain of custodies.
- Copies and electronic records printed from LIMS will be shredded or placed in confidential disposal bins upon return from court.

Records
- Case records

4.5 ARCHIVING LABORATORY CASE RECORDS

Scope
Case records will be retained indefinitely (on site or off)

Responsibility
Key Management will be responsible for ensuring that this **policy** is followed.

Practices
Laboratory case folders are indefinitely retained in the file room or at Iron Mountain.

Records
- Laboratory Case Folders

4.6 EXPUNCTIONS

Scope
The following are the guidelines for handling expunctions received by Forensic Science Division personnel.

Responsibilities
It is the responsibility of employees to ensure that expunctions are handled in accordance with established statutes and Austin Police Department **policy**.

Practices
- A federal, district, county or municipal court may order the expunction of **records** in a criminal or civil case.
- All expunctions are to be received according to Austin Police Department **policy**.
- All laboratory expunctions will be received by the Administrative section.
- A copy of the order, and hardcopy file when applicable, will be forwarded to the responsible sections for action.
- The Court Order to expunge **records** does not provide any legal authority to destroy evidence. The section will not destroy case files and/or evidence as a result of an expunction order, with the exception of DNA reference standards from the individual.
- Expunction orders will be completed by removing the name of the party listed from any and all paperwork, packaging and any database where the information is stored.
- If required, information will be removed from LIMS by the LIMS administrator.
- Once all sections have completed the expunction, the order will be forwarded to the Laboratory Director, or designee, for signature.
- The completed court order will be returned to the Austin Police Department Central Records Section.

Records
- Expunction Orders
- Case **Records**

4.7 CONTROL OF LABORATORY RECORDS (ASCLD/LAB 5.10.3.3, ISO 4.13)

Scope
The purpose of this **procedure** is to **define** the system for identification, collection, indexing, accessing, filing, storing, maintaining, and disposition of laboratory **records**. Archival requirements for various documents are described (ISO 4.13.1.1).

Definitions

Within the scope of this document the following definitions will be used:

- **Transitory information** – Information of temporary usefulness that is not regularly filed within the **record** keeping system, but is required only for a limited period of time for the completion of an action (i.e., copies of **records** for court).
- **Retention period** – The period of time that state **records** must be maintained.
- **Records series** – A group of identical or related **records** that are normally used and/or filed together (i.e. car books, case files, time sheets, instrument logs, etc).
- **Record** – The document which is kept on file as an original or official **record** for the total retention period.
- **Convenience copy** – A copy which is used for reference purposes. It is possible for the same document to be present in two or more locations and be the **record** copy in each unit if it serves a different function in each of those units. Once a document has been archived, then the **record** becomes a convenience copy and it is considered obsolete.
- **Quality record** – Documented evidence that processes were executed according to the quality system

Responsibility

- **Employees** are responsible to:
  Identify and manage **records** in their possession which are subject to the Department's **Records** Retention **Schedule**

- **The Laboratory Records Liaison** is responsible to:
  - Identify and manage lab **records**
  - Ensure that case files are properly archived.

Practices

- **Records Retention Schedule**
  - **Records** must be maintained according to the State of Texas, the City of Austin and the APD **records** retention **schedule** which lists the **records** series that are created and the retention period for each series. The approved retention **schedule** may be used as the basis for the lawful disposition of APD r**ecords**
  - If the document is not listed and is determined by the Quality Assurance Manager to be a relevant quality **record**, it will be retained on-site for five calendar years at the laboratory for review within their accreditation cycle (ISO 4.13.1.2).

- **Case Files**
  - Case files are stored and maintained in a suitably secure and controlled area to prevent damage, deterioration, or loss, unless removed for official business, archival process, or final disposition (ISO 4.13.1.3).
  - Paper case files may be archived at Iron Mountain

- **Quality Records**
  - Quality **records** are stored and maintained in a suitable environment to prevent damage or deterioration and prevent loss.
  - Quality **records** will be submitted to Quality Assurance for archiving.
  - Manner of electronically archiving quality **records**
    - The original copy should be electronically imaged into portable document format (PDF). After imaging, the paper document may be returned to the originating section as a convenience copy.
    - Electronic images will be security protected by Quality Assurance and subject to a back-up process.
  - The following **records** will be retained not less than one full ASCLD/LAB-International accreditation cycle or five years, whichever is longer: court testimony monitoring **records** (ASCLD/LAB 5.9.7), Management Review **records** (ASCLD/LAB 4.15.1.2), Proficiency testing **records** (ASCLD/LAB 5.9.3.6), **Records** of internal audits (ASCLD/LAB 4.14.1.2) and reference collection inventories.

- **Final Disposition of Records**
  - A **record** may be destroyed if:
    - The **record** appears on a **records** retention **schedule**, whose retention period has expired
    - The **record** is exempted from the need to be listed on a **records** destruction request
  - A **record** may not be destroyed if any litigation, claim, negotiation, audit, open **records** request, administrative review, or other action involving the **record** is initiated before the expiration of a retention period for the **record**

5 **EVIDENCE CONTROL** (ISO 5.8.1, QAS 3.1.1.5, QAS 7.1)

5.1 General Practices

Scope
The integrity, preservation, and security of evidence submitted to the Forensic Science Division are of the utmost importance.

Responsibilities

- **Forensic Quality Assurance Specialist (Evidence intake)** is responsible for**:**
  - Receiving evidence and confirming the evidence is sealed and packaged appropriately.
  - Securing evidence by transferring it to the appropriate persons or evidence storage areas.
  - Transporting or shipping evidence for outside testing.
  - Correspondence with customers concerning requests.
- **Supervisors** are responsible for:
  - Confirming that employees are maintaining the chain of custody and integrity of the evidence.
- **Analysts** are responsible for:
  - Maintaining the chain of custody of evidence within their control
  - Properly preserving the integrity of the evidence while in their possession.

Practices

- **Request for service**
  - The customer's request for service will be via LIMS.
  - When a LIMS request is generated, the laboratory is affirming a preliminary acceptance of the proposed request subject to review by an analyst or supervisor.
  - If it is determined that the laboratory cannot comply with the requested examination, the requestor must be contacted to discuss potential modifications of the request or arrange for cancellation of the request. Arranged modifications must be documented.
  - All requests from external agencies must have prior approval from Top Management. This may be in the form of a contract, memorandum of understanding, or written or verbal approval.

- **Outside Agency Submissions**
  - Outside agency evidence may be submitted directly to the Forensic Science Division evidence intake.
    a) Submissions must be entered into LIMS.
    b) Evidence will not be transferred to the Evidence Control Section and will be returned to the submitting agency upon analysis completion.

- **Evidence Receipt and Labeling**
  - Except for the following, all evidence received by the Forensic Science Division will be initially submitted to the Evidence Control Section:
    a) Evidence recovered directly by Forensic Science Division personnel

b) Evidence received from agencies other than the Austin Police Department
c) Rush cases
d) Photographs
   - All photographs taken by Crime Scene personnel are considered evidence and will be stored in the Digital Crime Scene Management System (DCSMS) (ASCLD/LAB 5.8.4.4).
   - Photographs taken by non-Crime Scene personnel to support laboratory analysis are not considered evidence and will be stored in the case record, with the following exceptions:
     - Pursuant to the APD Policy Manual, photographs taken at a crime scene to document evidence prior to collection will be considered evidence and will be stored in the DCSMS. This also includes secondary sites such as the morgue, hospital and vehicle inspection bays. These photos may also be stored in the case record if needed to support reported conclusions or opinions.

- **Requesting Evidence from the Evidence Control Section**
  - Once a request for analysis is ready for processing by the section, the evidence is requested from the Evidence Control Section.
  - The Forensic Science Division personnel will take custody of the evidence from the Evidence Control Section, either in person or from a secured transfer locker.
  - The receipt will be documented in LIMS which initiates the Forensic Science Division chain of custody.
  - Evidence may be returned to the Evidence Control Section via the Central Evidence Lockers (CEL).

- **Chain of Custody** (ASCLD/LAB 5.8.1.1)
  - The official chain of custody will be documented in LIMS (with the exception of DNA cuttings and extracts; see DNA SOP for additional information).
    a) The chain of custody will consist of electronic transmissions and written documentation of transfers
    b) The written documentation of transfers will be scanned into LIMS to document the event
    c) The Evidence Transfer/Release Form (FSD 007) may be used to document written transfers
  - Evidence seized by Forensic Science Division employees
    a) With the exception of sub-items that will be retained within the section, a chain of custody tag will be affixed on the outside layer of the packaging
    b) All items will be entered in Versadex, except evidence from outside agencies
    c) A Versadex tag will be attached to the outside of the packaging before it is placed in long term storage or released from their custody
  - Evidence submitted from an outside agency will only be tracked in LIMS.
  - All person to person transfers require the signature or password of the person receiving the evidence and the person transferring the evidence.
  - All location to person and person to location transfers must be documented by the person conducting the transfer.

- While in the custody of an analyst, evidence stored in secure short term storage assigned to the analyst is not considered a change of location.
  a) Release of evidence in short term storage using a duplicate key maintained by the section supervisor is specifically prohibited.
- If an item of evidence is received that has not been entered in LIMS, the employee will link the item from Versadex and initiate the chain of custody.
- Proof of chain of custody will be kept in the lab case **record**.

- **Packaging, Sealing, and Storing Evidence**
  - All seals created by an employee will be initialed and dated by the employee.
  - A proper seal involves a heat seal, self-adhesive seal, or tape (clear, frangible, etc.) across the opening of the evidence to the point where nothing can be added or removed without destruction or alteration to the seal. The seal documentation should be legible to the point the employee can identify the item as previously being packaged or processed by them.
  - If evidence received is improperly packaged or sealed, the employee will correct the problem and document the actions taken in the case record. This can be achieved by fixing the faulty seal or by placing the item in a new outer container. Care should be taken to not alter any original seal documentation (ASCLD/LAB 5.8.1.1.2, ISO 5.8.3).
  - All original evidence packaging will be retained.
  - When a sealed package is opened, when possible, it should be opened in such a manner as to not compromise existing seals.
  - Evidence transferred between analysts within the same section need not be sealed. However, anytime a transfer of evidence is conducted by Forensic Science Division personnel, evidence will be properly packaged to prevent loss, cross transfer, contamination and/or deleterious change.
  - All exhibits will be re-packaged in the original container when possible. The packaging of the evidence will be re-sealed in a manner that would detect tampering.
  - All evidence containing liquid body fluids must be stored refrigerated until analysis is complete.
  - Tissue and body parts must be stored frozen.
  - Evidence being transported by laboratory personnel must be packaged to ensure protection from loss, cross transfer, contamination, and or deleterious change and labeled to ensure identification (ASCLD/LAB 5.8.4.5).
  - Documentation must exist in the case **record** identifying any person who enters the packaging of an item of evidence. If an individual who is not processing the evidence enters a package, the reason for entering the package will also be documented in the case record.
  - If an entire evidence item is separated from its outermost container and will be stored separately, it must be packaged in its own evidence container and tracked through a documented chain of custody record to the same extent that original item of evidence is tracked. (ASCLD/LAB 5.8.1.1.1).

- **Evidence Labeling (QAS 7.1.1a, ISO 5.8.2)**
  - The outside packaging of all evidence must be marked with the LIMS generated laboratory number, item number(s) (or container designation) and the employee's initials or signature. Every receiving employee is responsible for verifying this has been done before it is placed in long term storage or released from their custody
  - Each item of evidence tested will be marked for identification with the laboratory number, LIMS item number and the employee's initials or signature. Every receiving employee is responsible for verifying this has been done before it is placed in long term storage or released from their custody. If the evidence does not lend itself to marking, its proximal container or identifying tag will be marked (ASCLD/LAB 5.8.4.3). Examples include:
    - The evidence is too small for an identifying mark
    - Marking the item may significantly destroy, damage, deface, or interfere with forensically significant areas of the evidence
    - The nature or texture of the item prevents it from being marked
    - Markings may significantly compromise the monetary or intrinsic value of the article, such as rare artifacts, art, or jewelry
    - The item may be returned to the owner, such as jewelry or firearms.
  - If evidence is collected directly from an individual's body (buccal swabs, neck swabs, hand swabs, etc.), the subject's correctly spelled name, date of birth and sex will be noted on the packaging at the time of collection. The LIMS description will include the individual's name. When evidence swabs are collected from a person's body (hands, face, penis, etc.) a reference standard (saliva) should also be taken from that person when possible.
  - Evidence swabs will include a brief description in LIMS of what was swabbed; i.e., "swab from front door exterior knob".

- **Evidence Storage**
  - Evidence will be stored in each section as prescribed in that section's manuals.
  - Unsealed evidence containers, evidence extracts, or evidence exhibits may be stored in secure short term storage while the examination is ongoing, however they must be handled in such a way to preserve the integrity of the evidence (ASCLD/LAB 5.8.4.2). Once analysis of the case's evidence is complete the items will be sealed and transferred to long term storage (ASCLD/LAB 5.8.4.2.1).

- **Evidence Examination**
  - When there is doubt as to the suitability of an item or if an item does not conform to the description provided, the analyst will consult with the customer before testing begins (ISO 5.8.3). Documentation of this communication will be made in the case record.

- Personal cell phones will not be used to document evidence or crime scenes.
- While in the laboratory, masks, lab coats, and gloves will be worn when working with evidence that will be or is being processed for DNA.
- When multiple individuals are involved in the processing of a case, information as to who performed what part(s) must be documented in the case record.
- Section procedures concerning environmental conditions which could influence the quality of results will exist when applicable (ISO 5.3.1, ISO 5.3.2).
- When evidentiary material is collected from an evidence item (cutting, swabbing, tape lift, etc.) the new sub-item must be uniquely identified, traceable to the original evidence item from which it was collected, and tracked through a documented chain of custody record to the same extent that original item of evidence is tracked. (ASCLD/LAB 5.8.1.1.1).
  a) Sub-items that will be transferred to the Evidence Control Section will be entered in Versadex and a Versadex label will be attached to the outside packaging.
  b) Sub-items that will be stored within the laboratory or will be packaged with the original item need not be entered in Versadex.
- Multiple sub-items may be packaged together as long as each sub-item is protected from loss, cross transfer, contamination and/or deleterious change.
- Upon completion of examination, the evidence will be properly sealed and returned to a secure storage area.

- **Evidence Security** (ISO 5.8.4)
  - The laboratory will take measures to protect evidence under its control from deterioration, loss, damage, cross-transfer, or contamination.
  - Each section will identify secure storage areas for short term (in-process) and bulk storage evidence storage and individuals who have access to those locations.
  - Evidence in short term storage is considered “in-process” and need not be sealed, but must be protected from loss, cross transfer, contamination and/or deleterious change (ASCLD/LAB 5.8.4.2, QAS 7.1.3).
  - All evidence not in the process of examination will be stored in sealed condition in a secured, limited access storage area (bulk storage) (ASCLD/LAB 5.8.4.1).
    a) While it is recognized that not all evidence can be sealed (e.g. bulky items such as furniture, drying marihuana plants, etc.), all evidence must be protected from loss, cross transfer, contamination and/or deleterious change (ASCLD/LAB 5.8.1.1.2).
  - Bulk storage areas must be locked when the operational area of the section is unattended.
  - No evidence will be stored in a case folder.

- **Transfer of Evidence between Sections**
  - Transfer of custody will be documented in the case **record.**
  - Transfer will be in LIMS or via the Evidence Transfer Form (FSD 007).
  - All Evidence Transfer Forms (FSD 007) will be scanned into LIMS.

- **Release of Evidence**
  - Except when evidence is released by Division personnel in court or released for outside analysis, evidence previously submitted through the Evidence Control Section will be returned to the Evidence Control Section for release.
  - Evidence collected from crime scenes may be released at the direction of the investigator if the evidence has not been previously submitted to the Evidence Control Section. Documentation, including chain of custody, will be made in the case **record**, either electronically or written. No LIMS item number needs to be generated if an item is released before Versadex entry.
  - Release of evidence to other laboratories will be documented in the case **record** in LIMS. The evidence intake section will typically be responsible for transporting and shipping evidence to and from outside laboratories.
  - Evidence released during recorded court proceedings will be documented in the case **record** in LIMS. The LIMS custody record will be updated to reflect the release as "evidence transfer/court" (ET/COURT), with a comment stating that the evidence was admitted during testimony. No signature is required from the court personnel taking custody of the evidence in court.
  - Evidence taken to court and released prior to testimony requires completion of a written chain of custody. This may be accomplished using the Evidence Transfer Form (FSD 007) and must include the signatures of the releasing and receiving persons. The LIMS custody record will be updated to reflect the release as "evidence transfer/court" (ET/COURT), with a comment referencing the attached documentation of the transfer.
  - Evidence in the custody of a Forensic Science Division employee will not be released by another staff member unless approval is obtained from Key Management. Approval will be determined based on the criticality of the evidence to the investigation, the stage of processing the evidence is in and any chain of custody issues that could arise as a result of the release. If the release is approved, documentation will be made in the case record.

5.2 Observation by Outside Experts

Scope
As ordered by the court, the Forensic Science Division allows scientific experts to visit the Forensic Science Division's laboratories for the purpose of observing testing **procedures** and/or reviewing documents. These visits and visitation dates must be agreed to by all legal counsel and employees involved. A discovery motion signed by the judge must be presented.

Responsibility

- **Employees** are responsible for:
  - Ensuring that all policies and **procedures** are followed in reference to this process.
  - Ensuring that visitors and all legal counsel are informed of the policies listed below and all visitors adhere to the following policies.

- **Section Supervisors** are responsible for:
  - Advising the Laboratory Director of the request for observation

Practices

- The court order and documentation of the review/observation will be included in the case record.
- The Forensic Science Division must be notified in writing at the time the visitation dates are arranged of exactly who will be observing testing and/or reviewing documents.
- Individuals in attendance who are not arranged for in advance may not be allowed to review documents or be present in the laboratory.
- Only court **designated** scientific experts will be allowed to observe **procedures** or review documents.
- Outside experts must sign in, sign out, wear a visitor tag visible at all times, and be escorted by a Forensic Science Division employee while in the facility.
- A list of all documents requested for review during the visit must be provided at least one week prior to the visit. Additional items will not be provided during the visit. Only general documents and documents specific to the case the outside expert is **appointed** will be made available for review.
- While a scientific expert reviews documents, a Forensic Science Division employee must be present in the room. No materials may be removed from the Forensic Science Division.
- If there has been prior arrangement that copies of certain documents viewed during the visit will be made, those copies will be made after the visit and forwarded to the appropriate individuals. Copies will not be provided at time of the visit.
- Visitors to the facility must follow all safety **procedures**.
- Visitors to the facility may be asked to provide a DNA sample for exclusionary purposes and/or adhere to the contamination **policy**.
- Scientific experts observing testing in a laboratory may only be in the laboratory when **procedures** for the relevant case are being executed.
- Scientific experts observing testing in a laboratory may not ask questions or discuss **procedures** while the analyst is working on evidence. This is required as a courtesy to all staff. If the expert cannot refrain from discussion during testing **procedures**, he or she will be asked to leave the facility.

- Scientific experts visiting a laboratory will not be allowed to perform any type of analysis, or to have any physical contact with evidence.
- Scientific experts observing testing may not initial or sign the laboratory documentation or enter the chain of custody in any way.
- Due to the individual section differences, some laboratory access policies may differ from section to section. Once informed of the differences, outside experts are expected to follow any additional laboratory specific policies not outlined in the document.

Records

- Visitors Log
- Documentation in the lab case file

5.3 EVIDENCE DISPOSAL

Scope
The disposal of evidentiary materials in the custody of the Austin Police Department is a very important function since space limitations prohibit the indefinite storage of some evidence. Evidence disposal may also be necessary as a final disposition for closed cases and in order to reduce the health and security risks involved with certain types of evidence.

Responsibility
The Evidence Control Section is responsible for the disposal of evidence for the Austin Police Department, with the exception of clandestine lab evidence and evidence disposed of by court order.

Practices
- With the exception of clandestine lab evidence and evidence disposed of by court order, the Evidence Control Section will have responsibility to dispose of evidence.
- Clandestine lab evidence will be disposed of according to the Chemistry section manuals.
- Non evidence perishables or substances posing an immediate health hazard, within an evidence container (i.e., water in a water bottle where the bottle is the evidence container requiring processing and the water does not need testing) may be disposed of with supervisor approval. Approval and disposal must be documented in the case **record**.

Record
- Records of evidence disposed by the laboratory.

5.4 DESTRUCTION OF HAZARDOUS SUBSTANCES

Scope
Hazardous substances may be retained in the Forensic Science Division as a result of a seizure of a clandestine laboratory or as part of the laboratory chemical supply. These hazardous materials require special care and must be destroyed by appropriate **methods**.

Responsibility

- **Forensic Scientists** assigned to the Clandestine Lab Response Team are responsible for:
  - Becoming certified for clandestine laboratory safety and maintaining that certification; and
  - Communicating and advising investigators concerning disposal of hazardous substances.

- **Safety Manager** is responsible to:
  - Communicate and advise laboratory personnel on the storage and disposal of hazardous chemicals and waste products in the laboratory.

- **Section Supervisors** are responsible to:
  - Ensure that hazardous chemicals are disposed of properly.
  - Maintain safe conditions in the laboratory and evidence/chemical storage areas.

Practices

- **Hazardous Substances from Clandestine Drug Laboratories**
  - All hazardous materials seized will be handled according to the guidelines set forth by the Forensic Chemistry Section manuals.

- **Hazardous Substances from Other Sources/Waste**
  - Laboratory chemicals and waste should be destroyed as soon as practical.
  - Hazardous Waste should be disposed of by a hazardous waste contractor.

Records
- Records of hazardous waste disposed by the laboratory.

5.5 OUTSOURCING (QAS 3.1.1.15; ISO 4.5)

Scope
Outsourcing is the utilization of a vendor laboratory to provide casework services in lieu of on-site testing.

Responsibility

- **Key Management** is responsible for:
  Approving a vendor laboratory and agreement

- **Technical Leader** is responsible for (QAS 5.2.3.2.3):
  Documenting and maintaining the approval of technical specifications of the outsourcing agreement before the final approval

Practices
- When a laboratory subcontracts work this work will be placed with a competent subcontractor
- The laboratory will advise the customer of the arrangement in writing and, when appropriate, gain the approval of the customer, preferably in writing.
- The laboratory is responsible to the customer for the subcontractor's work, except in the case where the customer specifies which subcontractor is to be used.
- The laboratory will maintain documentation of all subcontractors that it uses for tests and a record of the evidence of compliance with this International Standard for the work in question.
- Vendor laboratories must meet the State Accreditation Guidelines

6 LABORATORY SAFETY

Scope
The Forensic Science Division is committed to providing a safe working environment for all personnel through training, awareness, and good practices through a documented health and safety **program** (ASCLD/LAB 5.3.6, QAS 3.1.1.14, QAS 16.1)

Responsibility

- **Top Management** is responsible for:
  - **Appointing** a safety manager
  - Ensuring that annual safety inspections are conducted and documented (QAS 16.2)

  - **Key Management** is responsible for:
  - Providing training for personnel in proper safety techniques;
  - Providing necessary personal protection equipment;
  - Maintaining a safe working environment;
  - Reporting accidents according to established **policy**;
  - Observing work habits and conditions;
  - Correcting unsafe acts or conditions when noted.

- **All personnel** are responsible for:
  - Attending safety training as provided;
  - Reporting accidents according to established **policy**;
  - Practicing safe techniques in the performance of their duties;
  - Reporting any unsafe conditions.

Practices
- Safe laboratory practices should be followed as outlined in the Forensic Science Division Safety Manual.
- Employees should conduct all work operations and activities in such a manner as to comply with the requirements of the Texas Hazard Communication Act Public Employer Community Right-To-Know Act.
- Occupation Exposure to Hazardous Chemicals in Laboratories (QAS 16.1.1) – Training will be made available to ensure that employees are apprised of the hazards of chemicals present in their work area. The training will include familiarization with safety policies and p**rocedures**, and other reference literature such as Material Safety Data Sheets (MSDS).
- Bloodborne Pathogen (QAS 16.1.2) – Training will be provided for employees with handling and disposing of potential biohazard materials.

Documents
- **Records** of safety inspections
- **Records** of safety training
- **Records** of accidents and exposures to chemical and biohazards

7 PERSONNEL

7.1 Documents

Scope
The following guidelines concern administrative files, personnel files, and access to those files.

Responsibilities – Administrative Files

- Administrative files are the responsibility of the administrative staff
- Only Key Management and administrative staff have access to these files.
  - Administrative Files include:
  - ➢ Correspondence
  - ➢ Purchasing **Records**
  - ➢ Budgeting Information
  - ➢ Intern **Records**
  - ➢ Quality Assurance Files
  - ➢ Applicant Files

Responsibilities - Personnel Files

- Personnel files are maintained in the file room.
- Only Top Management and administrative staff have access to these files
- All personnel files will be tracked in LIMS.

7.2 Subpoenas

Scope
The following are guidelines for handling subpoenas received by personnel.

Responsibilities
It is the responsibility of employees to ensure that they are available for court, unless prior notification of the Court Liaison has been made.

Procedures
Employees are expected to review and follow the subpoena guidelines set forth in the APD Policy Manual.

7.3 Private Case Consultation

Scope
Employees are occasionally requested to conduct private case consultation in their area of expertise for fee. The following are guidelines set forth for this process.

Practices
It is the responsibility of each employee to follow the guidelines set forth in the Austin Police Department Policy Manual, Secondary Employment and Court Appearances Policies.

Activities Prohibited
Division employees will not perform private consultation work on any investigations involving the Austin Police Department.

7.4 Testimony for Previous Employers

Scope
Because many new employees previously worked in the forensic science field, it is necessary for the employee to honor subpoenas for that jurisdiction.

Responsibility
It is the responsibility of the employee to make every attempt to honor the request for appearance in the jurisdiction where they were previously employed.

Practices
- The employee is allowed to make the appearance while on City time and use a City vehicle
- It is the responsibility of the jurisdiction to make travel arrangements and/or any reimbursements to the employee for the appearance, if available.

7.5 Attendance

Scope
The following are guidelines for establishing employee work **schedules**.

Practices
- Supervisors will ensure that an employee's regular work **schedule** accounts for the required hours for their position using productive hours and/or leave.
- For administrative and laboratory staff, a normal work week will be five days (Monday - Friday) and with regular duty hours being 7:30am – 4:00pm.
- Because the crime scene section is a 24 hour operation, crime scene staff hours are dependent on the shift **schedule** to which they are assigned.
- A lunch break is mandatory for all employees, except crime scene personnel, and is outside the 8 hour work **schedule:**
  - Employees opting for a 30 minute lunch period will be required to work an 8.5 hour day (7:30am – 4:00pm).
  - Employees opting for a 1 hour lunch period will be required to work a 9 hour day (7:30am – 4:30pm).
  - Any extended lunch periods (with advanced supervisor approval) are allowed but the extra time must be accounted for (flex time, vacation time, etc.)
- Employees may be afforded the opportunity for two 15 minute breaks per normal work day with one in each half of the work day, if business permits
  - These breaks are not mandatory.
  - Breaks are considered separate periods, which can only be taken the day that they are given, and cannot be combined and taken consecutively, or at the beginning or end of a day.
  - All breaks will be coordinated with the supervisor to ensure coverage of section operations during routine work days.

- **Overtime**
  Overtime work, which will usually take place outside of the regular work day, must be pre-approved by the supervisor prior to beginning the work. Employees on a call back list are considered to be preapproved.

- **Leave**
  - Leave requests will be in written form on the approved APD form.
  - It is the employee's responsibility to ensure that their calendar is free from court, mandatory meetings, etc. before submitting the request.
  - If approved the supervisor will sign the form.
  - Sick Leave will be documented on the proper form upon return.

- **Court Notification**
  It is the employee's responsibility to notify the Court Liaison's office of their upcoming absence.

- **Leave and Tardiness Policy**
  The Forensic Science Division is a vital operation to the Austin Police Department's mission. It has personnel assigned on a twenty-four hour basis. As a result, employee attendance and punctuality is essential in maintaining the continuity and productivity of the Forensic Science Division. All employees are expected to manage their leave usage in a responsible manner.

  - **Definitions**
    a) **Occurrence** – Any unapproved leave usage. Consecutive days of continual absence for the same reason are one occurrence.
    b) **Rolling Period of Time** – A tracking period that may begin on any given date of incident.
    c) **Unapproved Absences** – Unforeseeable absences that are not approved at least one hour in advance.
    d) **Approved Absences** – Foreseeable absences that are approved at least one hour in advance.
    e) **Absenses determined by APD HR to qualify for the Family Medical Leave Act**. FMLA absences are considered approved absences.
    f) **Excessive Unapproved Absenses** – the allotted number of occurrences will be as follows:
       - Employees whose regular **schedule** is 40 hours – more than five (5) occurrences in a rolling 180 day period of time.
       - Employees whose regular **schedule** is 30 hours – more than four (4) occurrences in a rolling 180 day period of time.
       - Employees whose regular **schedule** is 20 hours – more than three (3) occurrences in a rolling 180 day period of time.

g) **Pattern of Abuse** – More than three (3) unapproved absences that are in conjunction with **scheduled** days off and/or in conjunction with approved absences or other patterns as determined by management.
h) **Tardy** - an employee who reports for their assignment **one minute or more** after the **designated** start time.

- **Reporting Illnesses or Non-work Related Injuries**
  a) It is the employee's responsibility to know their leave balances at any given time.
  b) It is the employee's responsibility to ensure that their leave request forms are filled out accurately and signed by the employee upon their return to work.
  c) Employees who call in sick with an illness that is not FMLA related must exhaust their sick leave balances prior to any other form of accrued leave being **authorized.** Employees who do not have any accrued leave benefits may be **authorized** to use Leave Without Pay.
  d) Employees are required to call their supervisor no less than one hour prior to the employee's assigned duty time in order to inform them of an absence. Failure to contact the supervisor in the required time will result in an unapproved absence.
  e) Employees calling in sick less than one hour before their duty time will submit an Attendance Notification Form (FSD 014) explaining the event upon return to work, and may be subject to disciplinary action.
  f) Employees becoming ill while on duty will be allowed to leave as soon as possible with supervisory approval. That instance will be counted as an approved absence.
  g) A Supervisor may require written clarification of work limitations, including a release to work, at any given time.
  h) An employee who calls in sick for work for five or more consecutive work days will be required to submit an HR **Authorized** Medical Release to Return to Work Form (PD 0119) completed by their physician, to APD HR prior to returning to their duties.

- **Monitoring Unscheduled Absences**
  a) Supervisory personnel are responsible for monitoring unapproved leave usage and patterns of abuse.

- **Process for Handling Excessive Absences**
  a) Employees who have excessive unapproved leave usage, as **defined** in this **policy**, and/or demonstrate a pattern of abuse may be subject to disciplinary action. Progressive disciplinary steps as per City of Austin policy may be followed beginning with an oral reprimand. However, the employee's total work history will be taken into consideration.

- **Tardiness**
  - Any employee not at their work assignment at the designated start time and ready to begin is considered tardy.
  - The APD Network phone time will be considered the official time for the Forensic Science Division.
  - If tardiness is inevitable, the employee will notify their supervisor prior to their designated start time.
  - Upon arrival to the work site the **employee** will complete an Attendance Notification form (FSD 014) for any amount of time after their assigned start time.
  - The Supervisor will determine if the event is approved or unapproved. It is at the discretion of the supervisor if calling in early constitutes an approved tardy incident.
  - The Attendance Notification Form (FSD 014) is retained in the Forensic Science Division personnel files
  - If the tardy is approved, the Supervisor may allow the employee to flex the time as described in the APD Policy Manual.
  - If the tardy is unapproved, the Supervisor will document the tardiness as absent without authorization according to the following **schedule**:
    a) 1 – 14 minutes late: no Absent Without Authorization (AWL)
    b) 15 – 29 minutes late: ¼ hour Absent Without Authorization (AWL)
    c) 30– 44 minutes late: ½ hour Absent Without Authorization (AWL)
    d) 45 – 59 minutes late: ¾ hour Absent Without Authorization (AWL)
    e) 60 minutes or above: Amount of time absent from duty. This will also be documented as an unapproved leave incident.
  - Leave time will not be approved for time missed due to unapproved tardiness. The time missed will be coded on the timesheet as Absent Without Authorization (AWL), which is unapproved, unpaid leave.
  - Supervisors will make a diligent inquiry into every case of tardiness with a view of taking disciplinary action for habitual tardiness.

- **Flex Time**
  Flex time will be allowed as described in the APD Policy Manual. The Request for Flex Time Form (FSD 033) will be used for flex time requests. The Supervisor will approved or disapprove the requested time based on the needs of the section.

Records

- Employee Leave Forms
- Attendance Notification Form
- Employee Personnel Files
- Request for Flex Time Form

7.6 Certification of Analysts

Scope
Certain job descriptions include a mandatory certification in the minimum requirement to meet the position. Some of these job descriptions give the person the opportunity to begin employment with the expectation that individual certification will be obtained within the time period specified in the job description.

Practice
- Employees are responsible for attaining the required certifications for their job description within the prescribed time frame.
- Failure to attain certification as prescribed prevents the employee from meeting the minimum requirements of the position.
- Failure to maintain the required certification in a position is also a failure to meet the minimum requirements of the position.
- Failure to meet the minimum requirements of the position will be forwarded to the Human Resources Division for action.

Records
- Certificates

7.7 Employee Training Program

Scope
The Forensic Science Division provides employees with training necessary for the individual to successfully perform their job duties. Each section will have a documented training **program** that will be used to train the employee and assess their progress (ASCLD/LAB 5.2.1.1, ISO 5.2.2).

Responsibility

- **Technical Leaders** are responsible for:
  - Evaluating prior experience of trainees and documenting adjustments to the training **program** as appropriate
  - Ensuring adequate training
  - Monitoring the progress of new employees under the assigned trainer
  - Forwarding training and educational **records** to the Supervisor for approval

- **Supervisors** are responsible for:
  - Monitoring the progress of new employees under the assigned trainer
  - Ensuring that personnel are adequately trained and qualified for assigned duties
  - Forwarding training and educational **records** to the Laboratory Director for approval
  - Maintaining training documentation of supervised personnel

- The **Quality Assurance Manager** is responsible for:
  - Providing support for the trainer (may include providing competency test samples and written examinations);

- Making recommendations to the training **program;**
- Enrolling analysts **authorized** for supervised or independent casework into the laboratory's proficiency testing **program**.
- Forensic Science Division level training.

- The **Trainee** is responsible for:
  - Completing training requirements in a timely manner
  - Satisfactorily completing all competency tests
  - Submitting training/competency documentation for evaluation
  - Updating their Statement of Qualifications, as necessary
  - Maintaining skills and job knowledge

- **Trainer** is responsible for:
  - Administering the training **program** to the trainee
  - Closely supervising and determining day-to-day training activities of the trainee
  - Communicating with the trainee and the trainee's chain-of-command on the progress of training;
  - Providing competency tests for the trainee;
  - Monitoring and evaluating competency testing and all aspects of the training
  - Approving and reviewing training activities
  - Approving the completion of the training **program** for the trainee and recommending the trainee for supervised casework
  - Evaluating the training **program** for improvements

Practice
Evidence from criminal investigations examined by personnel is often introduced into court during a trial. Because of the responsibility of the employee in the Criminal Justice System, it is imperative that each employee involved in the process be sufficiently trained, proven competent, and remain proficient. The elements of the training **program** for the Forensic Science Division include:

- **Formal Education**
  A person employed by the Forensic Science Division is expected to have a certain level of knowledge in their respective field or the educational background that will facilitate their on-the-job training. Specific educational requirements are listed on the job descriptions for each discipline (ASCLD/LAB 5.2.6.1.4, ASCLD/LAB 5.2.6.1.5). ASCLD/LAB requires analysts in the following disciplines to have educational degrees:
  - Drug Chemistry and Toxicology: baccalaureate or advanced degree in a natural science or closely related field (ASCLD/LAB 5.2.6.1.1, ASCLD/LAB 5.2.6.1.2)
  - DNA: baccalaureate or advanced degree in a natural science or closely related field (ASCLD/LAB 5.2.6.1.3). DNA analysts will also meet the specific educational requirements in the FBI Quality Assurance Standards.

- **Training Program**
  - Each discipline will have a documented training **program** which will include training for any category of testing in which casework is performed.

- The training **program** will **define** the minimum requirements for completion of competency and supervised or independent casework.
- The training **program** must also include the application of ethical practices in forensic sciences (ASCLD/LAB 5.2.1.3). Moot court will be included in training **programs** where applicable (ASCLD/LAB 5.2.1.2).
- The training **program** may be adjusted on a case by case basis to accommodate employees who have been hired with prior experience, skills, and knowledge. Any adjustments to the training **program** (i.e. training time and/or **program** content) must be documented by the respective Technical Leader following an evaluation of the trainee's credentials. All new employees, regardless of previous experience, must take a competency test prior to assuming independent casework (ASCLD/LAB 5.2.6.2.1)
- A trainer may be assigned by the Technical Leader to oversee and direct the training in the specific discipline/area.
- Training for each employee will be documented in such a manner that their **records** are retrievable. Each trainee must have documentation of competency testing, completion of training requirements, required exercise/practical result summaries, and other **records** as required by the respective discipline.
- Competency tests must include, at a minimum (ASCLD/LAB 5.2.6.2.2):
  - Examination of sufficient unknown samples to cover the anticipated spectrum of assigned duties and evaluate the individual's ability to perform proper testing **methods**
  - A written report to demonstrate the individual's ability to properly convey results and/or conclusions and the significance of those results (for individuals issuing reports)
  - A written or oral examination to assess the individual's knowledge of the discipline and tasks
  - If a trainee does not successfully complete competency testing, the Supervisor will be notified. The deficiency must be evaluated and training remediated in order to further develop their knowledge, skills, and experience.
- The Laboratory Director will ensure that all individuals have received training and authorization to use instruments and equipment as required.
- Upon completion of a training **program** and competency testing for a discipline/sub-discipline/set of test **procedures** the appropriate individuals (technical leader, supervisor) will complete a memo documenting the event. This memo will be forwarded to the Laboratory Director for final authorization.

Records

- Training records

7.8 Employee Authorization for Casework

Scope

Employees learning new skills are provided the necessary training concluding with competency testing and employee approval for independent casework. Furthermore, it is an expectation of the Forensic Science Division that employees remain competent and proficient in the discipline

in which they perform the duties of their positions as outlined in the City of Austin Job Description for that position.

Practices

- **Supervised Casework**
  - At the discretion of the Technical Leader, a trainee may be authorization for supervised casework prior to authorization for independent casework. Supervised casework is analysis of criminal case evidence by the trainee under the **direct** supervision of a qualified analyst in their discipline.
  - Supervised casework involves interaction between the trainee and the trainer during every phase of the examination.
  - The trainee must successfully complete training and competency testing in the task prior to beginning supervised casework (ISO 5.2.1).
  - Once the Technical Leader is satisfied that the trainee has completed all the necessary training requirements, demonstrated proficiency, and completed required competency tests, the supervisor will forward a memo documenting the event to the Laboratory Director advising that the trainee is recommended for supervised casework (ISO 5.2.1).
  - Authorization for supervised casework will be made by the Laboratory Director.
  - Authorization must be received prior to starting supervised casework.
  - The trainee is the author of the report and is responsible for the analysis and testimony.

- **Independent Casework**
  - Once the Technical Leader is satisfied that the trainee has completed all the necessary training requirements, demonstrated proficiency, and completed required competency tests, the supervisor will forward a memo to the Laboratory Director advising that the trainee is recommended for independent casework (ISO 5.2.1).
  - Authorization for independent casework will be made by the Laboratory Director.
  - Authorization must be received prior to starting independent casework.
  - Removal of an employee from independent casework must be documented in writing to the Quality Assurance Manager.

- **Scope of Authorization**
  Once an analyst has received authorization for supervised or independent casework, the analyst is approved for the following (ISO 5.2.5, ISO 5.5.3):
  - Use of equipment relevant to their duties
  - Processing of evidence using approved **procedures** which they have successfully completed competency testing on
  - Report writing
  - Providing opinions and interpretations concerning the testing conducted

Records

Documentation of Authorization

7.9 Employee Career Development

Scope

A **program** exists within the Forensic Science Division for an employee to advance professionally.

Responsibility

- **Supervisors** are responsible for:
  - Updating the career progression plan as needed
  - Recommending employees for promotion

- **Employees** are responsible for:
  - Meeting the requirements for promotion
  - Acquiring and maintaining individual certification if required
  - Meeting expected performance measures

Practice

- A career progression plan is in place for certain positions within the Forensic Science Division that is based on the employee meeting tangible criteria for promotion.
  - The current plan and application are maintained by the Human Resources Division.
- For progressions that require certifications, the employee is responsible for maintaining their certification in order to maintain their senior status.
  - Failure to maintain this certification will result in demotion to a non-senior status.

Records

- Career Progression Plan

7.10 Continuing Education

Scope

In order to ensure the competency and proficiency of an employee, the Forensic Science Division promotes a **program** of continuing education for its employees.

Responsibility

- **Key Management** is responsible for:
  Ensuring employees receiving annual continuing education as funding permits

- **Employees** are responsible for:
  Continuing education in his/her respective field(s) of the forensic sciences

Practice

- Employees will receive continuing education in their field as resources are available. Documentation will be maintained in the employee's audit notebook.
- Training options may include:
  - Workshops provided by the City of Austin, Austin Police Department, or the Forensic Science Division;
  - Workshops conducted by professional organizations or other agencies;
  - Operator courses for equipment and instrumentation;

  - Professional courses addressing management, productivity, and employee relations;
  - College courses;
  - On-line training,
  - Videotaped training **programs** and computer tutorials.
- Additionally, employees will keep abreast of current trends and technologies with literature review (ASCLD/LAB 5.2.7)
  - Each section will have available a library containing current books, journals, and reference materials for each discipline and/or access to such materials.
  - Each analyst is responsible for taking time to read periodicals, journals, articles, and books in order to keep current with information and developments in their respective disciplines.
  - Examples of encouragement to review literature may include: routing slip or email associated with the readings; documentation on the readings; log sheets; or equivalent documentation.

Records

- Training Records

7.11 Internship Program

Scope

The Austin Police Department participates in an internship **program** consisting of college students. The Forensic Science Division will participate in this **program** whenever possible to expose these interns to the possible careers in the forensic science disciplines.

Responsibilities

- The **Laboratory Director** is responsible for:
  - Managing the internship **program**;
  - Updating the **program** as necessary;
  - Ensuring that the **program** meets the needs of the intern participants
  - Screening and selecting prospective intern participants.

- **Supervisors** are responsible for:
  - Overseeing the intern participants assigned to their section;
  - Providing a positive learning environment;
  - Supervising the intern's daily activities;
  - Ensuring that all paperwork is completed as per Forensic Science Division and college requirements.

- **Interns** are responsible for:
  - Meeting the requirements of the internship **program**;
  - Abiding by policies and **procedure**;
  - Completing all assignments satisfactorily.

- **Administrative staff** are responsible for:
  - Maintaining the internship files.

Practices

- All prospective interns will be furnished the current internship **program** documents to review and apply.
- Once the applications have been received and the deadline for the upcoming semester has been reached, the Laboratory Director or designee will be responsible for reviewing the applications to ensure that all applicants meet the minimum criteria for the **program**.
- The Laboratory Director or designee will receive feedback from the sections supervisors on the number of interns that can be supported for that particular semester by the section.
- Based on the above information, the applicants will be selected for the available internship positions.
- The applications will be forwarded to the Human Resources Division and the applicant will be directed to contact the Human Resources Division, to complete the appropriate documentation and background checks.
- Once all appropriate background clearances are obtained the intern can begin the internship **program**.
- The section supervisor will work with the intern on work **schedules** and length of time of the internship **program**.
- The supervisor will be responsible for keeping a timesheet on the intern hours worked, which will be retained in the intern's folder.
- The supervisor will maintain the intern's folder in the section and maintain all paperwork associated with the **program**.
- The supervisor will also be responsible for ensuring that the documentation for the intern's university is completed and that copies of that documentation is retained in the intern folder.
- Any issues with the intern that deems it necessary to take action and/or terminate their internship will be forwarded to the Laboratory Director for review.
- The Laboratory Director has the right to terminate an internship **program** if the intern fails to meet the requirements of the **program**.
- Once the internship has been completed, the internship folder will be forwarded to the Administrative Section for retention.
- The supervisor will be responsible for obtaining the intern's identification badge and access card
- Interns are not allowed to receive, process or handle evidence.
- Interns will not be granted access to bulk storage areas within the laboratory sections.

Records

- Intern Personnel Folder

7.12 VOLUNTEER PROGRAM

Scope
The Austin Police Department participates in a volunteer **program** consisting of residents that wish to participate in the Department's mission

Responsibilities

- The **Laboratory Director** is responsible for:
  - Managing the volunteer **progra**m;
  - Updating the **program** as necessary;
  - Ensuring that the **program** meets the needs of the volunteer participants; and
  - Screening and selecting prospective volunteer participants.

- **Supervisors** are responsible for:
  - Overseeing the volunteer participants assigned to their section;
  - Supervising the volunteer's daily activities; and
  - Ensuring that all paperwork is completed as per Forensic Science Division **procedures**.

- **Volunteers** are responsible for:
  - Meeting the requirements of the volunteer **program**;
  - Abiding by Forensic Science Division policies and **procedure;**
  - Completing all assignments satisfactorily.

Practices
- All prospective volunteers will be directed to the Austin Police Department's Volunteer Coordinator to complete the appropriate application forms and background checks.
- Once all paperwork has been completed the Volunteer Coordinator will forward the applications to the Laboratory Director for review.
- The Laboratory Director will forward the application to the supervisor of the section of interest.
- The supervisor will determine if the volunteer request can be accommodated.
- The supervisor will recommend the approval or disapproval of the request.
- The application with recommendation will be forwarded to the Laboratory Director for final approval or disapproval.
- If the volunteer request involves working with more than one section, the application must be reviewed by the supervisor of each section who will provide a recommendation of approval or disapproval for their respective section.
- Once the application is approved or disapproved, the paperwork will be forwarded to the Volunteer Coordinator.
- The supervisor will work with the volunteer on work **schedules** and length of time of the volunteer's commitment.
- The supervisor will be responsible for keeping a timesheet on the volunteer hours worked.
- The supervisor will be responsible for obtaining the volunteer an identification badge and access card

Records

- Volunteer Personnel Folder

7.13 RIDER PROGRAM

Scope

The Forensic Science Division's Crime Scene Section participates in the Austin Police Department's rider **program**. The Forensic Science Division will utilize the guidelines and policies established in the APD Policy Manual.

Responsibilities

- The **Laboratory Director** is responsible for:
  - Managing the rider **program**;
  - Updating the **program** as necessary; and
  - Ensuring that the **program** meets the needs of the rider participants.

- **Supervisors** are responsible for:
  - Overseeing the rider participants assigned to their section;
  - Supervising the rider's daily activities; and
  - Ensuring that all paperwork is completed as per Austin Police Department and Forensic Science Division **procedures**.

- **Rider Participants** are responsible for:
  - Meeting the requirements of the rider **program**;
  - Abiding by Austin Police Department and Forensic Science Division policies and **procedures**; and completing all assignments satisfactorily.

- **Administrative staff** are responsible for:
  - Maintaining the rider records.

Practices

- All persons wishing to ride as observers with crime scene units will abide by the current **policy** found in the APD **Policy** Manual.
- For the purpose of this **policy** the following authority is given to civilian management and supervisors when addressing the APD Policy Manual.
  - The Laboratory Director will have the same authority as the Commander
  - The Assistant Manager will have the same authority as the Lieutenant
  - The supervisor will have the same authority as the Sergeant

Records

- Rider Forms

8 COMPUTER RESOURCE MANAGEMENT

Scope

The Division computers are part of the APD computer network. All information within the network is maintained by the City of Austin Information Technology Department (IT Section) (ISO 4.13.1.4).

Responsibility

- It is the responsibility of all personnel to conform to the **procedures** prescribed by the IT section of APD.
- It is the responsibility of the IT Section to maintain the databases, ensure that information is being backed up on a regular basis and controlling the desktop applications on City computer systems (ISO 5.4.7.2).

Practices

- The maintenance and back up of network systems (including LIMS) is conducted by the IT Section as per the guidelines in the APD Network Support Policy.
- It is the **policy** of the Forensic Science Division that the information entered into its computers is confidential.
- When a terminal that is accessible to non-laboratory personnel (i.e. tough books) is left unattended, it will be logged off of the computer network.

Records

- None

Appendix A - LIMS Codes

- **Assignments-LIMS Codes**
  - The following LIMS **status** Codes are available for use:
    - **0 -** Assigned to Section
    - **1 -** Assigned to Analyst
    - **2** – Draft Printed
    - **3** – Ready for Peer Review
    - **4** – Ready for Approval
    - **5** – Approved
    - **B** – Ballistics Analysis Pending
    - **C** – Chemistry analysis Pending
    - **D** – DNA Analysis Pending
    - **E** – Ready for Examination
    - **J** – Crime Scene Evaluation Complete
    - **L** – Latent Print Processing Pending
    - **N –** New Assignments
    - **R** – Requested from property
    - **S** – Assignment suspended

  - The following LIMS **priority** Codes are available for use:

Priority	Description	Section	Function
1	Rocket Docket	DC	
2	Rush – Jail	DC	
3	Normal		
4	Court Requested		
5	Rush – Det/Officer		
6	Rush – Federal		
7	Rush – print DC		
8	Detective Request		
9	TCSO Rocket Docket		
A	AISD case		
B	FA Auth. For Release		
C	Clandestine Lab		
D	Drugs with DNA		
F	AFIS Comparison		
G	Grand Jury		
H	Hays County		
J	Juvenile		
M	Plant Matter Drying		
N	Narc Warrant – Print		
O	Outside Lab		
P	Proficiency		

R	Reversal		
T	System Testing		
U	Federal Pending		
W	Williamson county		
X	Found narc/Property		