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INTRODUCTION

The State of Alaska Department of Public Safety Scientific Crime Detection Laboratory (ASCDL) is a governmental and publicly funded laboratory that provides forensic testing and calibration services for Alaska law enforcement agencies. The Anchorage Police Department (APD) forensic testing employees are housed within the ASCDL facility and operate under the management and quality system of the laboratory as outlined in the Memorandum of Understanding(MOU). [ISO 5.1]

The Laboratory Operations Manual outlines the ASCDL Management System, the Quality Assurance Program, and Health and Safety Program. The Laboratory Operations Manual is supplemented by Discipline Manuals that further define discipline specific requirements and procedures.

The Laboratory Operations Manual covers all forensic operations performed by laboratory employees, APD laboratory employees, and contracted employees at any site where forensic testing or calibration services are performed. All laboratory employees are responsible for performing work within the policies and procedures outlined in this and other laboratory manuals.

TERMS AND DEFINITIONS

Terms and definitions given in the ISO/IEC 17025, ANAB AR 3125, and JCGM 200:2012 also apply to this document unless defined.

ISO/IEC 17025 defines the following verbal forms:

- “Shall”: Indicates a requirement
- “Should”: Indicates a recommendation
- “May”: Indicates a permission
- “Can”: Indicates a possibility

These verbal forms are utilized in the same manner within this document. Should indicates a recommendation and therefore, if not followed, documentation of the reason shall be recorded.

AR 3125 additionally defines the following words (to include forms of the same word) used in ISO/IEC 17025:2017 or AR 3125 require addressing the requirement in writing: [AR 8.2.1.1]

Agreed, Authorize, Define, Instructions, Method, Plan (noun only), Procedure, Program, Record, Schedule, Specify

Adequate:	The principle of being sufficient for a specific requirement.
ABIS:	Acronym for Automated Biometric Identification System
ADAMS:	Acronym for Authenticated Digital Asset Management System
ANAB:	Acronym for ANSI National Accreditation Board
ANSI:	Acronym for American National Standards Institute
APD:	Initialism for Anchorage Police Department

Assistant Chief:	Assistant Chief, Forensic Laboratories
ATF:	Bureau of Alcohol, Tobacco, Firearms, and Explosives
Chain of custody:	Documentation of all evidence transfers from receipt by the Laboratory until return to the submitting agency.
Chief:	Chief, Forensic Laboratories also FSLA 2 (ANAB, AR 3125, 3.16)
CODIS:	Acronym for Combined DNA Index System
Controlled document:	A document distributed in a controlled manner to ensure that recipients receive subsequent revisions and replace previous versions to ensure current information is being utilized. Examples of Controlled Documents include but are not limited to this manual, Discipline Procedure Manuals, and Discipline Training Manuals.
CTS:	Initialism for Collaborative Testing Services a proficiency test provider used by the Laboratory.
DRF:	Initialism for Deviation Request Form
Examination documentation:	Case record documents with reference to procedures followed, tests conducted, standards/controls used, observations and results of examinations stored in the LIMS.
Examination record:	Case record documents for one specific case stored in the electronic case file in the LIMS.
FA:	Initialism for Forensic Assurance a proficiency test provider used by the Laboratory.
FSLA:	Initialism for Forensic Science Laboratory Administrator
FS:	Initialism for Forensic Scientist
FT:	Initialism for Forensic Technician
Investigative Report:	This is a report issued by the Laboratory that is meant for aiding law enforcement in the investigation period of a crime. These reports are not prepared with the intention of being admitted into the court room as a scientific analysis. The reports will meet the standards set forth in the ISO 17025:2017 document but are treated differently within the Laboratory than a Technical Report.
Issuing authority (ies):	Personnel authorized to direct and implement document revisions. This will typically be Top Management (the Chief, Assistant Chief, Quality Assurance Manager), DNA Technical Manager, Discipline Supervisors, CODIS Administrator, or Scientific Director of the Forensic Alcohol Program.
Key Management:	Laboratory Management that includes the Chief, Assistant Chief, Quality Assurance Manager, Safety Coordinator, Discipline Supervisors, the DNA Technical Manager, Evidence Supervisor, and the APD Forensic Supervisor.

Laboratory Employee:	All persons employed by the State of Alaska Department of Public Safety Scientific Crime Detection Laboratory and Anchorage Police Department employees with a duty station assignment at 4805 Dr. Martin Luther King Jr Ave. and job functions/expectations described in a Memorandum of Understanding between the State of Alaska and the Anchorage Police Department. All persons are responsible for following the State of Alaska Department of Public Safety protocols as defined in this manual as the laboratory quality assurance system is built upon those policies and procedures. Persons employed by APD may be subject to further requirements set forth by that department. MOUs have been established to define these duties and expectations.
LIMS:	Acronym for Laboratory Information Management System
MOU:	Initialism for Memorandum of Understanding. This is a document that acts as an agreement (contract) between the Laboratory and another entity and defines the duties and expectations of each party involved.
NETP:	New Employee Training Program
MROS:	Initialism for Minimum Required Operating Standards (for NIBIN Sites)
NIBIN:	Acronym for National Integrated Ballistic Information Network
OIT:	Acronym for Office of Information Technology
OSAC:	Acronym for The Organization of Scientific Area Committees for Forensic Science (a part of the National Institute of Standards and Technology)
QA:	Initialism for Quality Assurance
QAR:	Initialism for Quality Assurance Review. This is the process used to evaluate risk associated with non-conforming work and/or preventative action. It includes root cause analysis and corrective/preventative actions if applicable.
RLS:	Initialism for Request for Laboratory Services Form
SCDL:	Initialism for Alaska Department of Public Safety Scientific Crime Detection Laboratory (also referred to as “the Laboratory”)
SOQ:	Initialism for Statement of Qualifications (also referred to as curriculum vitae)
Technical Report:	This is a report issued by the Laboratory that is meant to present results, opinions, and conclusions. These reports are prepared with the intention of being admitted into the court room as a scientific analysis. The reports will meet the standards set forth in the ISO 17025:2017 document but are treated differently within the Laboratory than an Investigative Report.
Top Management:	The Chief, Assistant Chief, and the Quality Assurance Manager have laboratory wide authority.

MISSION AND OBJECTIVES

The mission of the ASCDL is to provide scientific support to the criminal justice system to help create a safer Alaska.

The scientific support comes in the form of routine casework functions of analysis, reporting, interpretation, and testimony. It also occurs through the education of criminal justice system stakeholders and using data driven decisions to inform policy.

All work conducted at the ASCDL strives to be transparent, understandable, and justifiable. By adhering to these principles along with accreditation and national best standards the work conducted by the ASCDL will be of the highest quality and integrity.

The ASCDL has a strategic plan (Strategic Plans) based around four critical domains: Customer Service, Organizational Health, Scientific Validity, and Financial Planning. Each of these domains has a series of smaller goals, objectives, and key performance indicators that should lead to improvements. [QAS 3.1.1.1] Top Management Meetings, Quarterly Discipline Quality Assurance/Metrics meetings, and the Annual Management Review are used to track progress and set new goals and objectives.

ACCREDITATION/STANDARDS

ASCDL is accredited by ANSI National Accreditation Board (ANAB) to the ISO/IEC 17025 Standard, supplemental requirements of the accrediting body (ANAB AR 3125), and the FBI Quality Assurance Standards for DNA Databasing and Forensic DNA Testing Laboratories. The Laboratory conforms to these standards in the range of laboratory activities as defined on the most current Scope of Accreditation. The Laboratory does not claim conformity with ISO/IEC 17025:2017 nor ANAB AR 3125 for services performed not listed on the Scope of Accreditation. [ISO 5.3]

The Laboratory is a National DNA Index System (NDIS) participating laboratory and as such conforms to the requirements in the NDIS Operational Procedures Manual and applicable FBI Quality Assurance Standards.

The Laboratory National Integrated Ballistic Information Network (NIBIN) program is not accredited to ISO/IEC 17025 nor ANAB AR 3125 but follows the Minimum Required Operating Standards for NIBIN Sites.

ASCDL is an implementer of Organization of Scientific Area Committees (OSAC) for Forensic Science registry standards. Adopted standards are incorporated into the relevant discipline procedure manuals and records associated with standard evaluation are retained in SharePoint.

Throughout this document superscript notations listed as ISO followed by a clause number are referring to ISO/IEC 17025 accreditation requirements, AR followed by a clause is referring to an ANAB AR 3125 requirement, and QAS followed by a clause is referring to an FBI QAS requirement. These notations are intended to assist assessors/auditors in locating evidence of conformance to the listed requirement.

SERVICES PROVIDED

The Laboratory performs forensic testing services to meet, at a minimum, the requirements of the State of Alaska, accrediting bodies (see Accreditation/Standards), and to satisfy the needs of the customer. The Laboratory Management System covers all forensic operations performed by laboratory employees and contracted employees at any site where forensic testing or calibration services are performed. [ISO 5.4]

Forensic testing services at ASCDL include:

- Forensic Biology (DNA) Testing
- Forensic Biology (DNA) Database
- Seized Drug Analysis
- Toxicology (Blood Alcohol Only)
- Latent Print Analysis
- Firearm and Toolmark Analysis
- Footwear Impression Analysis
- Crime Scene Investigation

ASCDL also maintains the Statewide Breath Testing Program including forensic calibration service for breath testing instruments.

Discipline Procedure Manuals shall define the types of analyses/examinations performed by their discipline. By omission from this definition, it defines the types of examinations that shall not be performed.

In addition to testing and calibration services the ASCDL provides training to law enforcement agencies and members of the criminal justice system.

IMPARTIALITY AND ETHICS ISO 4.1

The ASCDL is committed to ensuring all activities are undertaken impartially and policies and procedures are structured and managed so as to safeguard impartiality.

The State of Alaska ethics information for public employees and Alaska Department of Public Safety Operating Procedures Manual (OPM) Standards of Conduct Chapter 101 applies to all state laboratory employees and is provided as part of the New Employee Training Program. APD laboratory employees are held to the Anchorage Police Department Code of Conduct. Additional ethics training is provided annually utilizing the ANAB Guiding Principles of Professional Responsibility for Forensic Service Providers and Forensic Personnel document (PR 3150). Documentation of this training is kept in the quality assurance records. AR 4.1.3.1

The Laboratory Management System directs laboratory employees to avoid any activity, interest, or association that interferes or appears to interfere with their independent exercise of professional judgment. Any conflicts of interest or concerns shall be brought to the attention of the employee's direct supervisor immediately. State of Alaska laboratory employees will complete and submit a State of Alaska Ethics Disclosure Form to request permission for outside employment, including volunteer work. Personnel employed by APD will submit ethics disclosures to the **Quality Assurance Manager** to be stored in the quality assurance records.

The Laboratory Management System ensures there are no undue internal and external influences on the professional judgment of all laboratory management and personnel. Any identification of a risk of impartiality will be brought to the attention of **Top Management** and a plan to eliminate or minimize the risk will be executed and documented. ISO 4.1.5, AR 4.1.3.1.c Documentation of this evaluation and plan will be stored in the quality assurance records.

At a minimum, the Laboratory Management System reviews risks to its impartiality each year as part of the Annual Management Review. Examples of risks should include the laboratory organizational structure, relationships of the laboratory, and relationships of the laboratory personnel. ISO 4.1.4

CONFIDENTIALITY ISO 4.2

The Request for Laboratory Services Form (RLS), NIBIN Request Form or Footwear Intelligence Webform defines the submitting agency, or primary customer, for forensic testing services and serves as the contract for the requested testing. Requests for testing services on digital evidence (photographs) collected during crime scene response can also be documented in case activities by the crime scene analyst. The primary customer for crime scene response is the agency who requested the response. ISO 4.2.1

In addition to the submitting law enforcement agency the responsible prosecutorial agencies are considered a secondary customer. The submitting agency can direct the laboratory to include other agencies as a secondary customer but written documentation of this must be retained in the LIMS.

The primary customer (designated as the primary agency in LIMS) has the following abilities unless otherwise noted in case restriction:

- Full release of all case information
- Ability to cancel testing
- Ability to add testing not requested on the RLS
- Ability to add secondary customers
- Ability to change the primary customer to another agency
- Ability to request evidence be shipped to a different location or designate a different agency for pickup

Secondary customers (all other agencies not designated as primary in the LIMS) have the following abilities unless otherwise noted in case restriction:

- Full release of all case information

In some instances, multiple agencies participate in the investigation of a single event. In this situation, requests from multiple law enforcement agencies may be logged under the same laboratory case number. In these instances, one of the agencies will be designated as the primary agency in LIMS; however, the submitting agency for each evidence item retains the primary agency role for evidence they submit unless they choose to assign that role to another agency. These changes will be documented in the LIMS.

If secondary customers request laboratory testing not present on the original RLS the primary customer must approve this request and a record of this communication is retained in the LIMS. Secondary customers may make requests for additional interpretation or opinions from existing testing without approval from the primary customer. Secondary customers may also provide information that is relevant to the laboratory in making triage decisions or cancelling testing. Laboratory personnel shall document this information in the technical record and will notify the primary agency as necessary per laboratory policy.

Case-related information should not be disseminated by the Laboratory or individuals working on the laboratory's behalf to any individual or organization other than the primary or secondary customer except as described in the Request for Laboratory Services (RLS) Form notification (see below) or otherwise required by law. ISO 4.2.1, 4.2.4 Unless prohibited by law, the primary customer will be notified when the Laboratory is required by law or authorized by contractual arrangements to release confidential information to entities other than those listed in the RLS form notification box. Record of this notification will be stored in the LIMS. ISO 4.2.2

In certain instances, information from the (RLS) Form may be provided in part or whole to outside entities. The RLS Form notification box is utilized to notify the customer of this potential release of information when the RLS Form is opened. These include CODIS, NFLIS, DHSS, ANAB, ABIS/WIN and agencies with IGA/ISAs. ISO 4.2.1

In instances where case related information is requested by a person who is not a primary or secondary customer the requestor should be referred to the appropriate contact for the requested information and no other case related information can be released. If **laboratory personnel** are unaware of the appropriate contact for a request the requestor should be directed to a **Discipline Supervisor** or **Top Management**.

Requests for any of the following shall be directed to **Top Management**:

- Requests for information from members of the press
- Freedom of Information Requests
- Legislative Requests

Information about all customers obtained from sources other than the customer shall be confidential between the customer and the Laboratory. The provider of the information shall be confidential to the Laboratory and shall not be shared with the customer, except as required by law. ISO 4.2.3

JUSTICETRAX LIMS-PLUS PORTAL AND EMAILED REPORT DISSEMINATION

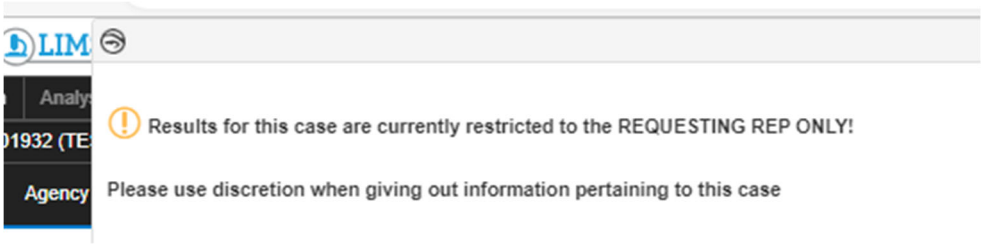
The testing laboratory utilizes automatic emailing of reports and JusticeTrax LIMS-Plus Portal for routine report dissemination.

Emailed reports are provided to all email addresses listed on the request for laboratory services form. Emails in addition to the requesting representative are added to the request CC list. Laboratory personnel may add additional emails to request CC list to automatically email a copy of the report at the time of release. Emails for people not with a primary or secondary agency shall not be added to the CC list unless written permission from the primary customer is retained in the case file.

Note: If the requesting representative is changed on a request the request CC list is also cleared. Laboratory personnel should make note of the request CC list prior to changing the requesting representative to ensure the CC list is repopulated after the change is made.

JusticeTrax LIMS-Plus Portal access is provided to members of agencies that have portal access through their portal login. All agencies added to the LIMS have access to reports in LIMS-Plus Portal (if the agency has portal access) and therefore have access to confidential information. The submitting agency is entered into JusticeTrax as the primary agency when a request is entered. The LIMS is automatically configured to assign the associated District Attorney and/or Prosecutor Office (secondary customers) based on the law enforcement agency being added. Except for changes to the responsible prosecutorial agency, no agency should be added to the agency list in the LIMS without written documentation from the primary agency and a record of this shall be recorded in the LIMS.

If the release of results needs to be restricted to only the primary agency or requesting representative, the laboratory can use the Result Release Security option to restrict access in LIMS Plus-Portal. Applying a restriction setting produces a warning pop-up when the case is opened as well as warning text next to the case number when viewing the case.



Result Release Security settings affect LIMS-Plus Portal access and the request's CC list as follows:

- Choosing Requesting Agency Only prevents agency representatives from other case agencies (e.g., the associated district attorney's office) from seeing request results in Portal. It also unchecks the Authorized box in the CC list for anyone who is from other case agencies. This means those unchecked will not receive the automated report email when the request is released.
- Choosing Requesting Rep Only prevents all other case agency representatives (even those within the same agency as the requesting representative) from seeing request results. It also unchecks the Authorized box in the CC list for everyone. The automated report will only go to the requesting rep when the request is released.

Any change to a case's Result Release Security (be it restricting or unrestricting) will be documented using the Result Release Restriction case activity. This activity will document the changes that were made, what prompted it, who performed it, and when it occurred. Permissions to this function in LIMS is restricted to **Discipline Supervisors** and **Top Management**.

TESTING TECHNICAL RECORD DISSEMINATION

After initial report dissemination, criminal justice practitioners may also request a copy of the report along with other supporting documentation as discovery. The intent of discovery is addressed under Alaska Rules of Criminal Procedure (Rule 16. Discovery). The contents of discovery are considered confidential and shall only be provided to agencies designated as primary or secondary customers. For more information on Discovery packets, Discovery Levels, and Discovery prompting events see Discovery.

METHODS OF DISSEMINATION

The State of Alaska Department of Public Safety requires Personal Identifying Information (PII) to be sent to external information systems in a manner that maintains the security of the information being disseminated. The State of Alaska E-mail system uses the prefix [secure] in the subject line of emails being sent to external information systems (i.e., police department agencies) to ensure that the PII enclosed in the email is secure.

Records not posted to the crime lab website will be disseminated via the State E-mail system to the recipient's agency e-mail address whenever possible. Records will not be emailed to personal email accounts.

In instances where the file size is too large to email, the state sponsored Alaska ZendTo program will be used instead.

Discovery packets disseminated to Department of Law will be uploaded to the NICE system using the link provided by Department of Law whenever possible (see NICE Portal for more information on NICE.)

If the recipient does not have an agency e-mail address, the records will be sent by US mail or picked up in person at the laboratory. In this situation, the format can either be hardcopy or digital media (e.g., USB drive, DVD, etc.)

VERBAL CASE INFORMATION DISSEMINATION

While all results are provided in a written report, laboratory staff may receive requests for case information via phone. Prior to providing any case related information over the phone, laboratory staff shall verify that the requestor is a primary or secondary customer in LIMS. Once the requestor is verified, case information that has previously been released in a written report or accompanying technical record can be provided over the phone. The record of this discussion shall be documented in the case activities.

If results have not been released and are still awaiting technical and/or administrative review the best course of action is to request the review be expedited. In instances of a high threat to public safety or when input is required from a primary or secondary customer on analysis, preliminary verbal results may be released upon approval of the **Discipline Supervisor**.

Preliminary results are defined as final testing results from analysis. Examples include: a source association or exclusion, identification of a controlled substance, or a quantitative result from toxicology testing. Case status updates are not considered preliminary results.

When preliminary verbal results are provided the following shall occur:

- The preliminary results are released by the authorizer of the results
- The authorizer must clearly indicate to the customer that the information is preliminary in nature, subject to change, and requires technical or administrative review
- The authorizer will document the release of information in the QA-Release of Preliminary Results case activity in the LIMS. The documentation shall include:
    - The information provided
    - The person the information was provided to
    - When the information was provided
    - Documentation of the **Discipline Supervisor** approval (an email is acceptable documentation)
- Once the results have been released the authorizer shall ensure a copy of the final report is provided to the person who received the preliminary verbal results

LAB ORGANIZATIONAL STRUCTURE AND DUTIES ISO 5.5B

The Laboratory Management System policies and procedures are outlined within the Quality Assurance Program and records associated with implementation are stored in the Quality Assurance Records.

The organizational chart demonstrates the management structure of ASCDL and its place within the Alaska Department of Public Safety. Each laboratory member is accountable to only one immediate supervisor per discipline. The organizational chart depicts the supervisory structure. ISO 6.2.5 d The organizational chart is maintained by the **Quality Assurance Manager** and the administrative staff. ISO 5.5a

The Laboratory Management System specifies the responsibilities and authority of all forensic personnel through position descriptions and competency memos. QAS 3.1.1.2, QAS 4.1.5

Top Management is composed of the **Chief**, **Assistant Chief**, and **Quality Assurance Manager**. **Top Management** has overall responsibility for the laboratory. ISO 5.2, QAS 4.1.1

Chief:

The **Chief (Forensic Science Laboratory Administrator 2)** reports directly to the Alaska Department of Public Safety, Division of Statewide Services. The **Chief** has full authority over the laboratory to include staff, budget, goals, and direction of the Laboratory and is responsible for administering, directing, and implementing the ASCDL forensic operations. The Chief is also responsible for ensuring proper funding for safety supplies and safety training at the laboratory. A full list of duties is available in the position description. AR 5.2.1

Assistant Chief:

The **Assistant Chief (Forensic Science Laboratory Administrator 1)** is responsible for exercising a substantial latitude of authority to act in the absence of the **Chief**. The **Assistant Chief** exercises full supervisory authority to coordinate and direct the day-to-day multi-discipline forensic investigation, testing, and analysis activities of the Laboratory through reporting of supervisors in their respective forensic disciplines and is responsible for assessing and providing recommendations of substantial weight to the **Chief** with regards to laboratory budgeting, staffing, training, and technological needs. The **Assistant Chief** reports directly to the **Chief**.

Quality Assurance Manager:

The **Quality Assurance Manager (Forensic Science Laboratory Administrator 1)** has the authority and obligation to ensure that the requirements of the Forensic Quality Assurance Program are implemented and maintained through scheduling, coordinating, and evaluating all aspects of the quality system including audits. The **Quality Assurance Manager** works with laboratory personnel to ensure compliance with accreditation requirements and to evaluate national standard documents for continuous improvement of the laboratory policies and procedures. The **Quality Assurance Manager** is the controller of all quality assurance records and is responsible for assessing and providing recommendations to the **Chief** and **Assistant Chief** with regards to laboratory accreditation needs. **The Quality Assurance Manager** reports directly to the **Chief**.

Key Management includes Top Management, Criminal Justice Planner, DNA Technical Manager, Discipline Supervisors, APD Forensic Supervisor, Evidence Supervisor, and the Safety Coordinator. **Key Management** duties include:

- Ensuring the policies and procedures outlined in the Quality Assurance Program are adequate to ensure the consistent application of activities and validity of results ISO 5.5c
- Providing laboratory personnel with the authority and resources necessary to carry out their duties ISO 5.6
- Communication with laboratory personnel through regular meetings, email communications, and written communications about changes to the Quality Assurance Program, effectiveness of laboratory operations, and need for improvements
- Communication with customers and other stakeholders to ensure the effectiveness of the laboratory operations.

DNA Technical Manager: QAS 4.1.2 QAS 5.2.5

The **DNA Technical Manager** manages the technical operations for the Biology Discipline and holds all the duties of the DNA **Technical Lead**. The **DNA Technical Manager** is responsible for evaluating all DNA methods and software used by the Laboratory and for proposing new or modified analytical procedures to be used by the analysts. The **DNA Technical Manager** is also specifically responsible for review and approval of the following for the Forensic Biology discipline:

- Procedures
- Validations and methods
- Modifications to methodology

- Academic transcripts and qualifications of analysts, technicians, and technical reviewers
- Training programs of analysts, technicians, and technical reviewers
- Technologies
- Technical specifications of outsourcing agreements
- Potential conflicts of interest of contract employees employed by multiple NDIA participating or vendor laboratories
- Internal and external DNA audit documents
- Proficiency testing program
- Quality assurance program
- Quality assurance reviews resulting in corrective or preventative actions

The **DNA Technical Manager** has the authority to suspend and resume analytical activity (**Top Management** must be notified as soon as possible when analytical activity has been suspended). The **DNA Technical Manager** reports to the **Assistant Chief**.

Discipline Supervisors (Forensic Scientist 4):

Discipline Supervisors have overall responsibility for the technical operations and the resources necessary to ensure quality forensic laboratory operations. **Discipline Supervisors** are responsible for the following in their respective disciplines:

- Recruitment, hiring and training of new employees
- Approving time sheets/leave requests for direct reports
- Evaluating interpersonal skills and tracking performance metrics of direct reports
- Case management for the disciplines under their supervision
- Ensuring discipline manuals are reviewed according to laboratory standards
- Tracking spending and approving purchases within the limits of their authority
- Ensuring work conditions, equipment, and procedures are adequate to protect health and safety
- Evaluation of risk, documentation, and monitoring of Quality Assurance Reviews in their discipline
- Ensuring discipline procedures contain relevant safety information and that staff are aware of these hazards
- Ensuring employees under their supervision know and comply with proper safety procedures and rules.

Discipline Supervisors have the authority to suspend analytical activity pending review and approval by a member of **Top Management**. The **Discipline Supervisors** report directly to the **Assistant Chief** or the **DNA Technical Manager**. The **APD Forensic Supervisor** fits in this category for laboratory purposes.

Scientific Director of Blood and Breath Alcohol Program:

The **Scientific Director** of the breath and blood alcohol testing program is responsible for all aspects of the statewide breath and blood testing program including selection and certification of breath test instruments, certification of breath test operators and breath test supervisors, and implementing and safeguarding the scientific integrity of the breath and blood alcohol program. The role of Scientific Director of the Blood and Breath Alcohol Program is written into the position description of the **Chemistry Discipline Supervisor**. The **Scientific Director** role holds all the duties of the **Discipline Supervisor** and **Technical Lead** for blood and breath alcohol.

The **Scientific Director** has the authority to suspend analytical activity pending review and approval by a member of **Top Management**. The **Scientific Director** is appointed by the Commissioner of the Department of Public Safety. This designation is indicated on the organizational chart.

Evidence Supervisor (Criminal Justice Specialist):

The Evidence Supervisor has overall responsibility for the operations and resources necessary to ensure the proper function of the evidence room and evidence staff. The Evidence Supervisor is responsible for the following in the evidence section:

- Recruitment, hiring and training of new employees
- Approving time sheets/leave requests for direct reports
- Evaluating interpersonal skills and tracking performance of direct reports
- Ensuring evidence manuals are reviewed according to laboratory standards
- Tracking spending and approving purchases within the limits of their authority
- Ensuring work conditions, equipment, and procedures are adequate to protect health and safety
- Evaluation of risk, documentation, and monitoring of Quality Assurance Reviews in evidence

The **Evidence Supervisor** reports to the **Quality Assurance Manager**.

Safety Coordinator:

The **Safety Coordinator** is designated by the **Chief**. This designation is indicated on the organizational chart. The **Safety Coordinator** oversees the safety program of the Laboratory and ensures that it is implemented and always followed. The **Safety Coordinator** provides educational opportunities in the areas of biological/chemical spill control, evacuation procedures, and hepatitis vaccination to laboratory personnel. The **Safety Coordinator** or a designee manages the chemical inventory of the laboratory. The **Safety Coordinator** may develop a safety committee to assist with the program.

The general duties of other laboratory positions and roles is described below. Position descriptions are available to provide more detailed descriptions of individual laboratory staff positions.

Discipline Technical Leads:

Discipline **Technical Leads** serve as a technical advisor for the **Discipline Supervisor**. Duties **Technical Leads** may be asked to perform include:

- Writing technical content of manuals
- Working with the **Discipline Supervisors** to ensure that control measures are appropriate and being followed
- Managing the performance of method development, validations, and verifications
- Technical training of new analysts
- Reviewing and evaluating proficiency test results
- Preparing and reviewing performance monitoring for the discipline
- Participating and providing input in the Quality Assurance Review process

Technical Leads have the authority to suspend analytical activity pending review and approval by a member of **Top Management**. The **Technical Leads** report to the **Discipline Supervisors**. Recommendations for **Technical Lead**

appointment will come from the **Discipline Supervisor** and are approved by the **Assistant Chief**. This designation is indicated on the organizational chart and memos are kept in the quality assurance records.

CODIS Administrator/Alternate CODIS Administrator: QAS 4.1.3, QAS 5.3.4

The **CODIS Administrator** and **Alternate CODIS Administrator** are the central points of contact for CODIS operations in the laboratory. Duties of the **CODIS Administrator/Alternate CODIS Administrator** include:

- Administering the laboratory's local CODIS network
- Scheduling and Documenting the CODIS computer training of analysts
- Ensuring the security of data stored in CODIS is in accordance with state and/or federal law and NDIS operational procedures
- Ensuring that the quality of data stored in CODIS is in accordance with state and/or federal law and NDIS operational procedures
- Ensuring that matches are dispositioned in accordance with NDIS operational procedures.
- Reviewing all non-administrative discrepancies in proficiency tests that affect the typing results or conclusions.

Additional information on **CODIS Administrator/Alternate CODIS Administrator** duties is provided in the CODIS Administrative Manual. The **CODIS Administrator/Alternate CODIS Administrator** has the authority to terminate an analyst's or laboratory's participation in CODIS until the reliability and security of the computer data can be assured in the event an issue with the data is identified (**Top Management** must be notified as soon as possible when CODIS entry has been suspended). The laboratory shall not upload data to NDIS if the **CODIS Administrator** position is vacant. This designation is indicated on the organizational chart.

NIBIN Program Administrator

The **NIBIN Program Administrator** duties and authorities for the role are outlined in the Minimum Required Operating Standards for National Integrated Ballistic Information Network (NIBIN) Sites. **Top Management** designates who will be the **NIBIN Program Administrator** at the ASCDL. This designation is indicated on the organizational chart.

LIMS Administrator

The **LIMS Administrator** is the primary point of contact for the JusticeTrax LIMS system. Duties of the **LIMS Administrator** include:

- Administering the laboratory's LIMS System
- Setting security and permission roles for the laboratory LIMS System
- Coordinating JusticeTrax Upgrades and Validations
- Updates of Report Templates, Custom Forms, and other LIMS customization

Criminal Justice Planner

The **Criminal Justice Planner** works closely with **Top Management** to coordinate short- and long-term projects related to legislation, the legal community, external stakeholders, and sexual assault kit tracking.

Forensic Scientist (also includes APD Crime Lab Technician and Identification Technician positions)

The Forensic Scientist job class primary role is the scientific analysis of evidence collected during criminal investigations. Duties of the Forensic Scientist include:

- Scientific analysis of evidence in criminal cases
- Testimony
- Participation in method validation tasks
- Training of external stakeholders

Program Coordinator

The Program Coordinator leads the Sexual Assault Forensic Evidence-Inventory, Tracking and Reporting (SAFE-ITR) program. Duties include:

- Planning, developing, coordinating and overseeing the SAFE-ITR project
- Managing the day-to-day operation of the SAFE-ITR project
- Managing the Forensic Science Hit Outcome Program project (FSHOP)

Forensic Technician (also includes APD Crime Lab Technician position)

The Forensic Technician role in the laboratory varies depending on the discipline to which they are assigned but can include the following duties:

- Evidence handling and transport to the disciplines
- Administrative and maintenance support functions for the disciplines
- Crime scene response
- NIBIN entry
- Generate test fires for NIBIN Entry
- Performing laboratory activities in the breath alcohol discipline

Criminal Justice Technician

The Criminal Justice Technicians are the primary evidence room staff. Their duties include:

- Customer service for evidence drop off and returns
- Logging and handling all evidence received by the laboratory
- CODIS Accessioning
- Evidence inventory and special projects

Administrative Assistant

The administrative section of the crime lab manages the administrative needs of the laboratory. Their duties include:

- Customer Service for the laboratory main entrance and phone calls
- Payroll
- Financial Reporting
- Procurement
- Travel processing

- Recruitment
- Tracking and monitoring grant budgets
- Tracking and monitoring laboratory budgets

Maintenance Specialist

The maintenance specialist positions are responsible for the maintenance and support of the laboratory facilities and grounds. These duties can include:

- Grounds maintenance and snow clearing
- Monitoring and repair of building security and automation systems
- Coordinating and working with contractors for laboratory projects
- General maintenance needs of the laboratory facility

PERSONNEL

MINIMUM QUALIFICATIONS/EDUCATION REQUIREMENTS

The State of Alaska education and experience requirements for all positions employed by ASCDL are available online via the Workplace Alaska website under Job Class Specifications. ISO 6.2.2, QAS 5.1.1 The position descriptions (PD) explain the duties, functions, and tasks for each job and are maintained by the administrative support personnel. ISO 6.2.4

The laboratory uses the date of hire/appointment/promotion for determining the applicable version of the FBI Quality Assurance Standards for education, experience, and training requirements. QAS 4.2

The Laboratory follows the State of Alaska Department of Administration Personnel and Labor Relations Standard Operating Procedures for the selection of personnel and retains the records according to State of Alaska 2 AAC 07.113. Anchorage Police Department hires laboratory employees under the agreements set forth in the MOUs for the positions specified. ISO 6.2.5 b

The **Quality Assurance Manager** retains educational qualification records in the Quality Assurance Records. Records of the **DNA Technical Manager** review of educational records are kept in SharePoint.

The **Chief (Forensic Science Laboratory Administrator 2)** shall possess a bachelor's degree from an accredited college in natural science or physical sciences, forensic sciences, criminalistics, chemistry, biochemistry, genetics, biology, microbiology, physics, computer analysis, forensic sciences, or a closely related field.
And either
One year of experience as a Forensic Science Laboratory Administrator 1;
Or
Eight years of progressively responsible professional experience in a forensic laboratory performing casework in a relevant ANSI National Accreditation Board (ANAB) accredited discipline that includes a combination of the detection, testing, and analysis of physical evidence related to criminal cases; interpretation and reporting of testing results; and/or provision of related expert testimony in courts of law. Two years of this experience must have been in a supervisory or leadership role.

Assistant Chief (Forensic Science Laboratory Administrator 1) and **Quality Assurance Manager (Forensic Science Laboratory Administrator 1)** shall possess a bachelor's degree from an accredited college in natural science or physical sciences, forensic sciences, criminalistics, chemistry, biochemistry, genetics, biology, microbiology, physics, computer analysis, forensic sciences, or a closely related field.
And
Seven years of progressively responsible professional experience in a forensic laboratory performing casework in a relevant ANSI National Accreditation Board (ANAB) accredited discipline that includes a combination of the detection, testing, and

analysis of physical evidence related to criminal cases; interpretation and reporting of testing results; and/or provision of related expert testimony in courts of law. Two years of this experience must have been in a supervisory or leadership role.

The **DNA Technical Manager** shall possess a master's degree from an accredited college in biology, chemistry, or forensic science and shall meet all the educational, experience, and training requirements of the Quality Assurance Standards for Forensic DNA Testing Laboratories and Quality Assurance Standards for DNA Databasing Laboratories. QAS 5.2.1, QAS 5.2.2

And
Four years of work experience as a Forensic Scientist, of which at least three years is at the Forensic Scientist 3 level in the DNA discipline with the State of Alaska or equivalent with another employer.

The **CODIS Administrator** shall possess the minimum education, experience, and training requirements of the Quality Assurance Standards for Forensic DNA Testing Laboratories and Quality Assurance Standards for DNA Databasing Laboratories. QAS 5.3

The **NIBIN Program Administrator** shall meet the minimum qualification of the role outlined in the Minimum Required Operating Standards for National Integrated Ballistic Information Network (NIBIN) Sites.

To be appointed as discipline **Technical Lead** the forensic scientist shall have a minimum of one year of independent casework in the discipline, successfully complete one external proficiency test in the discipline, and be authorized for Development, Modification, Verification and Validation of Methods in all aspects of the scope of accreditation for that discipline. Recommendations for **Technical Lead** appointment will come from the **Discipline Supervisor** and are approved by the **Assistant Chief**. This designation is indicated on the organizational chart and memos are kept in the quality assurance records.

The **Scientific Director** of the blood and breath alcohol program must hold at least a bachelor's degree, with a major in chemistry or a physical science field. In addition, the **Scientific Director** must have specialized knowledge in the field of forensic alcohol testing. The **Scientific Director** is the **Technical Lead** of the blood and breath alcohol disciplines and therefore must meet the same requirements as a **Technical Lead**. The **Scientific Director** is appointed by the Commissioner of the Department of Public Safety.

Personnel who authorize results, opinions or interpretations in the Biology discipline shall possess a baccalaureate or an advanced degree in a natural science or a closely related field and shall meet the educational, experience, and training requirements of the Quality Assurance Standards for Forensic DNA Testing Laboratories and Quality Assurance Standards for DNA Databasing Laboratories. AR 6.2.2.1, QAS 5.4

Personnel who authorize results, opinions or interpretations in the in the Seized Drugs discipline shall possess a baccalaureate or an advanced degree from an accredited college in natural science, physical science, forensic sciences, criminalistics, or a closely related field AR 6.2.2.1.

Personnel who authorize results, opinions or interpretations in the in the Toxicology discipline shall possess a baccalaureate or an advanced degree from an accredited college in natural science, physical science, forensic sciences, criminalistics, or a closely related field AR 6.2.2.1.

Personnel who authorize results, opinions or interpretations in the in the Firearms and Toolmarks, Friction Ridge, and Impressions disciplines shall possess a baccalaureate or an advanced degree from an accredited college which included 18

semester hours or 27 quarter hours of science courses in the areas of chemistry, biology, physics, computer analysis, forensic sciences, or criminalistics [AR 6.2.2.1].

Personnel who authorize results, opinions or interpretations in the Scene Investigation discipline shall possess an Associate of Science degree from an accredited college in criminalistics, criminology, or a natural or physical science.
Or
Two years of post-secondary education from an accredited college that includes at least 18 semester hours or 27 quarter hours in physical science courses such as chemistry, biology, physics, or criminalistics that included laboratory work.
Substitution:
Paraprofessional laboratory experience involving any combination of: the receipt, preparation, and disposal of specimens for testing; conducting routine tests; maintaining and calibrating laboratory equipment; performing quality control on equipment, solutions, and reagents; and maintaining operational supplies and materials may substitute for the requisite education on a month-to-month basis (1 month experience equals 2.67 semester or 4 quarter hours) [AR 6.2.2.1].

Forensic Technicians and Criminal Justice Technicians working as technical support in any discipline shall meet the educational requirements specified in the job description.

Laboratory employees hired by an agency other than ASCDL will meet the requirements set forth in the MOU.

LABWIDE TRAINING

NEW EMPLOYEE TRAINING PROGRAM

All **laboratory employees** should complete the New Employee Training Program (NETP) within 90 days of their start date. The NETP includes topics in:

- General Laboratory Safety
- Administrative tasks
- Laboratory Technology
- Quality Assurance
- General Knowledge of Forensic Science [AR 6.2.2.2 b]
- Ethical Practices in Forensic Science [AR 6.2.2.2 c]
- Criminal Law, Civil Law, and Testimony [AR 6.2.2.2 d]

The administrative section will be modified for laboratory employees hired by an agency other than the State of Alaska. Administrative or maintenance positions may participate in a modified NETP when indicated on the NETP packet by the **Quality Assurance Manager**.

NETP records are retained in the Quality Assurance Records.

SAFETY TRAINING

NEW EMPLOYEES

All new employees to ASCDL will receive initial health and safety information as part of the NETP. The orientation includes successful completion of online Bloodborne Pathogen training, Fire Extinguisher training, and Firearms handling training. The **Discipline Supervisor or designee** will provide specialized safety training, as needed. Bloodborne Pathogen training

and discipline specialized safety training will be completed before the new employee begins laboratory work assignments. Firearms handling training will be completed prior to beginning work assignments that involve handling firearms.

Employees transferring to a new laboratory discipline must receive any discipline specific safety training for that new work discipline. The training will be completed before the employee begins work assignments. The **Discipline Supervisor or designee** will provide this training.

RECURRING SAFETY TRAINING

Bloodborne Pathogen and Fire Extinguisher training are required annually for all **laboratory employees**. Hands-on Fire Extinguisher training may be provided every other year. This training will be pre-scheduled and provided through the Laboratory and/or an approved vendor at no cost to the employee.

First Aid, AED and CPR training are also available for **laboratory employees** by an approved vendor at no cost to the employee.

At a minimum, the laboratory will practice evacuation procedures on an annual basis. During an evacuation procedure, all laboratory employees should exit the building in a timely manner and congregate at the employee parking lot. A laboratory employee will take a head count using the Emergency Clipboard to ensure all employees are present or accounted for. The laboratory building may be re-entered when the **Chief or Safety Coordinator** deems the building safe to re-enter. Records are stored in the Safety and Facilities Library in SharePoint.

Laboratory employees are required to complete the Employee Health and Safety Audit Checklist annually to familiarize themselves with the laboratory safety equipment and procedures. Responses from this checklist are used to identify additional safety refresher training needed. Refresher training may be provided at monthly laboratory staff meetings as required.

If an employee has concerns regarding the efficacy of the content or extent of the safety training, this matter should be brought to the attention of the **Discipline Supervisor** or the **Safety Coordinator**.

DISCIPLINE TRAINING PROGRAMS

Each **Scientific Discipline and Evidence** will have a formal training program used to train individuals in the knowledge, skills, and abilities to perform all aspects of the position held. [6.2.2, AR 6.2.2.2] The components of the training program are documented in a training manual. The **DNA Technical Manager**, **Discipline Supervisors**, **Discipline Technical Leads**, and **Evidence Supervisor** are responsible for the content of training programs and ensuring the competency of all personnel that operate equipment and instrumentation or perform laboratory activities. The **DNA Technical Manager**, **Discipline Supervisor** in cooperation with the **Discipline Technical Lead**, and **Evidence Supervisor** are responsible for determining the competency requirements for personnel in their respective disciplines. [ISO 6.2.3]

Competent laboratory staff may serve as instructors or training mentors as deemed appropriate by the **DNA Technical Manager, Discipline Supervisor, or Evidence Supervisor**.

Training programs may consider any past training or work experience an individual may possess. The **DNA Technical Manager, Discipline Supervisor, Technical Lead, or Evidence Supervisor** will evaluate the prior experience and document any changes to the training program based on the relevant substitutions. This documentation must be present in the training record.

TRAINING PROGRAM CONTENT

Training Manuals for all **discipline and evidence staff** shall include:

- Syllabus and Learning Objectives
- Trainee Requirements and Performance Goals
- References to training videos, webinars, literature, and other training materials. References that can be maintained electronically will be stored in the Literature and Training Material Document Library so that they can be readily retrieved by the trainee
- References to relevant Validations, Verifications, and other Records (The preferred method for including references to laboratory records is to include a hyperlink to the relevant document library/location to ensure trainees know where to access the records for future reference.)
- Training on the full range of assigned duties
- Observation of experienced staff
- Demonstration of the appropriate use of equipment
- A method of determining competence for tasks which must be completed prior to performing the duties independently (for testing and calibration activities see below)
- Discussion on deviations from procedure and their significance ISO 6.2.3
- A method of determining when and who signed the staff member off on a specific task

In addition to the above list **laboratory staff that perform testing or calibration activities** must have the following included in their training program:

- Examination of mock samples covering the range of assigned duties and components of testing or calibration QAS 6.1.2
- A practical competency exam covering the range of assigned duties (must be completed prior to authorization to perform task independently) AR 6.2.3.1

In addition to the above list **laboratory staff that issue laboratory reports** must have the following included in their training program:

- Mock test reports demonstrating the ability to properly convey results and conclusions, express opinions or an interpretation, and their significance.
- Training on the components of the technical review process and self-review (the analyst is not required to be authorized for technical review at this point) QAS 6.1.3.1
- A written examination demonstrating the individual's knowledge of the discipline or components of testing, and tasks performed.
- An oral examination (technical discussion) demonstrating the individual's ability to communicate technical knowledge in the discipline. QAS 6.1.4
- Discipline and lab wide specific testimony training (see Testimony Training Program)QAS 6.1.4

The New Employee Training Program and Testimony Training Program contain core training elements for forensic science.

Discipline training programs shall include the following discipline-specific elements:

- History and basic theory of the discipline
- Relevant literature

- Human-factors affecting analysis
- Nature and properties of examined evidence type and forms in which it may be submitted.
- Evidence handling techniques
- Methodologies and validation studies, to include method limitations
- Instrumentation and performance monitoring
- Statistics and probability (uncertainty, population inferences, etc)
- Interpretation
- Documentation
- Reporting
- Relevant knowledge about related-fields

TRAINING CASE CREATION

Prior to being authorized, trainees shall not perform work on test or calibration items, even under the supervision of an authorized staff member. Training programs shall be designed to either use mock or training samples for all work prior to authorization.

When training cases are being created within the LIMS system the following naming conventions will be used.

The submitting agency for all training cases will be Scientific Crime Detection Laboratory and agency case numbers will use the format: **Agency Case Number = TR-lastnamefirst initial-disciplinesuffix.**

Discipline	Suffix
Blood Alcohol	BA
Seized Drugs	SD
Friction Ridge	FR
Footwear Impressions	FI
Firearm/Toolmark	FA
Forensic Biology	FB
Crime Scene	CS

Example: TR-DOEJ-SD would be the seized drug training case for John Doe*

* If multiple training cases are desired, a suffix such as -1, -2, etc. can be added to the agency case number for the newly created cases (TR-DOEJ-SD-1).

A system generated lab number should be used after creating the case using the agency case number.

ASSESSMENT/FEEDBACK

Periodic assessment and feedback will be incorporated in all training programs. Mechanisms of assessment can include, written examinations, writing assignments, practical examinations, intermediate technical discussions, intermediate mock trials, and other methods as deemed appropriate by the **DNA Technical Manager**, **Discipline Supervisor**, or **Evidence Supervisor.**

The following table outlines the components of the two oral assessments that should be used to prepare analysts for final technical discussions and final mock trials:

Activity	Purpose	Occurrence	Attendees	Participants	Role Playing	Location	Communication Level
Intermediate Technical Discussion	Assess technical knowledge verbally during a training program. Coaching session.	Various milestones within a training program	Supervisor and/or lead trainer. Other discipline members possible.	Discipline staff members	None	Conference Room	Scientist
Intermediate Mock Trials	Assess ability to answer court questions. Should thoroughly cover topics and prepare trainee for final mock trial.	Various milestones within a training program	Supervisor and/or lead trainer. Other discipline members possible.	Discipline staff members	Lab Staff playing attorneys	Conference Room	Layperson

All written and practical examinations within training programs will have the passing criteria specified in the training program or on the examination provided to the trainee and a key indicating the appropriate response(s)/ known results will be created prior to the exam being administered. AR 6.2.2.2 g

TESTIMONY TRAINING PROGRAM

All **laboratory employees that issue testing or calibration reports** will have testimony training as a component of their training program. The topics that shall be covered include preparation for responses to the following topics:

- Analyst training and education
- Evidence receipt/handling within the laboratory and discipline
- Laboratory accreditation/quality assurance program
- National standards
- National reports that speak to discipline admissibility
- Explanation of testing procedures
- Reasons we don't test items
- Relevant laboratory policies
- Quality assurance procedures in testing
- Impartiality
- Additional relevant topics associated with the discipline

Testimony training shall include the following:

- Training in appropriate scientific communication including using lay terminology, use of analogies, preparation of charts or demonstrative aids.
- Common terminology associated with court proceedings
    - Notice of Expert (NOE)
    - Grand Jury

  - Evidentiary Hearing
  - Bench Trial
  - Jury Trial (misdemeanor vs felony)
- The role of the expert witness in the courtroom (educate the jury, appropriate demeanor, speak to the jury, how to deal with yes or no questions, referencing notes)
  - Educate the jury
  - Speak to the jury
  - Courtroom demeanor
  - Appropriate attire
  - Handling yes or no questions
  - Referencing notes
  - What to do if you know someone on the jury

Testimony training shall include multiple sessions that include opportunities for the trainee to practice providing court-appropriate responses.

Testimony training should include witnessing experienced analysts testify whenever possible (testimony witnessing may include analysts from other disciplines.)

Testimony training will conclude with a final mock trial. The following table outlines the expectations for final mock trials.

Activity	Purpose	Occurrence	Attendees	Participants	Role Playing	Location	Communication Level
Final Mock Trial - Initial	Give realistic experience of what it is like to testify in court. Assess testimony skills. Not intended to cover all court topics but a random selection to better simulate real casework testimony.	End of first training program	Representative sample of all lab staff, a member of top management	Attorneys	None	Courthouse (heavily encouraged)	Layperson
Final Mock Trial - Supplemental	Give realistic experience of what it is like to testify in court. Assess testimony skills. Not intended to cover all court topics but a random selection to better simulate real casework testimony.	End of any supplemental training programs	Representative sample of all lab staff, a member of top management	Attorneys	None	Conference Room or Courthouse (if does not cause delays)	Layperson

For information on testimony monitoring see Testimony Monitoring and for more information on interaction with the Court System see Interactions with the Court System.

SUPPLEMENTAL TRAINING

When an analyst who was previously authorized in a discipline is to be authorized in a new or additional method within the current authorization the analyst shall be required to complete training on the new method. Prior to performing the method on testing or calibration items the analyst shall complete a practical competency exam.

RETRAINING

On occasion it may be determined that an analyst requires retraining or demonstration of competency in a previously authorized area. Examples could include a lapsed competency, quality issues, or significant time off casework. Discipline Procedure Manuals shall document when retraining due to extended absence is required for the discipline.

When retraining is deemed necessary, a specific plan for that individual will be developed by the **Discipline Supervisor** in collaboration with the **DNA Technical Manager or Technical Lead,** as appropriate, and the **Quality Assurance Manager**. This plan would include at a minimum the scope of the retraining required, a plan of action to accomplish the retraining, and the trainer(s) assigned. Any retraining or competency testing performed will be documented. AR 6.2.2.2

DISCIPLINE TRAINING PROGRAM RECORDS

All components of the training program will be documented and retained in the training records for that individual (training cases may be retained in the same method as technical records for the discipline). Training records for new methodology within a discipline may be kept with the validation records for the new methodology or as described above.

AUTHORIZATION FOR INDEPENDENT WORK

Authorization of **laboratory staff** for tasks that are not considered testing or calibration activities is provided by the **Discipline Supervisor, DNA Technical Manager, or Technical Lead** and is documented in the training program records. Examples of tasks that do not fall under testing or calibration activities may include performance checks of equipment, preparation of reagents, evidence room functions, or administrative functions in a discipline.

Testing or calibration activities include any task that is performed on a test or calibration item. These activities require an authorization memo prior to **laboratory staff** performing independent work. Authorization for tasks may be provided at the end of an entire training program or at the completion of a module for a specific task; however, prior to authorization all competency requirements must be completed for the tasks associated with the authorization.

The **Chief or Assistant Chief** shall authorize an individual to authorize reports and express opinions or interpretation. After the successful completion of a training program the **DNA Technical Manager or Discipline Supervisor** will compose a memo to the **Quality Assurance Manager** outlining the following:

- A summary of the training program components including any testimony training and final competency exams
- The components from the current scope of accreditation for which the authorization is applicable
- The tasks from ANAB GD 3152 that are included in the authorization
- Any additional clarification or limitations to the authorization

Upon receipt of the memo, the **Quality Assurance Manager** will review the training program records and competency documentation and issue a memo to the **Chief and/or Assistant Chief** recommending authorization in the scope components and tasks recommended by the **DNA Technical Manager or Discipline Supervisor**. The date of the authorization for independent work is the date that the memo is signed by either the **Chief or Assistant Chief**.

Authorization to perform testing or calibration tasks other than report authorization and expressing opinions and interpretations shall come in the form of a memo, including the components listed above, from the **DNA Technical Manager or Discipline Supervisor** to the **Quality Assurance Manager**. The date of the authorization of independent work is the date of the memo from the **DNA Technical Manager or Discipline Supervisor**.

Authorization memos are retained by the **Quality Assurance Manager** in the Quality Assurance Records.

MENTORED CASEWORK

Newly authorized analysts should be mentored by other competent analysts after authorization.

Discipline training programs shall define mentorship requirements for trainees newly authorized for independent work. Disciplines can consider the level of mentorship required (if at all) based on the scope of the authorization and prior experience of the analyst; however, all analysts must have a mentorship period the first time they are authorized to perform independent casework and authorize reports in a discipline.

TECHNICAL REVIEWER TRAINING REQUIREMENTS

All personnel who perform technical review of reports must be currently or previously competent in the discipline and have completed a practical competency exam for the testing or calibration tasks being reviewed. AR 6.2.3.2

In addition, all personnel who perform technical review must have received training on the current procedures and case documentation requirements. This will include reading all relevant discipline procedure manuals and lab wide manuals.

Technical reviewers in Forensic Biology shall meet all requirements outlined in the FBI Quality Assurance Standards for Forensic DNA Testing Laboratories and the FBI Quality Assurance Standards for DNA Databasing Laboratories

TRAINING PROGRAM FEEDBACK

Training programs are periodically reviewed as defined in controlled document Revision Requirements. During the revision process, feedback on training program improvements will be solicited from discipline personnel.

CONTINUING EDUCATION

Key Management is responsible for ensuring **laboratory staff** have access to training and continuing education necessary for maintenance of knowledge, skills, and abilities.

Identifying training needs or continuing education opportunities, providing this training to personnel, and evaluating the effectiveness is the responsibility of the **Discipline Supervisors**. **Discipline Supervisors** can identify training needs through one-on-one conversation with their discipline members, during discussions of performance evaluations, and in discipline meetings. Additionally, **Discipline Supervisors** should discuss training opportunities with staff and encourage participation in professional organizations, certification, becoming technical assessors, and participation in external assessments.

The ASCDL funds membership dues to one professional organization for ASCLD **laboratory personnel**. Additionally, **Key Management** will provide opportunities for attendance at external trainings and conferences whenever possible and appropriate to ensure the best utilization of personnel resources.

CONTINUING EDUCATION REQUIREMENTS

All **proficiency tested analysts** shall average 16 hours per year over a 3-year cycle of continuing education as outlined in Standard Practice for Forensic Science Practitioner Training, Continuing Education, and Professional Development Programs.

Each competency tested **Forensic Scientist performing DNA analysis** must meet the hours of continuing education required by the FBI Quality Assurance Standards for Forensic DNA Testing Laboratories and the FBI Quality Assurance Standards for DNA Databasing Laboratories each calendar year.

All **laboratory staff** should be provided continuing education and training as appropriate and necessary for their duties.

Discipline Supervisors, the **DNA Technical Manager**, and **Top Management** will determine the types of seminars and materials that qualify as continuing education. Continuing education that is counted toward the 16 hours from the Standard Practice for Forensic Science Practitioner Training, Continuing Education, and Professional Development Programs shall be structured, measurable, and documented. Criteria for these components are listed below.

Structured (must meet one or more of the following components):

- Written goals and objectives
- Subject matter expert instructors
- Written syllabus or program description
- Quantifiable elements such as CEUs, academic credits, number of hours or points

Measurable (must meet one or more of the following):

- Oral exams or reports
- Written exams or reports
- Amount of time performing the training activity
- Instructor or presenter evaluations
- Practical exercises with emphasis on those that reflect real casework situations
- Observation of technical performance
- Criteria for passing tests

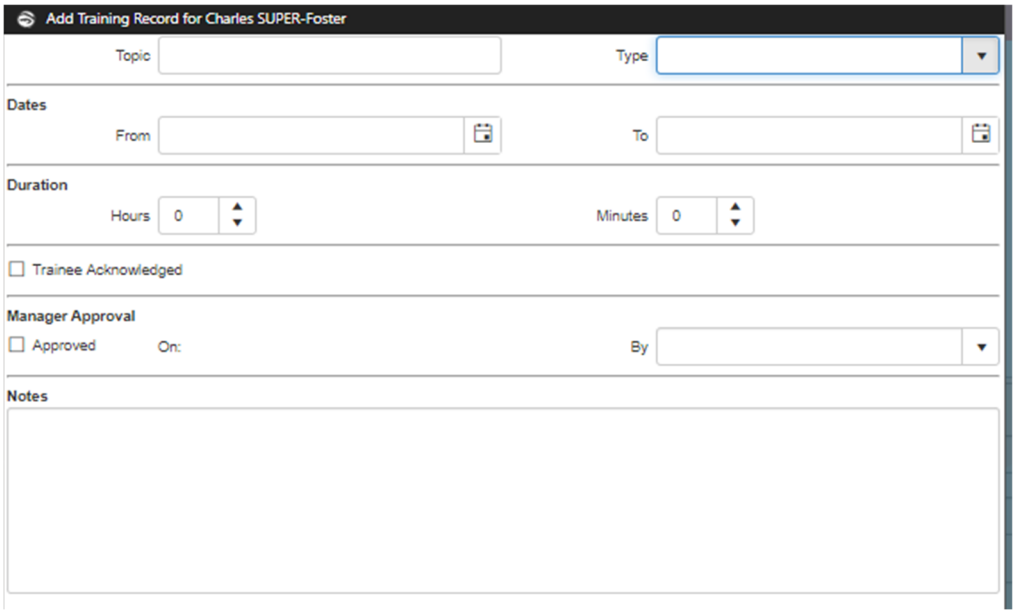
Documentation (must meet one or more of the following):

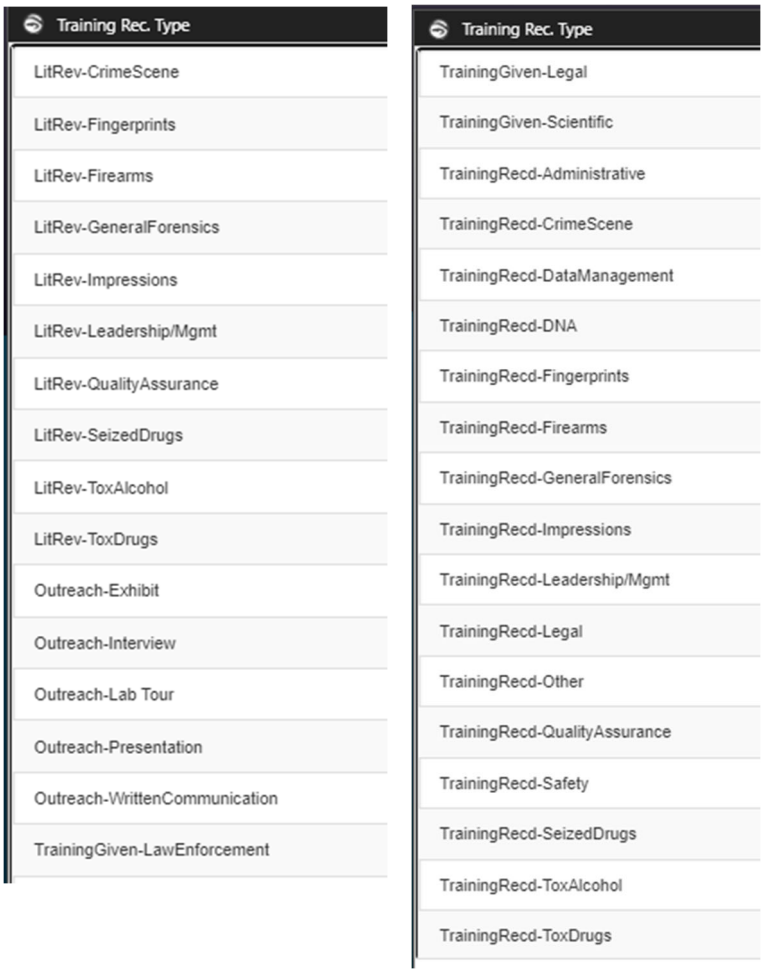
- Issuance of a certificate of completion or a diploma
- Publishing a paper
- Verification of attendance
- Recording of presentation or exercise

If literature review is to be counted toward the continuing education hours the Discipline Procedure Manual must outline a procedure for the review of scientific literature to meet the continuing education and professional development requirements.

CONTINUING EDUCATION RECORD RETENTION

The Training Records utility in the LIMS will be used to track continuing education and training not related to laboratory training programs. The exception to this requirement is Forensic Biology Literature Reviews. The attendance for these literature reviews is documented in the meeting minutes where the literature was presented. This Training Record utility is also used to document training given and outreach; however, these categories are not used to meet continuing education requirements. Below is a screenshot of the training record utility and the training type dropdown options.

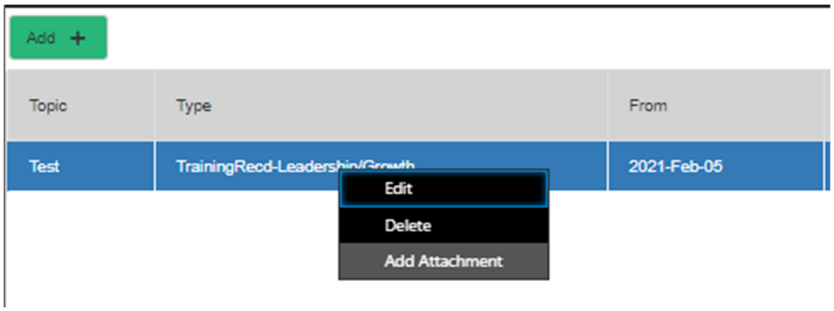




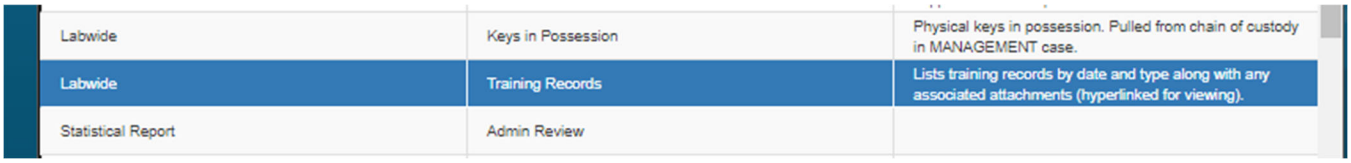
The training given subcategories indicate the audience who received the training whereas the training received subcategories indicate the subject matter of the training.

Associated documents related to a specific training will be stored in the training records entry. An exception to this is the actual articles associated with a literature review. These will not be uploaded as an attachment to the training record; instead, they will be stored in the Continuing Education and Training SharePoint document library.

Attachments are added by right clicking the entry and selecting Add Attachment:



A Crystal Report is available for staff that lists training records along with hyperlinks to each associated attachment:



Labwide	Keys in Possession	Physical keys in possession. Pulled from chain of custody in MANAGEMENT case.
Labwide	Training Records	Lists training records by date and type along with any associated attachments (hyperlinked for viewing).
Statistical Report	Admin Review	

Laboratory personnel receiving continuing education or training are responsible for completing training in a satisfactory and professional manner and will complete an evaluation of the training received. This evaluation shall be documented in the notes of the associated training record in the LIMS and can be used by the **Discipline Supervisor** to determine the effectiveness of the training for future attendees.

The **Discipline Supervisors** shall review continuing education records for their direct reports annually, during performance evaluations, to ensure staff are meeting the continuing education requirement. Continuing education is also reviewed during discipline quarterly metrics reviews with **Top Management**.

The **DNA Technical Manager** is responsible for ensuring all Forensic Scientists performing DNA Analysis meet the hours of continuing education required by the FBI Quality Assurance Standards for Forensic DNA Testing Laboratories and the FBI Quality Assurance Standards for DNA Databasing Laboratories each calendar year.

The Supervisory Guidance Document (Trainings and Conferences) contains more information this topic.

PERFORMANCE MONITORING PROGRAM

The performance monitoring program is a mechanism used by the laboratory to monitor the performance of individuals and ensure continued proficiency in areas where authorizations have been granted as well as monitor the performance of the laboratory's procedures and methods by comparing results with those of other laboratories.

The Performance Monitoring Program uses both proficiency testing and performance monitoring plans to monitor performance of individuals and discipline procedures.

PROFICIENCY TESTING

The laboratory utilizes proficiency testing as a mechanism to monitor both the performance of the individual completing the test and the Laboratory's performance by comparison of results with other laboratories.

To ensure the methods and procedures utilized by the laboratory are acceptable and provide comparable results to other laboratories at least one external proficiency test will be completed each year for each discipline of forensic science in which the Laboratory provides service [ISO 7.7.2, AR 7.7.2.1]. Laboratory personnel will perform proficiency tests by utilizing the same test methods, technical review, verification, and administrative review procedures as are normally applied to casework. [AR 7.7.5b]

To monitor the performance of personnel, each analyst performing **casework or verifications** will demonstrate successful performance of at least one internal or external proficiency test per calendar year in their forensic science discipline(s). In instances where an external or internal proficiency test is not available or appropriate, observation-based monitoring can be used (see Performance Monitoring Activity Design for more information on design and documentation of Observation Based tests). [AR 7.7.4] The proficiency test requirements of the Quality Assurance Standards for Forensic DNA Testing Laboratories and the Quality Assurance Standards for DNA Databasing Laboratories will be applied to laboratory employees assigned to the Biology Discipline and performing laboratory tasks. [QAS 13]

For purposes of tracking compliance with proficiency testing requirements the laboratory utilizes the due date to the proficiency test provider. QAS 13.3

PROFICIENCY TEST PLANNING

All analysts who are currently authorized to perform **casework or verification** must be included in the Laboratory's proficiency testing and performance monitoring plans. Newly qualified personnel shall enter the Laboratory's proficiency testing and performance monitoring plans the year following the date of their authorization. Newly qualified technical personnel in Forensic Biology must enter the external testing program within eight (8) months of their date of qualification. QAS 13.1.6

Analysts who are solely performing technical review are not required to complete annual proficiency tests with the exception of technical reviewers in Forensic Biology who must meet the proficiency testing requirements outlined in the Quality Assurance Standards for Forensic DNA Testing Laboratories and the Quality Assurance Standards for DNA Databasing Laboratories. QAS 13.1.5 **Discipline Supervisors** in conjunction with **Technical Leads** are responsible for ensuring analysts solely performing technical reviews in their discipline are current on laboratory policies and procedures and have been competency tested on all equipment and procedures employed in that technical record.

Each year the **Quality Assurance Manager** works with the **DNA Technical Manager** and **Discipline Supervisors** to create a proficiency test plan for each discipline. The proficiency test plan overview is utilized to track proficiency test plans over an accreditation cycle. From this a proficiency test plan for each year is created. This plan is used to document purchase, manufacturer information, submission information, and Forensic Biology methodology used. The **Quality Assurance Manager** coordinates the purchase and tracks the submission of proficiency tests for the laboratory.

EXTERNAL PROFICIENCY TEST PROVIDERS

When available, an ISO/IEC 17043 accredited provider, with an accrediting body that is a signatory to the International Laboratory Accreditation Cooperation-Mutual Recognition Arrangement (ILAC-MRA), with an appropriate scope of accreditation will be used. AR 7.7.7a If an approved external proficiency test provider is not available, the laboratory will gain approval from ANAB for an alternate means of interlaboratory comparison. Vendor Approval Forms are used to document the approval of proficiency test providers and are kept in SharePoint ISO 7.7.2 a) QAS 13.2. Proficiency test providers should be selected to provide the test that best simulates the types of evidence, analysis, and breadth of results/opinions that can be formed in casework. If multiple analysts are participating the same testing cycle, then proficiency test providers that offer a double-blind option should be used whenever possible.

MONITORING INDIVIDUAL PERFORMANCE ON PROFICIENCY TESTS

To allow for proficiency tests to adequately monitor the performance of the individual taking the test, consultation with other analysts and viewing the results of other analysts taking the same test should not occur until the results have been submitted AR 7.7.5 a). If the analyst determines that consultation is necessary prior to submission, then **the Discipline Supervisor and/or Discipline Technical Lead** should be consulted, and documentation of this consultation included in the proficiency test record. If the **analyst** has concerns about the items received from the proficiency test provider, the **Quality Assurance Manager** should be contacted to reach out to the proficiency test provider for guidance.

Technical and administrative review of other analyst's results should not be performed by an analyst assigned the same proficiency test unless the reviewer's test has already been submitted AR 7.7.5 a).

If during technical review or verification of an external proficiency test, a technical error is detected in an analyst's results this can be corrected prior to submission to the proficiency test provider; however, the error should be documented through the Quality Assurance Review process and reported as an unexpected monitoring result to ANAB (if appropriate). [AR 7.7.5f]

Calibration proficiency tests will be performed on an item calibrated by the person being tested. Additional requirements for calibration proficiency tests are specified in the Breath Alcohol Procedure Manual [AR 7.7.5 e)].

TAKING A PROFICIENCY TEST

Laboratory personnel will perform proficiency tests by utilizing the same test methods, technical review, verification, and administrative review procedures as are normally applied to casework. See Monitoring Individual Performance on Proficiency Tests above for more information on consultations in proficiency tests.

External proficiency tests will be assigned to the analyst with a due date 5 business days prior to the manufacturer due date. When an analyst cannot submit the proficiency test by the assigned due date communication with the **Discipline Supervisor** and **Quality Assurance Manager** should occur as to the reason and when the test will be completed.

All external proficiency tests must be submitted by the manufacturer due date and the laboratory will authorize the proficiency test provider to release test results to ANAB. [AR 7.7.7 b-c]

Internal proficiency tests will be assigned a due date by the person providing the test.

Each proficiency test will have a case file in the LIMS. Case file creation for proficiency tests should be performed by **Evidence Staff** or **Quality Assurance Manager**. Technical records for proficiency tests shall be retained in the same manner as regular casework. The final submission paperwork for the proficiency test shall be retained in the LIMS. For Toxicology-Calibration proficiency tests a blood alcohol request will be used to retain all technical records associated with the test. [AR 7.7.3e-f QAS 13.4.3, 13.4.4]

Whenever possible a portion of the material should be retained for retesting purposes. Proficiency test items should be returned to the evidence room after completion. All proficiency test items should have an intended disposition of destroyed as these items will be destroyed by the **Quality Assurance Manager** after the results are evaluated.

COLLABORATIVE TESTING SERVICES (CTS) PROFICIENCY TEST INSTRUCTIONS

For external proficiency tests purchased through Collaborative Testing Services (CTS) the following outlines the internal Laboratory process.

- The **Quality Assurance Manager** or **Evidence Staff** will assign the test in the CTS portal online to the appropriate proficiency test taker.
- The **Quality Assurance Manager** or **Evidence Staff** will create the case assignment in the LIMS initiate the Proficiency Test Assignment and Completion Form.
- The proficiency **test taker** will perform the analysis and enter the results in the CTS portal online.
- The **test taker** will submit the test results to their respective discipline group (Biology, Firearms, Latent Prints, Alcohol, Drugs) for administrative review in the online portal prior to submission (the results must be technically reviewed in the LIMS prior to submission, and this shall be verified by the administrative reviewer)
- To administratively review the test, the **reviewer** will "claim" the test from the discipline group in the online portal and ensure that the information in the LIMS matches the results that are entered to be submitted online.

- After the results are administratively reviewed in the portal, the test will be submitted to CTS via the online portal. The proficiency **test taker** will place a copy of the submitted test with the submission date and time stamp into the case attachments in the LIMS.

FORENSIC ASSURANCE (FA) TEST INSTRUCTIONS

For external proficiency tests purchased through Forensic Assurance (FA) the following outlines the internal Laboratory process.

- The **Quality Assurance Manager** or **Evidence Staff** will create the case assignment in the LIMS and initiate the Proficiency Test Assignment and Completion Form.
- The proficiency **test taker** will perform the analysis and enter the results in the FA worksheet accessible using the Login and Password associated with the evidence.
- During the entry of results the portal will ask if you want to release your results to an accrediting body. Select yes to this prompt. The portal will then ask you to upload a copy of a completed release of results form. The signed form is in case attachments for the proficiency test case in the LIMS. Download a copy of the form from and review the test information. If any information appears incorrect contact the Quality Assurance Manager. If the form is correct and complete upload it to the portal.
- The proficiency **test taker** will enter the results and then email the test results through the FA system to the appropriate person for administrative review.
- To administratively review the test, the **reviewer** will review the email received from FA and ensure that the information in the LIMS matches the results that are entered to be submitted online. The **reviewer** will email the proficiency test taker when the review is complete. (The results must be technically reviewed in the LIMS prior to submission, and this shall be verified by the administrative reviewer)
- After the results are administratively reviewed, the proficiency **test taker** will log into the FA system and the test will be submitted to FA via the FA online submission and selecting an email be sent to the **Quality Assurance Manager**. The proficiency **test taker** will place a copy of the submitted test with the submission date and time stamp into the case attachments in the LIMS.

OTHER PROFICIENCY TEST PROVIDERS

For external proficiency tests purchased through other approved providers the following should be used as a guideline for submission information. Any questions on submission should be directed to the **Quality Assurance Manager**.

- The **Quality Assurance Manager** or **Evidence Staff** will create the case assignment in the LIMS and initiate the Proficiency Test Assignment and Completion Form.
- The proficiency **test taker** will perform the analysis and enter the results as required by the provider.
- Prior to submission of any results the proficiency **test taker** must provide the entered results to a **reviewer** for administrative review.
- The **reviewer** will review the results entered for submission to ensure the information in LIMS matched the results that are to be submitted. (The results must be technically reviewed in the LIMS prior to submission, and this shall be verified by the administrative reviewer)
- The **test taker** will then submit the results and place a copy of the submitted test with the submission date and time stamp into the case attachments in the LIMS.

PROFICIENCY TEST EVALUATION

The results of all external proficiency tests will be reviewed by the **Discipline Supervisor**, **DNA Technical Manager** or **Discipline Technical Lead**, and **Quality Assurance Manager**. Forensic Biology proficiency tests will also be evaluated by the **CODIS Administrator**. QAS 13.6

External proficiency tests must be consistent with the manufacturer's expected result. AR 7.7.5c

- For consensus-based proficiency tests the consensus result is the expected result.
- For proficiency tests where no manufacturer's expected result is provided a result outside of the laboratory's criteria for acceptable performance will be considered an unexpected result.
- When an identification or exclusion is the expected result, the outcome of inconclusive is considered an unexpected result.
- If the laboratory does not have the methodology to fulfill a component of the proficiency test that is covered under the scope of accreditation this will be evaluated as an unexpected result.
- For Quantitative Analysis the expected result is the grand mean. If the test provider's mean/grand mean does not fall into the result range established by the laboratory result +/- the laboratory's uncertainty of measurement this is an unexpected result.

Additionally, Forensic Biology results are evaluated by the items listed under sub-category 13.5 of Standard 13 (proficiency testing) of the FBI QAS audit documents and checklists for forensic DNA testing and DNA databasing laboratories and

- DNA profile typing data must have no analytical errors.
- Results and conclusions reported must be consistent with the Forensic Biology standard operating procedures and interpretation guidelines.

The results of all internal proficiency tests and observation-based proficiency tests will be evaluated by the **Discipline Supervisor**, **Discipline Technical Lead or DNA Technical Manager**, and **Quality Assurance Manager** for conformance with the criteria for successful performance outlined for the monitoring activity when designed.

Any unexpected results on a proficiency test will be evaluated either through the Quality Assurance Review process or another form of risk assessment and ANAB will be notified within 30 days of the evaluation of the test. AR 7.7.5f

Any proficiency test results determined to be unsatisfactory by the laboratory will require a Quality Assurance Review and remediation shall include successful completion of an additional internal or external proficiency test. QAS 13.5.4.1

The results of all proficiency tests will be provided to the **analyst**. AR 7.7.8h QAS 13.6

PROFICIENCY TEST RECORDS

The Proficiency Test Assignment and Completion Form is used to document the final evaluation of the proficiency test including if the results were satisfactory or unsatisfactory, and any Quality Assurance Reviews QAS 13.4.6, 13.4.7 associated with the test. AR 7.7.5g This form is combined with any supporting documentation and results from the proficiency test provider and retained in the Quality Assurance Records. QAS 13.4.5

PERFORMANCE MONITORING PLANS

The performance monitoring plan is designed to expand upon the proficiency testing program to ensure that individuals are being monitoring over all job functions and that a representative portion of the components/parameters and equipment/technologies listed on the Scope of Accreditation for a discipline is being monitored. When designing a

performance monitoring plan **Discipline Technical Leads, the DNA Technical Manager, and Discipline Supervisors** will consider the following:

- What portions of the discipline scope/laboratory activities are covered by the proficiency testing program
- If other methods of ensuring validity of results are likely to detect issues (e.g contamination events in Biology which are documented through Quality Assurance Reviews)
- The risk associated with the process (high severity if failure occurred or low likelihood of detection should have greater monitoring)

Documentation of the evaluation described above shall be retained and updated as needed. This risk assessment is then utilized when designing the annual performance monitoring plan for a discipline. Examples of how the risk assessment could be used in designing a performance monitoring plan include:

- Determining how many analysts to sample in a particular activity
- Determining how frequently to evaluate a portion of the scope/laboratory activity

In general, performance monitoring plans should attempt to vary the analysts selected for monitoring of each activity over time and ensure that higher risk activities are incorporated more frequently.

The annual performance monitoring cycle runs from November 1 through October 31st of the following year. Each year, at the end of the performance monitoring cycle, the discipline **Technical Lead or DNA Technical Manager** will summarize the results of the previous year's monitoring activities and prepare a new performance monitoring plan to submit to the **Quality Assurance Manager**.

Performance monitoring plans shall include:
- An explanation of how the monitoring activities for the year were selected
- A schedule that includes the type(s) of monitoring activities that will be used in the upcoming monitoring cycle
- A Performance Monitoring Activity Design Form for each type of monitoring activity

Performance monitoring plan summaries shall include:
- A summary of results of the performance monitoring
- Any unexpected results obtained.[AR 7.7.8g]
- Any actions taken as a result of performance monitoring. [AR 7.7.8g]
- Any recommendations for future performance monitoring based on the results

PERFORMANCE MONITORING ACTIVITY DESIGN

Performance monitoring plans can utilize a number of monitoring methods to include: internal proficiency tests, observation based monitoring, retesting, and written exams. External proficiency tests and internal proficiency tests that are part of the proficiency test plan (see Proficiency Test Planning) are included in the decisions on what additional components need evaluated for a discipline (if any) but are not considered part of the performance monitoring plan.

The Performance Monitoring Activity Design Form is used to document the design of the monitoring activity and includes:

- The type of monitoring activity
- Criteria for successful performance (for observation-based monitoring a form shall be created to document the required criteria prior to observation) [AR 7.7.5c]
- Mechanism to ensure the quality of the monitoring activity [AR 7.7.5d]

All performance monitoring activities designed by the laboratory will ensure:

- The use of approved methods by the participant AR 7.7.5b
- The results are not readily known or available to the participant AR 7.7.5a

PERFORMANCE MONITORING PLAN RECORDS

Performance monitoring plans and summaries are stored in in the QA Records. AR 7.7.8

Records associated with individual performance monitoring activities shall be kept in SharePoint and shall include:

- Reference to the Performance Monitoring Activity Design Form related to the activity
- Explanation of any deviation from the intended design
- Appropriate technical records based on the monitoring activity (may be stored as technical records)
- For Observation based monitoring the completed form demonstrating the criteria evaluated and results
- Clear indication of satisfactory or unsatisfactory results
- Record of feedback/results provided to the participant

Unexpected results from performance monitoring will be reported to the **Quality Assurance Manager** immediately and ANAB will be notified within 30 days of the evaluation of the performance monitoring of any unexpected results. AR 7.7.5f

OTHER TYPES OF MONITORING

The ASCDL may choose to monitor processes or activities not covered directly in the Performance Monitoring Program described above. In general, any monitoring activity should be planned and documented; however, monitoring that does not occur as part of the Performance Monitoring Program above is not required to meet the documentation and notification requirements listed for the Performance Monitoring Program.

Any nonconforming work identified through other monitoring programs will be evaluated through the Quality Assurance Review Policy. Monitoring activities that do not result in nonconforming work may still be evaluated as part of a personnel action.

TESTIMONY MONITORING

The Laboratory will monitor the testimony of all testifying personnel. Each **testifying individual** will have an evaluation of their testimony at least once per calendar year. Once per accreditation cycle (4-year calendar period), each **analyst authorized to issue reports**, will have a technical review of their testimony performed by a staff member who is technically competent in the discipline at a Forensic Scientist 3 or higher level (or equivalent).

These reviews may be accomplished through one of the following methods:

- Direct observation by a laboratory member, court officer, or other individual present in the court room
- Communication by **Key Management** with a court officer
- Review of court transcripts by a technically competent analyst
- Mock court/technical discussions

Evaluations of testimony from individuals external to the laboratory are collected using the following Survey Monkey link.

https://www.surveymonkey.com/r/X226BHQ

Evaluation of testimony from laboratory personnel is documented using the Peer Expert Witness Evaluation Form. This form is used to document both technical and non-technical reviews by laboratory personnel.

Analysts shall notify their **discipline supervisor** of all pending court appearances with as much notice as possible. At the conclusion of testimony, the **testifying individual** is responsible for seeking testimony feedback. The Survey Monkey link should be provided to prosecutors and defense attorneys, whenever possible.

All feedback is provided to both the **testifying individual** and their **discipline supervisor**. If feedback indicates needed improvement, the testifier's **Supervisor** will seek further information to determine the course of action to be taken. This communication will be documented as well as any remedial action that is taken. This documentation will be retained by the **Quality Assurance Manager** in the Witness Evaluation Records. If it is determined that testimony provided did not follow laboratory procedures the procedure for non-conforming work will be followed (see Quality Assurance Review Policy).

For more information on interactions with the court system, subpoenas, and the laboratory testimony policy see Interactions with the Court System.

At the end of each calendar year the **Quality Assurance Manager** will create a record of any **discipline personnel** that did not testify. The **Quality Assurance Manager** will retain testimony monitoring records and any remedial actions taken for not less than ten years.

MENTORSHIP

Mentored casework is a form of performance monitoring used for newly authorized analysts (see Mentored Casework). Discipline Procedure Manuals shall define the mentorship requirements for the discipline including requirements for ending of mentored casework and documentation.

LABORATORY EMPLOYEE SCHEDULES

LABORATORY OCCUPANCY POLICY

The Laboratory's routine operational hours are from 6:00 AM to 6:00 PM Monday through Friday.

Due to safety considerations, no one should be alone in the laboratory building while conducting lab work, particularly work involving chemical or biological reagents, firearms, or other hazardous materials. If it is necessary for an analyst to conduct lab work at a time when there are no other building occupants a member of **Key Management** must be available to remotely check on the analyst periodically and at the end of laboratory work.

Personnel may work alone in the office area to conduct administrative duties such as: scientific report review; reports, paper, or memo preparation; court preparation; latent print verification reviews; etc. Personnel may also operate analytical instrumentation workstations for data handling and printing of analytical results.

Laboratory staff who need to enter the building outside of routine operational hours in the laboratory must have prior approval of their **Supervisor** and the **Supervisor** must notify a member of **Top Management** of the approval.

ROUTINE MINIMUM STAFFING LEVELS

The routine minimum staffing levels outlined below are intended to be Monday-Friday 9AM-3PM.

Each supervisor will ensure that the composite of established duty days/hours for their direct reports meets the minimum coverage outlined below.

For scientific services (marked *scientific* in table below), only competent non-supervisory analysts in the associated service will be considered when establishing routine duty days/hours to meet minimum coverage. Services that have less than 3 analysts meeting this definition should attempt to meet these requirements within reason, but the laboratory recognizes that this may not be routinely possible. All scientific services should strive to have at least 3 analysts meeting this definition for redundancy.

Service	On-Site	Total*
Admin	1	1
Biology *(scientific)*	1	2
Blood Alcohol *(scientific)*	1	2
Breath Alcohol *(scientific)*	1	2
Chemistry Supervisor (FS4)	1	1
Crime Scene *(scientific)*	0	1
DNA Supervisor (FS4)	1	1
DNA Tech Manager	0	1
Evidence	2	2
Facilities	1	1
FATM *(scientific)*	1	1
Footwear *(scientific)*	1	1
Latent Print Examination*(scientific)*	0	2
Latent Print Processing *(scientific)*	1	2
Physical Supervisor (FS4)	1	1
Seized Drugs *(scientific)*	1	2
Top Management	1	1

*If the total is larger than the on-site then the additional person can be on-site or on telework status

LABORATORY EMPLOYEE ROUTINE WORK SCHEDULE EXPECTATIONS

All routine work schedules must fall within laboratory operational hours.

Routine work schedules for non-supervisory staff must include being onsite at least 7.5 hours a day, 4 days a week, or 6 hours a day, 5 days a week (30 hrs). The remaining 7.5 hours (20% of total 37.5-hour workweek) can be allocated to a routine telework agreement with supervisory approval.

A normal work schedule is considered 7.5 hours per day onsite 5 days a week. Any agreed upon deviations to this normal work schedule will be documented via an alternate workweek and/or telework agreement.

Supervisors will ensure that any telework, or alternate workweek agreements are mutually beneficial for the lab and employee. Supervisors will ensure that minimum staffing levels are maintained before approving a telework and/or alternate workweek agreement (see Routine Minimum Staffing Levels for more details). A staff member's length of tenure will be considered if all requests for telework and/or alternate workweek agreements cannot be accommodated due to minimum staffing level requirements. Staff in initial probationary status do not have the options of routine telework or alternate workweek agreements.

Supervisory positions will not have a routine telework or alternate workweek agreement; they are expected to routinely be on site 8 hours a day, 5 days a week.

Situational telework can be made available for specific assignments pending **Discipline Supervisor** approval. For more information on Situational Telework see the Supervisory Guidance Document.

OFFICE CLOSURES

The Division of Finance's webpage on Office Closure & Early Release outlines statewide policies related to office closures and early release.

- State offices will be closed only at the direction of the Governor or the Governor's designee. No other state agency can independently make this determination.
- Telework ready employees **that were scheduled to telework on a closure day** should continue to work, regardless of if their duty station office is closed.
- An Early Release/Office Closure does not alter leave requests for employees who **were on scheduled leave for this time** (i.e. out on vacation/sick leave).

LEAVE REQUESTS

ADVANCED NOTICE EXPECTATIONS

The General Governing Bargaining Unit (GGU) Collective Bargaining Agreement states:

"Personal leave requests require the prior approval of the supervisor except in the case of illness or injury to the member. Member requests shall be given full consideration and, to the extent practicable, approved. However, the parties agree that the final decision with regard to approval or disapproval of any request will be based on the supervisor's evaluation of the needs of the job. In an absence due to illness or injury, the supervisor may require a physician's certificate. Members will not be required to provide a physician's certificate for illnesses of less than three (3) days unless improper use is suspected."

Whenever possible, absences will be scheduled in advance by giving **at least two (2) days' notice**.

In general, **three (3) or more** unplanned absence events per month is not expected. Being absent for consecutive days is considered one (1) absence event.

APPROVING AND DENYING

In general, the supervisor will approve leave requests unless there is a business need requiring the staff member's presence. In the event of there being a business need, the supervisor may deny the request barring extenuating

circumstances communicated to the supervisor by the staff member requesting the leave. **Top Management** should be notified whenever someone's leave is denied.

LEAVE-WITHOUT-PAY

The Alaska Administrative Manual addresses leave-without-pay (LWOP) rules (AAM 280.200) and the effects of LWOP on employee benefits (AAM 280.210). It states that "the agency head may authorize leave-without-pay at the request of an employee for a period of up to 12 months including for a leave of absence provided by 2 AAC 07.500 (3)."

The laboratory interprets this to mean that the lab chief will be notified of any LWOP incidents and must pre-approve planned LWOP.

SCHEDULED TIME OFF AND COURT CONFLICTS

Forensic staff, by virtue of the very nature of the job, have a professional obligation, as well as a legal responsibility, to respond to every subpoena received. The Analyst Leave Calendar is available to communicate scheduled time off to the court system to mitigate scheduling conflicts with court. Staff should record all planned leave on the Analyst Leave Calendar; however, when scheduled time off (vacation, day off, training, etc.) conflicts with a subpoena, the following protocol shall be followed:

- Routine Staff Schedules shall be altered, if necessary, for court appearances. It is acceptable to communicate scheduling concerns when arranging court testimony.
- Subpoenas take precedence over all scheduled time off.
- When a verbal request for appearance in court is received, the **analyst** should request a written subpoena be sent to serve as the official notification; however, verbal requests for appearance will still be acknowledged.
- Unresolved scheduling conflicts involving court are to be brought to the attention of the **Discipline Supervisor** as soon as they develop. The **Chief** may also be informed as needed.
- Under no circumstances is an **analyst** to advise a prosecutor or defense attorney that they will not respond to a court request due to interference with time off; however, it is acceptable to discuss scheduled vacation time to determine if alternate plans for the court appearance are possible.
- At the discretion of the **Discipline Supervisor**, and with agreement from the requesting attorney, court/time off conflicts may be resolved by having the evidence reanalyzed, giving testimony from the Laboratory records, or remote testimony. Should none of these remedies be feasible, and testimony still required, the analyst will be expected to alter time off plans to allow testimony to be given.

MEAL BREAKS

The General Governing Bargaining Unit (GGU) Collective Bargaining Agreement states that:

"A lunch break of not less than thirty (30) minutes nor more than one (1) hour shall be allowed approximately midway of each shift."

The State of Alaska Division of Personnel & Labor Relations interprets this to mean that employees must take a meal break. Meal breaks are not compensable and therefore not considered when calculating total working hours as outlined in Routine Work Schedule Expectations.

Below are expectations related to meal breaks taken by lab personnel: - The Routine Staff Schedules Worksheet will include routine meal break times for all staff members. Meal break start times are viewed as more flexible than shift start/end times, but they should meet expectations as outlined in this section.

- A meal break is not required on days where less than six (6) hours are worked.
- Meal break length will be thirty (30) to sixty (60) minutes.
- Meal breaks can be taken during transition time between lab and remote work sites assuming all other expectations in this section are met.
- Meal breaks must start after the first hour of a work shift and must end before the last hour of a work shift.

Deviations from these meal break expectations can occur if there is a business need (e.g., a staff member is in the middle of something in the lab and can't get away until later in their shift), but sparingly.

BREAKTIME ACTIVITIES

The General Governing Bargaining Unit (GGU) Collective Bargaining Agreement states that:

"All bargaining unit members shall be allowed **two (2) paid fifteen (15) minute** relief periods in each normal workday. The Employer shall establish reasonable rules governing the taking of such relief periods."

The laboratory strongly encourages that all staff members take advantage of relief breaks. Activities to improve social cohesion and wellness can be facilitated by each laboratory section and/or through the wellness committee. Examples include board games, potlucks, puzzles, arts and crafts, and physical activities such as walks around the building or yoga.

Participation in these activities will be limited to meal and relief breaks unless approved by **Top Management**.

FACILITIES/ENVIRONMENTAL

The ASCDL facilities are located at 4805 Dr. Martin Luther King Jr. Ave. Anchorage, AK 99507. All laboratory activities are performed within the laboratory facilities with the exception of the following:

- Scene Investigation (entire scope)

The following activities may be performed within laboratory facilities or remotely upon approval by the **Discipline Supervisor**.

- Impressions for Physical Comparison (Perform Laboratory Activities, Analysis of Results, and Verification of a Result)
- Friction Ridge for Individual Characteristic Database and Physical Comparison (Perform Laboratory Activities, Analysis of Results, and Verification of a Result)
- All Disciplines and Components (Review Results, Authorize Results, Technical Review, Express Opinion or Interpretation, Report Results, Authorizes Report)

LABORATORY SECURITY SYSTEM

The laboratory uses the Lenel OnGuard Security System and electronic key cards to control and limit access to laboratory facilities. Features of the security system include:

- The Laboratory entrance/exit points and the outer perimeter have security control with an intrusion alarm system.

- All exterior laboratory doors are always locked but accessible via electronic access cards with the exception of the visitor entrance. The visitor entrance is unlocked from 7:30 to 4:30 on workdays.
- The evidence and service receiving entrances are equipped with a communication box and access to the evidence lobby or service entrance can be granted by evidence staff as needed during routine business hours.
- All facility entrance points, and the evidence vault are monitored by video camera. Video is stored for at least 120 days.
- The internal testing areas of the Laboratory have a locking system controlled by electronic access cards. Doors equipped with electronic readers have reader events stored for at least 120 days.
- A glass break alarm
- Monitoring of the Uninterrupted Power Supply (UPS) system

Security system notifications are directed to **Maintenance Staff** and the **Chief**.

LABORATORY STAFF KEYS

Security codes, electronic access cards, and keys for the laboratory will be issued to individuals by the Key Controller of those keys. All controlled laboratory keys shall be stamped with numbers for tracking purposes. This includes laboratory door keys, electronic keys, and evidence locker keys.

Laboratory employees are responsible for exercising due care in preventing loss of facility keys. If a key is lost or stolen, the laboratory employee shall provide prompt, verbal notification to their **immediate Supervisor**. Upon verbal notification, the following information will be documented and provided to the **Chief**:

- Employee's name
- Employee's key number
- A brief description of the events surrounding the key loss

When a key has been lost, the **Chief** shall decide whether to rekey the affected locks within the Laboratory for security purposes.

If a key is recovered later the key should be placed in the custody of the Key Controller and records changed to reflect the recovery. Written documentation will be provided to the **Chief** and should include:

- Employee's name
- Employee's key number - recovered key
- Date key was lost
- Brief description of events surrounding the finding of the key.

Copies of written documentation associated with key loss/recovery will be stored in the quality assurance records.

When a **laboratory employee** leaves the Department, the **Discipline Supervisor** shall be responsible for obtaining the controlled keys before the employee leaves and for returning the controlled keys to the appropriate Key Controller. For those keys tracked in the LIMS, the Key Controller will show the return of the keys and retain the keys for future assignment. For electronic keys, the card will be marked as returned and all access levels removed from the profile.

ELECTRONIC DOOR ACCESS CARDS

Top Management will be assigned the responsibility of being the Key Controller of all electronic keys. Electronic keys are controlled using a Lenel OnGuard security system. Electronic keys are assigned by **Top Management** to staff based on business and security needs. Electronic Access Keys shall be worn visibly while in the laboratory to aid in identification of laboratory staff and non-laboratory staff who have approved access.

FACILITY MASTER KEYS

Top Management is the Key Controller for facility master keys and facility control keys. These keys are tracked as evidence items using the chain of custody in the "Management" case within the LIMS system. Physical Facility Master Keys are currently assigned to Maintenance Staff, the Chief, and the Assistant Chief.

DISCIPLINE KEYS

Discipline Supervisors shall be the Key Controller for all discipline specific areas as required. Discipline Procedure Manuals will outline the handling of discipline specific keys. All evidence-related, non-electronic keys are tracked in the LIMS utilizing the chain of custody in the "Management" case. Common/Day Use lockers in the discipline laboratories are excluded from tracking.

NON-LABORATORY STAFF ELECTRONIC DOOR ACCESS CARDS

Electronic keys are assigned by **Top Management** to individuals who require facility access including building residents who are non-laboratory staff and other non-laboratory employees who require access. Electronic access cards are provided based on business and security needs and **Top Management** determines the access level.

The Door Permission Request Form is used to document long-term door access requests from non-laboratory staff. **Top Management** can approve door permission request forms. Approved Door Permission Request Forms are stored in the quality assurance records. Non-laboratory staff access cards are typically set to expire at 3 years unless an earlier expiration is warranted. Access cards for non-laboratory staff are reviewed annually in the Electronic Door Access Audit (Electronic Door Access and Key Audits).

Door access can also be provided temporarily through visitor access cards. Visitor access cards are assigned appropriate door access based on business needs and a record of the badge assignment is documented on the Visitor Key Log.

All visitor access cards, and non-laboratory staff access cards should be visible when in the building to aid in identification of those with approved laboratory access.

LABORATORY VISITORS

Depending on the business need laboratory visitors can be provided electronic door access cards which allow them to be in the laboratory unescorted (see Non-Laboratory Staff Electronic Door Access Cards). Regardless of access card levels non-laboratory employees may not be in those areas of the laboratory where evidence is present unless a laboratory employee is also present. Examples of visitors who may be provided visitor access cards include janitorial contract staff, maintenance contractors, instrument vendors, and Department of Public Safety staff.

Visitors that are not issued electronic door access cards are required to sign the visitor logbook in the visitor entrance reception area when entering and exiting. Visitors with no access card must be escorted at all times by someone with approved access.

Individuals submitting evidence at the evidence entrance, allowed access through the service receiving door during routine business hours, or accessing the classroom only are exempt from the visitor requirements.

ELECTRONIC DOOR ACCESS AND KEY AUDITS

Electronic door access levels for both laboratory and non-laboratory staff will be reviewed and updated annually during the Door Access Audit. Records of the Door Access Audit are stored in the quality assurance records.

Access to CODIS database samples under the control of the Laboratory will be restricted to those persons authorized by a member of **Top Management** and the **CODIS Administrator or Alternate Administrator**. On an annual basis, a memo will be prepared listing all persons with authorized access to CODIS database samples. At a minimum, during the Door Access Audit these permissions are reviewed to ensure electronic access is consistent with authorized individuals.

Access to controlled substance reference standards and training materials are restricted to those persons authorized by a member of **Top Management** and the **Discipline Supervisor**. Staff having access to these materials will be recorded in a memo that is updated annually at a minimum. This access is reviewed during the Door Access Audit.

To minimize risk associated with providing employees access outside of normal business hours, facility access outside normal business hours is monitored monthly and records of this monitoring are stored in the quality assurance records.

Physical Keys tracked in the “Management” case in the LIMS are audited annually and the record of the audit stored in the quality assurance records.

FIRE DETECTION SYSTEM

The laboratory is equipped with a fire detection system. Fire alarm pull stations, fire extinguishers, and smoke alarms are monitored by Siemens Security and send notifications to **Maintenance Staff**.

An approved vendor will perform an annual fire inspection which checks all components of the fire detection system. Records are stored with the **Maintenance Specialist** files.

FIRE ALARM PULL STATIONS

Fire alarm pull stations are located throughout the building. Pull stations activate the fire alarm as well as notify Siemen Security and the Fire Department.

SPRINKLER SYSTEM

The water sprinkler system is designed to help extinguish and minimize the spread of fires. Sprinklers are normally activated only by heat. They are NOT connected to fire alarm pull stations. To ensure that sprinklers are effective in the event of a fire and prevent accidental release:

1) Maintain at least 18 inches of clearance between any equipment or storage items and the ceiling.
2) Never hang anything from a sprinkler head.
3) Arrange work areas to facilitate sprinklers and allow even water distribution.

FIRE EXTINGUISHERS

Class A-B-C multipurpose fire extinguishers are available if there is a fire in the Laboratory facility. There is also a class D fire extinguisher located in the firearms discipline.

Fume hoods are equipped with fire extinguishers which are automatically activated by heat detectors located within the fume hoods. Fume hood extinguisher activation will activate the building fire alarm.

SMOKE DETECTORS

Smoke detectors located in the laboratory facilities will respond to the solid and liquid aerosols produced by a fire (i.e., smoke). Since smoke detectors cannot distinguish between smoke particles and other particles such as steam, all Laboratory employees need to be aware of smoke detector locations and be considerate when working around them.

ENVIRONMENTAL MONITORING/CONTROL

ENVIRONMENTAL CONDITIONS

Laboratory facilities and locations where laboratory activities are performed (see Facilities/Environmental) will be appropriate to facilitate performance of all aspects of testing and provide for storage of records, supplies, space for equipment and instruments and shall not adversely affect the validity of results.[ISO 6.3.1]

For concerns with facilities laboratory personnel should complete a maintenance request in Zendesk Scientific Crime Detection Laboratory (zendesk.com). High urgency requests (response needed faster than 4 hours or immediate should contact the **Maintenance Specialist** at 907-748-9324 or **Top Management**.)

All examinations require normal laboratory environmental conditions unless noted in Discipline Procedure Manuals. If environmental conditions could affect the quality of an examination, the conditions will be recorded in the appropriate case records. Normal laboratory environmental conditions are controlled and monitored by the **building maintenance staff.** See Building Automation System. Examinations will be stopped when the environmental conditions could jeopardize the results

The Laboratory will take measures to prevent contamination, interference, or adverse influences on laboratory activities. The Laboratory Management System will review these measures annually during the Annual Management Review. [ISO 6.3.4 b]

The Laboratory will provide effective separation between incompatible activities or testing. Disciplines will monitor and review the effectiveness of separation, at a minimum, annually during the internal audit. [ISO 6.3.4 b]

BUILDING AUTOMATION SYSTEM

The Building Automation System includes the air handlers, generators, pumps, heating, and air conditioning systems.

FUME HOODS

Fume hoods are monitored by the building automation system for air flow and fire suppression. Fume hoods will be inspected and adjusted, if necessary, annually by in-house maintenance staff. Documentation is stored in SharePoint.

AIR ACUITY (LABORATORY AIR CHANGE REGULATION)

Laboratory space within the ASCDL facilities is designed to have 4 to 6 changes or air per hour under normal conditions. Laboratory air exhaust is monitored for Volatile Organic Compounds (VOCS) and automatically activates air purge within the laboratory space.

Air purge increases the room air replacement to 12 changes per hour and notifies the **Maintenance Specialist.** Air purge can be manually activated in the laboratory spaces by using the purge switch.

LABORATORY TEMPERATURE AND HUMIDITY MONITORING

The Forensic Biology Laboratory spaces (2212 and 2215) have room temperature monitoring to ensure appropriate temperatures for equipment operation. Room temperatures outside the range of 15°C to 25°C (59°F to 77°F) will alarm and notify the **Maintenance Specialists** and **Laboratory Chief**.

The Forensic Biology and Seized Drug laboratory spaces include humidity monitoring to ensure laboratory humidity remains above 25%.

REFRIGERATOR/FREEZER TEMPERATURE MONITORING

Laboratory refrigerators and freezers are monitored through the Siemens Security system. Laboratory freezers have a set point of -20°F and generate an audible alarm as well as notification of **Maintenance Staff** when outside of -35°F to -10°F. Laboratory refrigerators have a set point of 35°F and alarm and notify when outside of 25°F to 45°F.

All laboratory refrigerators and freezers are monitored but Forensic Biology refrigerators and freezers have been designated critical and require immediate attention if outside of allowable tolerance. Forensic Biology refrigerator and freezer notifications are sent to the **Maintenance Specialist** and a **Forensic Biology Supervisor** to ensure timely action to any alert.

FACILITY BACKUP POWER

To ensure sensitive laboratory equipment has sufficient power the laboratory is equipped with an emergency backup generator and uninterrupted power supply (UPS).

In the event of a power interruption the UPS instantaneously restores power to devices with no interruption while the emergency backup generator restores power within approximately 10 seconds.

Outlet color is used to designate which type of power protection is provided.

- White outlets are normal power with no UPS or emergency generator.
- Red outlets are connected to emergency generator backup.
- Gray outlets are connected to the UPS and is surge protected.

Laboratory personnel should ensure equipment is plugged into the appropriate outlet based on the sensitivity of the equipment and needs of the discipline.

LABORATORY HOUSEKEEPING

The following guidelines will be followed to maintain an acceptable level of cleanliness at the laboratory:

- General cleaning services are provided by janitorial service personnel. Laboratory personnel are responsible for maintaining their specific areas.
- Work areas should be kept as clean and uncluttered as possible.
- Clean work areas regularly and at appropriate times.

- Laboratory workspaces that are shared by two or more laboratory employees should be maintained by those employees.
- Trash removal from laboratory work areas is the responsibility of the laboratory employees who occupy those work areas. Trash should not be allowed to accumulate beyond the capacity of the trash receptacle. When a trash receptacle is full, trash should be bagged and disposed of in the dumpster.
- Trash that is considered hazardous must be labeled as such and disposed of in the appropriate manner (refer to Chemical Waste Disposal for additional information).
- Responsibility for maintaining common areas (e.g., multipurpose room, classroom) is shared by all employees.

LABORATORY VEHICLES

Vehicles are for the use of ASCDL personnel needing transportation for Department business only. State vehicles are monitored by the Department of Transportation (DOT) and operating cost, replacement cost, fuel and repairs are all paid monthly by the **Administrative Assistant Staff**.

Laboratory Staff should be familiar with Chapter 103 of the Department of Public Safety protocols involving use of a state vehicle.

Laboratory staff should sign out the vehicle on the sign out sheet in the administrative section near vehicle keys. It is also preferred that staff send a campus-wide email (dps.crimelab.campus@alaska.gov) when they intend to utilize the vehicle to notify other **staff**.

Registration is either in the glove box or center console of the state vehicle. Insurance is provided through State of Alaska. **Laboratory staff** that are pulled over or involved in a traffic collision should notify their supervisor as soon as safely possible. Chapter 229 of the Department of Public Safety protocols outlines protocols for traffic incidents in state vehicles.

A fleet credit card is provided for fuel expenses and can be used to pay for parking expenses. When using the vehicle **laboratory staff** should return the vehicle with no less than a half full tank of gas.

Any damage or maintenance issues should be reported to **maintenance staff** as soon as possible.

CONTROLLED DOCUMENTS AND QUALITY ASSURANCE RECORDS

CONTROLLED DOCUMENT REQUIREMENTS

The Controlled Documents document library in SharePoint houses all controlled procedure manuals, training manuals, work instructions, guidance documents, forms, and standard documents used by the laboratory. [ISO 8.3.1]

These documents are controlled to ensure the documents have been approved for use and only current versions of the documents are in use.

All controlled versions of quality system documents are located in SharePoint and should be the primary reference for these documents. If **laboratory personnel** print or save copies of controlled documents for temporary reference, they must verify the version with the current version in SharePoint prior to use.

TYPES OF CONTROLLED DOCUMENTS

Procedure Manual: Procedure manuals are used to define the mechanism of performing tasks within the laboratory. Should, Shall, May, and Can language is used to define the level of the requirements in a procedure manual (see Terms and Definitions). Deviation requests are used to document pre-approved deviations from procedure (see Deviation Requests). Deviations that are not preapproved follow the non-conforming work procedures (see Quality Assurance Review Policy)

Guidance Document: Guidance documents are used to communicate preferred or possible mechanisms of performing tasks but do not require strict adherence. Guidance documents are not used for procedures that, if not followed, would result in non-conforming work. Guidance documents are also used to communicate personnel expectations.

Training Manual: Training manuals are used to document components of training programs within the laboratory.

Working Instructions: Working instructions are intended to be step by step guidance through a specific task or set of tasks. Working instructions are typically used for personnel new to a task or for tasks that are not performed regularly as a reference but are not required for use.

Standard Document: Standard Documents are externally published standards that have been adopted by the laboratory. The most current version adopted is retained as a reference for laboratory personnel.

Form (Internal Use): Forms are differentiated by the primary intended audience for use. Internal use forms are templates that are primarily utilized by laboratory personnel. Forms are used to ensure consistency in documentation.

Form (External Use): External use forms are those forms/templates that are developed and maintained by the laboratory but are intended primarily for use by people outside the laboratory. Examples include breath alcohol forms used by officers in the field and sexual assault kit forms.

FORMAT OF CONTROLLED DOCUMENTS

All documents in the Forensic Quality Assurance Program are uniquely identified. Each document contains the date issued, issuing authority, revision identification, and page numbering system. Changes will be identified in the Revision History of each procedure manual, guidance document, working instruction, and training manual. Forms and standard documents do not have revision histories.

FORMATTING EXCEPTIONS

The laboratory controls documents that are used by the laboratory but published by an external source. All documents that are published by an external source are tagged with the publishing body in SharePoint. The most current version of external source documents in use by the laboratory is maintained as the current version but externally sourced documents are not required to meet the formatting requirements for internally maintained controlled documents.

Forms that are developed for external use often have specific requirements for formatting. External use forms are not required to meet the formatting requirements for controlled documents if their use does not allow it.

The administrative section utilizes the controlled document library to house the most current version of forms and templates for laboratory personnel use. These often have specific formatting guidelines and therefore Administrative Internal Use and External Use Forms are not required to meet all controlled document formatting requirements.

REVISION REQUIREMENTS

ASCDL ensures that all controlled documents in the Forensic Quality Assurance Program are periodically reviewed and revised as needed. **Discipline Supervisors** and **Discipline Technical Leads** are responsible for ensuring the content of Discipline controlled documents are kept current. **Top Management** is responsible for ensuring the content of lab wide manuals is current. [ISO 8.3.2 a] **Laboratory personnel** should submit suggested changes to manuals to the approving authority for consideration.

The following table indicates the minimum review timeframe for controlled document types: [ISO 8.3.2 b]

Controlled Document Type	Minimum Review Requirement
Procedure Manual	Annually
Notice of Expert Template	Annually
Guidance Document	Every 3 years
Working Instruction	Every 3 years
Form (Internal Use)	Every 3 years
Training Manual	Every 3 years
Form (External Use)	As needed
Standard Document	Updated as revised by issuing authority and adopted by laboratory.
Externally Published Document	Updated as revised by issuing authority and adopted by laboratory.
Administrative Section Forms	As needed

If a manual is reviewed and does not require an update the document should be republished indicating no changes were made in the revision history and updating the effective date to indicate the review occurred.

SHAREPOINT CONTROLLED DOCUMENT LIBRARY

CONTROLLED DOCUMENT LIBRARY PERMISSIONS

The controlled document library uses folders to designate different permission settings. Groups are given specific permission levels associated with each folder. These permission levels are:

- Read (can only see published versions of documents)
- Contribute (edit ability and ability to see draft versions of documents)
- Contribute/Approve (edit ability, ability to see draft versions of documents, and ability to approved publishing of a document)

All staff have Read access for all folders in this library. **Discipline Technical Leads** have Contribute access to their associated discipline folders. **Discipline Supervisors, DNA Technical Manager, and Top Management** have Contribute/Approve access to their respective folders. **Site Owners** have Contribute/Approve and Full Control access respectively.

Using content approval permissions allows a contributor to edit a document while not exposing the draft to all staff. The current published major version will remain visible to those with read only permissions until the draft is published and approved.

CONTROLLED DOCUMENT REVIEW, APPROVAL, AND ISSUANCE

All documents in the Forensic Quality Assurance Program are reviewed and approved by the appropriate person prior to issue. Lab wide controlled documents are reviewed and approved by **Top Management**. The Discipline Procedure Manuals, Discipline Work Instructions, and Discipline Training Manuals are reviewed and approved by the **Discipline Supervisors** and/or the **DNA Technical Manager**. The CODIS Manual is reviewed and approved by the **CODIS Administrator**. The Health and Safety component of the Laboratory Operations Manual (Appendix A) is written by the Laboratory's **Safety Coordinator** and reviewed and approved by **Top Management**.

Revisions to controlled documents are reviewed and approved by the same authorities that approved the original document. Any revised or new text is identified in the revision history of each controlled document. Changes in issuing authority will be documented in the revision history or approval from a member of **Top Management** will be documented. Worksheets are excluded from revision history requirement.

CONTROLLED DOCUMENT REVISIONS: MAJOR AND MINOR VERSIONING

SharePoint tracks revisions to controlled documents through versioning. Both major and minor versions are retained in a document's version history. Major versions have a zero behind the decimal point (e.g. 1.0, 2.0, 3.0, etc.). A major version is generated when a document version is published and approved for use. Minor versions have non-zero numbers behind the decimal point and are draft versions of the document.

Note: A user must have at least the Contribute permission level to see minor versions (i.e. drafts) of the document. Those who just have the Read permission level will only see the current published major version.

PUBLISHING CONTROLLED DOCUMENTS

The standard view for the Controlled Documents Document Library is Active Documents. In this view, Controlled documents are grouped by discipline (related service) and document type (QA Category). The Document Status, Laboratory Effective Date and Version are visible to the user.

Documents that have a Document Status of "Draft" or "Pending" will be highlighted red. Those that are at the "Approved" status will be highlighted green. Documents that have a Lab Effective Date in the future will be highlighted red. Those with an effective date in the past or present will be highlighted green.

When a draft is ready to be published, someone with the contributor permission for that document can select Publish from the Show Actions menu, this will change the Document Status from Draft to Pending.

Someone with the Approve permission for that document can either leave the document at Pending status, reject the draft, or approve the draft. After approval, the document will be marked as Approved, its version will become the current major version, and it will be visible to everyone with read permissions for the document. Previous major versions of the document can be accessed through Version History when needed.

CONTROLLED DOCUMENT LIBRARY METADATA COLUMNS

This library uses metadata columns to categorize the type and status of a controlled document.

The table below lists Controlled Document metadata columns and their intended use:

Column	Use
Related Service	Designates the service associated with the document (used in the same manner as in the Records document library).
QA Category	Designates the document type (procedure manual, training manual, work instruction, etc.).
SP Version	Lists the document's version (automatically populated).
Document Status	Lists the document's status (automatically populated). Options are Draft, Pending, and Approved.
Lab Effective Date	The date in which the current published major version was made effective at the laboratory.
Discontinued	Designates that no versions of the document are still being used by the laboratory.
External Source	Designates source of external controlled documents (e.g. ASTM, FBI, ANAB).
Standard Number	Unique identifier for external controlled documents when applicable.
Publication Year	Year in which an external controlled document was published. This may be different from the lab effective date.
Check In/Publish Comment	Lists any comments entered when the current version was published.
Approver Comments	Lists any comments entered by the approver of the current published version.

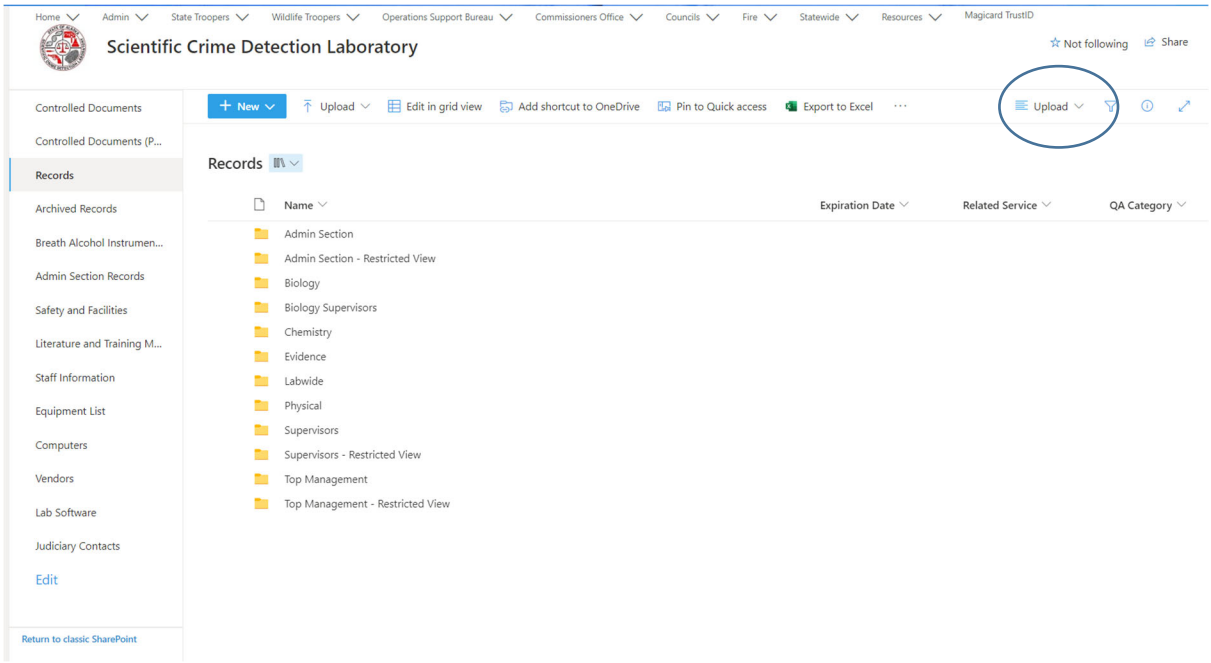
QUALITY ASSURANCE RECORDS

The laboratory maintains quality records in the Records SharePoint Document library, the LIMS system, or hard copy records. Examples of the quality assurance records include, but are not limited to, information from assessments, management reviews, corrective and preventive actions taken, discipline quality checks, validations, meeting minutes, and training /continuing education records. Hard copy records are often maintained in disciplines for ease of use in the laboratory. These records should be periodically scanned and archived when possible, to minimize storage of physical records. Hard copy documents that are digitized for storage can only be destroyed after a review of the scans for legibility and completeness is completed.

SHAREPOINT RECORDS LIBRARY PERMISSIONS

The SharePoint Records library uses permission groups to control access to site contents. In general, permission levels used are Full Control, Contribute, Approve, Read, and no access. All crime lab staff are added to the Crime Laboratory Contributors group. Permission groups also exist for each discipline, supervisors, technical leads, and top management. Laboratory personnel are added to groups dependent on their position and current duties.

The records library is designed to contain permission folders to manage record permission groups. Viewing records in Upload view provides the best understanding of the permission structure of the folders.

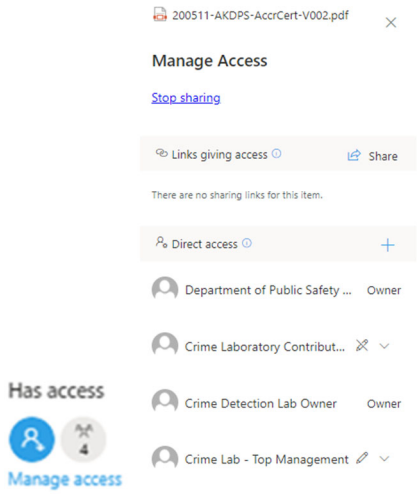


The title of the folder indicates who can edit content within the folder. For example, only members of Top Management can add and edit records within the Top Management folder; however, all lab staff can see the records in that folder.

A folder labeled “Restricted View” means only members of the Crime Lab – Supervisors permission group have access to see it or its contents. For example, the folder Top Management – Restricted View can only be edited by members of Top Management and can only be viewed by the Crime Lab – Supervisors permission group.

When navigating in Upload view it is best to think about who would need access to edit or delete the content and who should have access to see the content.

Access to individual documents can be viewed and managed (for those with appropriate permissions) through the details pane located next to the view menu.



DOCUMENT SETS

Document sets can be created within one of the permission folders to organize numerous similar documents. Document sets are like folders but can be tagged with metadata (information about the document). Documents that are uploaded or created within a document set will automatically be tagged with the document set's metadata.

There are two required metadata fields for every document in the Records document library (Related Service and QA Category) and a few optional fields that should be filled out when relevant (Staff Member, Vendor, Equipment ID, Expiration Date, etc.). Some of the metadata columns look up information from an associated list on the SharePoint site (Staff Information, Equipment List, and Vendors). Metadata from lookup fields are hyperlinks to more information about the associated tag.

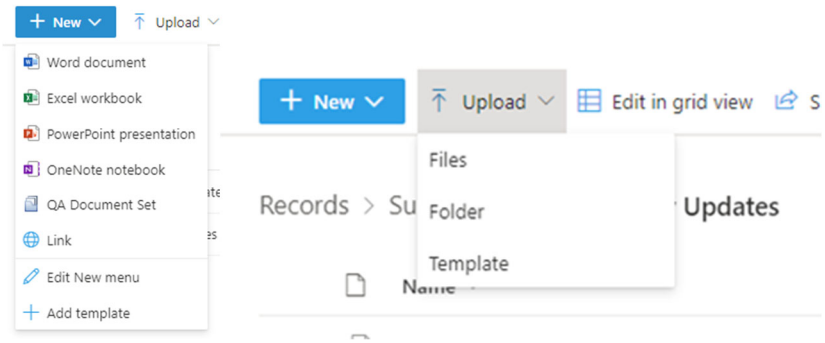
FILE NAMING CONVENTIONS

Although metadata is used to provide information about a document, file naming conventions should be consistent and informative. **When relevant, files should be named with a date (YYYY.MM.DD) followed by a brief description of what the file contains.** For example, a Word document recording minutes from a chemistry meeting that occurred on January 25, 2021 would be titled "2021.01.25 Chemistry Meeting".

ADDING RECORDS

The best method of adding records to the SharePoint records library is to utilize upload view as it shows the permission folders; however, documents can be added in the default "Active Documents" view.

New documents can be created in SharePoint using the new menu and pre-existing documents can be added to a document set by "dragging and dropping" or clicking the Upload menu.

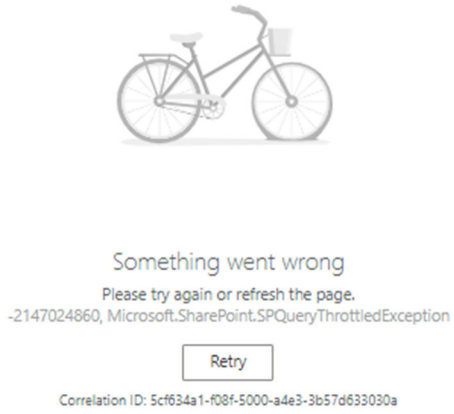


RETRIEVING RECORDS

The "Search" view displays all the documents outside of their respective folders and document sets. The documents can then be filtered by their metadata tags.

Each metadata column header has a drop-down menu for sorting, grouping, and filtering.

Note: Depending on the size of the document library (this is often the case in the Records library) group by or filter by can exceed the list threshold. If that occurs the following screen will appear.



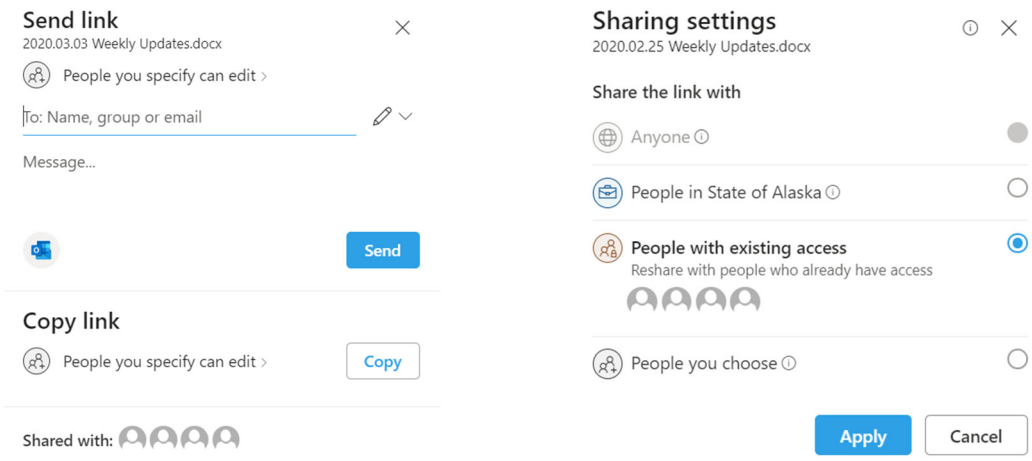
Retry your filtering/grouping by narrowing your search first.

The Filter Pane , located next to the view menu can also be used to assist with retrieval of records. The filter pane allows you to filter the current view by any metadata column. For QA category, you can click See All, and choose Tree View to see all QA Categories organized by ISO 17025 clauses.

The search bar function Search can also be used to locate records in SharePoint. This feature searches file names and the contents of some file types (Word documents, flat PDFs, etc.) for specific terms. This function should be initiated in the "Search" view (see above) as the document's library contents are searched outside their respective folders/document sets.

SHARING RECORDS

Clicking the share button located to the right of a file name creates a link to the file that can be sent to others for access.



Sharing links is preferred over sending copies of the actual document. It ensures that everyone is referring to the same version of the document when reviewing or editing it. If the person sharing has the appropriate permissions, they can modify who the link will work for, whether they can edit, and whether the document can be downloaded.

The default link setting is currently "People with existing access" which only allows people to access documents based on their current permissions. By clicking the arrow next to "People you specify can edit" the sharing settings can be changed to give access to "People in State of Alaska." **The preference for sharing links is to use the default setting because using "People in State of Alaska" can inadvertently give edit access and the ability to see draft documents.**

RECORD RETENTION

Laboratory records will be legible, appropriately stored and readily retrievable. Retention times for quality assurance records will be a minimum 10 years.

Disposal of records will follow the current version of the Alaska State Archives Records and Information Management Service Policies and Procedures Manual.

INFORMATION TECHNOLOGY SYSTEMS

Key Management is responsible for ensuring that the laboratory has access to the data and information needed to perform laboratory activities. ISO 7.11.1 The Laboratory utilizes various networked information technology devices to store case files, notes, manuals, protocols, and other electronic documents. The State of Alaska Office of Information Technology (OIT) administers the laboratory information technology systems.

ACCESS TO LABORATORY NETWORK RESOURCES

Permissions (read, write, delete) are granted by **OIT division staff** at the request of the **Chief**. **Discipline Supervisors** shall make requests to the **Chief** (who ultimately will decide on the level of access) on behalf of their staff and themselves. The **Chief** shall make requests of OIT division staff to grant/deny the requested permissions. Full permissions shall mean full control. Read only shall include read, read & execute, and list folder contents.

OFFICE OF INFORMATION TECHNOLOGY ACCESS REQUIREMENTS AND RESTRICTIONS.

To administration of the environment, OIT division staff maintain full administrative access of all systems and controls residing at the network hardware, and operating system levels.

- OIT staff will only access Forensic Laboratory information technology resources to the extent necessary to maintain normal operational status (e.g., Backup, connectivity, etc.) and shall make every effort to avoid direct contact with user data unless directed by the **Chief**.
- OIT will make every effort to coordinate efforts with the **LIMS administrator** or **Chief** when performing service, repair, and upgrades to information technology resources that may impact the Forensic Laboratory.
- Physical Access Security – Users (including OIT staff) obtain a badge to enter the building. The servers and storage are in access-controlled rooms.
- Login Access - OIT staff only, has administrative login access to the keyboard/monitor in the server rooms used by all servers.
- Individual server login access is possible only with OIT administrative credentials. – screens lock on servers after 10 minutes.

- Data backup - The laboratory complies with the OIT backup policy.

LABORATORY INFORMATION MANAGEMENT SYSTEMS (LIMS)

The ASCDL utilizes JusticeTrax LIMS-Plus, LIMS-Plus DNA, and Foray Authenticated Digital Asset Management System (ADAMS) as the primary LIMS systems for testing and calibration laboratory activities. Additional components of the technical record may be stored outside of the LIMS system as defined in the technical records section and discipline procedure manuals (see Technical Records (Case File)).

SECURITY

The laboratory verifies that all LIMS systems and any associated network storage locations are protected from unauthorized access, safeguarded against tampering and loss, operated in an environment that meets all provider and laboratory specifications, and maintained in a manner that ensures the integrity of the data and information (see above for network access restrictions). ISO 7.11.3

The ASCDL along with OIT ensures that the LIMS and associated storage locations record system failures. When necessary, system or LIMS failures will be evaluated through the laboratory policy for nonconforming work (see Quality Assurance Review Policy).

SHAREPOINT

The Office of Information (OIT) is responsible for the maintenance of the application and has full administrative access. Additional permissions are set by the laboratory's **LIMS administrator** (see Controlled Document Library Permissions and SharePoint Records Library Permissions).

The Breath Alcohol Instrument Records Library permissions are limited to the Chemistry section edit access.

JUSTICETRAX

User accounts and user security are created/assigned by the **LIMS administrator or designee**.

FORAY ADAMS

User accounts and access are managed by OIT upon request from the **Physical Discipline Supervisor**. Access accounts are primarily limited to the **Physical Discipline Personnel**.

VALIDATION OF LIMS ISO 7.11.2

The ASCDL will validate all LIMS systems utilized for collection, processing, recording, reporting, storage, or retrieval of data for functionality prior to use. This can include crystal report templates and controlled forms used to create final reports or perform calculations within the technical record.

Additionally, when there are changes, including laboratory software configurations or modifications to commercial off-the-shelf software those changes shall be authorized by the **LIMS Administrator**, documented, and validated prior to implementation. Any changes to software impacting the Forensic Biology discipline must also be authorized by the **DNA Technical Manager** prior to implementation. Changes to controlled forms utilized within a discipline to perform calculations are authorized by the approver of the form.

The following list provides examples of when a validation is required for LIMS or associated management/storage systems:

- Updates to the JusticeTrax LIMS-Plus Software
- Updates to the LIMS-Plus DNA Software
- Updates to Foray ADAMS Software
- Creating spreadsheets that perform calculations within locked cells
- Changes to Crystal Report templates that generate testing or calibration reports

The validation should be as extensive as necessary to verify appropriate functionality and documentation of the validation shall be retained. Considerations should be made to interfaces with other software used by the laboratory when determining what functions should be validated (see Method Development, Verification, and Validation for more information on validation requirements).

TRAINING

Laboratory personnel are provided training on JusticeTrax and SharePoint as part of the New Employee Training Program (NETP). Additional training on discipline specific aspects is provided in discipline training programs.

Disciplines are responsible for training on LIMS-Plus DNA and Foray ADAMS.

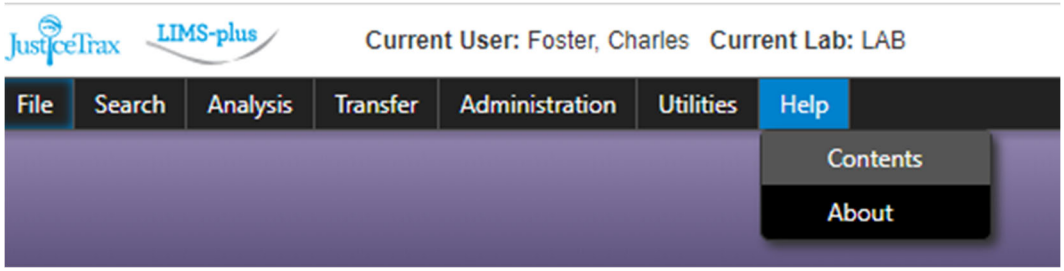
Laboratory procedure manuals and working instructions, including this manual, have instructions on usage of JusticeTrax and SharePoint.

JUSTICETRAX

JusticeTrax LIMS-Plus 3.8 is a web browser-based LIMS used by the Alaska Scientific Crime Detection Laboratory. The application is accessed through the following URL:

https://justicetrax.dps.alaska.gov/lims-plus

JusticeTrax has a help function available to outline how to use its core functions. ISO 7.11.5

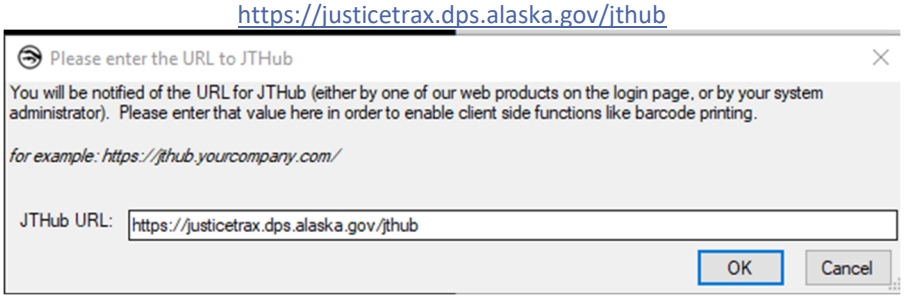


JTTRAY

The JTTray application must be installed on any computer that will be used to print barcodes in JusticeTrax LIMS-Plus 3.8. The installation file is accessed via the JusticeTrax log-in page:

Once installed, enter the URL to JTHub:

https://justicetrax.dps.alaska.gov/jthub



LIMS-PLUS DNA

LIMS-Plus DNA is only utilized by the Forensic Biology discipline. More specific instructions on its use and how to access the software are found in the Forensic Biology LIMS Work Instructions.

ADMINISTRATION

See the LIMS Administration Manual for more technical application and database administration procedures.

POWER BI REPORTS

LIMS metrics reports can be accessed here:

https://reports.dps.alaska.gov/Reports/browse/Public%20Safety/Crime%20Lab

Data is scheduled to refresh hourly on the hour.

FORAY ADAMS

ADAMS is a digital asset software program made by FORAY Technologies. ADAMS serves as the repository for digital evidence items as well as images taken during casework for the Physical Discipline (Latent Prints, Crime Scene, Firearms,

and Footwear). Access to ADAMS and the Digital Assets are limited to laboratory personnel approved by the **Physical Discipline Supervisor** (see Laboratory Information Management Systems (LIMS) for more information on LIMS Security)

ADAMS Web can be accessed here: https://adams.dps.alaska.gov/AdamsWeb/.

Instructions for ADAMS can be found in the Discipline Procedure Manuals.

COMPUTERS AND COMPUTER SUPPORT

Laboratory personnel are issued state computing equipment necessary for the completion of laboratory activities. Laboratory personnel are trained on Criminal Justice Information System (CJIS) processes prior to gaining access to CJIS materials and are expected to follow appropriate protocols to prevent unauthorized access to computers.

The State of Alaska Department of Public Safety Operating Procedures Manual Chapter 119 outlines employee expectations for electronic information, computer usage, and communications.

The State of Alaska OIT maintains computer equipment for the laboratory. Laboratory personnel who need IT support can fill out a help desk ticket here: OIT Portal - OIT Service Portal

The DPS Technical Support email is dps.support@alaska.gov and the IT help desk phone number is 907-269-5678.

EVIDENCE AND CALIBRATION ITEMS

RECEIVING EVIDENCE AND CALIBRATION ITEMS

PHYSICAL EVIDENCE RECEIPT

Physical evidence is received at the laboratory by the ASCDL evidence section via in-person or carrier delivery. All physical evidence shall be received by **evidence section staff** except in instances as approved by the **Evidence Supervisor** or a member of **Top Management**.

Apart from NIBIN submissions and proficiency test samples, all physical evidence accepted by ASCDL for scientific analysis (technical testing report) shall be accompanied by the current version of the Request for Laboratory Services Form (RLS). Digital evidence received by the laboratory follows the electronic submission policy (See Evidence Received via Electronic Submission for more information on submission of digital images) Note: At the discretion of the **Evidence Supervisor** prior versions of the RLS may be accepted.

The NIBIN Request Form will be used in lieu of individual RLS forms to document what items were included in a specific NIBIN submission and the Proficiency Test Assignment and Completion Form will be used to document proficiency testing items.

When a new RLS or NIBIN Request Form is made available, the laboratory will issue to the customer an implementation date that allows customers time to distribute the new document to the necessary users prior to mandatory compliance.

All physical evidence received by the laboratory is checked for the following:

- All items present are listed on the RLS and no discrepancies exist between the evidence and RLS
- Agency Case Number and Agency Item Number present on all evidence items
- Exterior evidence packaging is sealed with a proper seal (see Proper Seals for Submitted Evidence)

If any conditions adverse to evidence quality exist, if there is a discrepancy between an RLS and the evidence received, if the request for services is unclear, or if the suitability of an item of evidence for examination is questionable, the instance shall be reconciled and documented in the LIMS. See Chain of Custody for more information on how evidence with discrepancies is received and logged.

PROPER SEALS FOR SUBMITTED EVIDENCE

An acceptable seal is one that prevents the ready escape of the evidence and will be clearly damaged or altered if broken or attempted to open. Acceptable seals for submitted evidence include the following (see Proper Laboratory Seals for internally applied seal requirements):

- Evidence items shall be sealed by using evidence tape, packing tape, self-sealing evidence bags, or by heat sealing
- Submitting agency seals must be marked with the sealer's initials, at a minimum, across the seal
- Intact manufacturer seals do not need to be re-sealed with additional tape
- If there are multiple layers of packaging or evidence tape, the outermost seal must be properly applied and marked

The following are examples of unacceptable seals on submitted evidence:

- Unsigned seals
- Seals that allow, or have the potential to allow, the escape of the item contents. Such as drugs spilling from the corners of an envelope
- Multiple layers of packaging or evidence tape where the outermost seal is not signed
- Seals marked with a badge number or lines instead of initials
- If it is unclear where the seal is, such as when bags are folded over
- If the seal is intact but is already showing signs of failure or potential failure
- Seals that are signed underneath the tape
- Items submitted in boxes where only one side of the box has a proper seal
- Self-sealing bags where the markings are not on the seal. Such as a "Sealed By" section that is not on the seal itself

Evidence received without a proper seal shall be remedied by placing the evidence in laboratory provided packaging and/or applying new initialed and dated tape to securely seal the packaging to protect the evidence inside. Remediation of evidence seals shall be documented in the technical record. One exception to this is when seized drug evidence is received in heat sealed packages that are considered appropriately sealed upon arrival. These items are repackaged in a labortory self-sealing bag out of an abundance of caution and therefore do not require documentation of remediation in the technical record.

EVIDENCE RECEIVED VIA ELECTRONIC SUBMISSION

The Laboratory accepts digital images for footwear intelligence and friction ridge via electronic means. The appropriate Discipline Procedure Manual addresses the procedure that is followed and how the evidence receipts are documented.

Digital evidence (photographs) collected during crime scene response are uploaded to the digital imaging server and requests for testing on these items can be documented in case activities by the crime scene analyst in place of an RLS. Documentation shall include the requesting agent and what services were requested.

CALIBRATION ITEM RECEIPT

Calibration items are identified by their unique instrument serial number. The Breath Alcohol Procedure Manual outlines procedures for receipt of calibration items.

INDIVIDUAL CHARACTERISTIC DATABASE ITEMS

The appropriate Discipline Procedure Manuals will outline procedures for the operation of individual characteristic databases. The CODIS individual characteristic database items are treated as reference materials.

Each CODIS database sample under the control of the Laboratory is uniquely identified. Individual characteristic database samples under the control of the Laboratory will be uniquely identified. For more information on Individual Characteristic Databases see (Individual Characteristic Databases).

LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS) ENTRY

LABORATORY CASE NUMBERS

Evidence received at the ASCDL will be assigned a unique identifier comprised of the Laboratory case number and item number. ISO 7.4.2, AR 7.4.2.1 This identifier is retained and documented in the LIMS. The laboratory case number shall be formatted as follows in the LIMS:

> YY-##### where YY is the last two digits of the calendar year and ##### is the five-digit number assigned consecutively by the LIMS, beginning with the number one (00001) assigned to the first case submitted in the calendar year.

Only one laboratory number should be assigned per submitting agency case number. A LIMS generated laboratory case number shall be assigned upon receipt of the first RLS for a case. Any supplemental submissions should be assigned the same laboratory case number as the original submission. If multiple agencies are involved in one event or two laboratory case numbers are otherwise assigned to the same event the laboratory case numbers will be cross referenced in the LIMS.

When new cases are created the LIMS searches for other cases created with the same agency case number. Additionally, the use of the Agency File Number Mask feature displays the proper known format of agency case numbers to prevent duplicate entries based on differences in case mask.

The Alaska Department of Public Safety (DPS) submitting agency is divided into individual posts. When a DPS case is being entered into LIMS, **the associated agency case number will be entered and searched using the Alaska Department of Public Safety agency not the individual posts**. After the case has been created the DPS post agency may be added. The DPS agency case number will be entered for all DPS post agencies added to the case. This method of entry helps prevent duplicate case entry.

LOGGING EVIDENCE INTO LIMS

Evidence is logged into LIMS by the evidence staff following the procedures in the Evidence Room Manual. The ASCDL maintains the item number designations assigned by the submitting agency when logging evidence. For this reason, no duplicate item numbers can exist within a case. If, upon receipt, duplicate item numbers exist, the discrepancy will be remediated and documented in the LIMS prior to proceeding with case entry.

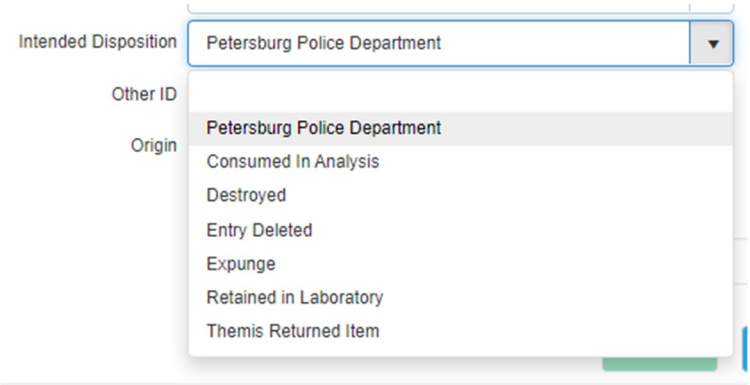
Barcode labels for each item of evidence accepted by the laboratory shall be generated with the LIMS. Each item shall have only one active barcode associated with it.

The RLS and any associated supporting documentation, shall be uploaded into the appropriate case in the LIMS. This documentation should be stored as one PDF per case submission in the imaging module and will have the date in the file title. For NIBIN submissions, the associated NIBIN Request Form shall be uploaded to each case created from that form.

DESIGNATING SUBMITTING AGENCY AND INTENDED DISPOSITION OF EVIDENCE

All agencies assigned to a case will be available in the dropdowns associated with "Submit. Agency" and "Intended Disposition" for evidence entered in that case. The appropriate case agency will be selected when the item is created in LIMS. When entering "Submit. Agency", the "Agc Rep" field should be left blank. For Alaska Department of Public Safety, any associated post agency should be used in these fields instead of Alaska Department of Public Safety.

An evidence item's disposition indicates the "final resting place" for that item and is used to communicate the disposition of items to the customer on the report. AR 7.4.1.1 e Below is an example of options for an item's intended disposition (accessed through Edit Evidence):



This list will include any agency and all storage locations designated as disposition locations in LIMS.

Apart from some forensic biology evidence types such as sexual assault kits, known buccal swabs, and extracts, the intended disposition for all evidence received should be marked as the submitting agency or their designee. If upon review, it is determined that an item of evidence needs to be retained at the laboratory, the reviewer will change the intended disposition from the submitting agency to "Retained in Laboratory".

If an item has already been returned to the submitting agency and the Intended Disposition isn't marked a such, the disposition must be changed before issuing future reports listing that item.

OTHER DISPOSITION AND HOLD LOCATIONS

The table below lists other disposition locations and their purpose:

Location Name	Purpose
Case Transfer	Used to transfer an item in one case to another. See Electronically transferring evidence to a different case (Case Transfer) for further protocols on how to use Case Transfer.

Combined Items	Used to transfer multiple items into a newly created single item.
Consumed in Analysis	Used for sub-items such as DNA extracts when they are consumed in analysis.
Destroyed	Default location used to document destruction of an evidence item
Digitized	Used to document when contents of a Latent Case File Archive envelope have been scanned to a digital asset management system (e.g. Foray) and shredded after the associated physical case file was entered into LIMS for tracking purposes. The comment associated with the transfer to Digitized needs to indicate where the digitized items are stored (e.g. Foray).
Entry Deleted	Used to document "deleting" a LIMS entry (see "Deleting" Items)
Expunge	Specific wording used when a convicted offender/arrestee DNA database sample needs to be removed/destroyed
Historical Returned Item	Used as the "then to" receiving location when entering an initial chain of custody for an item that was previously received and returned, but the chain of custody was recorded outside of the current LIMS (e.g., Beast LIMS, paper case file)
Lost	Used to indicate an item of evidence is lost
Retained at Lab	Evidence is not transferred to this location in LIMS; it is only used to indicate that an item is to be retained at the lab (usually in a hold location).
Themis Returned Item	Used for migrated Themis items that were marked as returned.

LIMS storage areas can be designated as hold locations through system administration. In general, long term storage locations within the laboratory will be designated as hold locations. When items of evidence are transferred to a hold location, the Hold at Lab property is applied. The use of intended disposition and hold locations is preferred over staff manually applying the Hold at Lab property to items of evidence.

EVIDENCE AND CALIBRATION ITEM HANDLING

CHAIN OF CUSTODY

The LIMS is used to track chain of custody of all evidence items at the ASCDL. The laboratory initial chain of custody for an item of evidence begins at item creation in the LIMS.

The initial chain of custody in LIMS for most physical items will begin with the agency representative and will go to EVIDINTAKE. The date and time associated with this transaction will be the date and time the items were received by the laboratory as noted on the package or RLS.

The tracking number for any items received via carrier will be entered into the notes field of the initial COC transaction and the carrier listed in the via field.

From	Agency	PIN	To	Agency	PIN	Container	Date/Time	Via	Note
Agency Rep,	SEW	☐	EVIDINTAKE		☐		02-01-2022 12:05:00 PM	USPS	70192970000019408225
EVIDINTAKE		☐	Gilchrist, Madeline		☑		02-02-2022 12:38:52 PM		
Gilchrist, Madeline		☑	CHEM1		☐		02-02-2022 12:40:53 PM		

For evidence items received in-person the name of the **evidence staff member** that signed the RLS will be entered into the notes field of the initial COC transaction.

From	Agency	PIN	To	Agency	PIN	Container	Date/Time	Via	Note
Adams, Brandon	ANC	☐	EVIDINTAKE		☐		02-03-2022 10:55:00 AM	In Person	Cameron Jefts
EVIDINTAKE		☐	Gilchrist, Madeline		☑		02-03-2022 03:45:10 PM		
Gilchrist, Madeline		☑	E07		☐		02-03-2022 03:47:31 PM		

The **evidence staff member** who logs the case into the LIMS and generates the initial chain of custody is the staff member who removed the item from EVIDINTAKE. This is not always the same person who physically received the items. The **evidence staff member** logging the evidence items creates the initial chain of custody when the item is created in LIMS based on the information that was recorded on the package or RLS when it was received.

PENDING ITEMS (EVIDINTAKEPEND)

If, during intake, any conditions adverse to evidence quality exist, if there is a discrepancy between an RLS and the evidence received, if the request for services is unclear, or if the suitability of an item of evidence for examination is questionable, the item(s) will be logged into the LIMS as they appear on the RLS, and then be transferred to the location EVIDINTAKEPEND while the evidence staff member awaits the information needed to complete logging the case.

Once the discrepancies are reconciled, the item(s) will be transferred to a storage location or laboratory staff member. In the rare circumstance the discrepancies are not able to be reconciled by laboratory staff, the item(s) will be returned to the submitting agency for correction.

From	Agency	PIN	To	Agency	PIN	Container	Date/Time	Via	Note
Agency Rep,	SEW	☐	EVIDINTAKE		☐		02-01-2022 12:05:00 PM	USPS	70192970000019408225
EVIDINTAKE		☐	Gilchrist, Madeline		☑		02-02-2022 12:43:19 PM		
Gilchrist, Madeline		☑	EVIDINTAKEPEND		☐		02-02-2022 12:45:53 PM		

On occasion, items may remain in the EVIDINTAKE or EVIDINTAKEPEND locations for an extended time. During the evidence intake portion, the evidence is either under seal when received in person or sealed in a mailing package until processed and accepted into the lab. The intake table is also in view of the evidence room cameras.

CHAIN OF CUSTODY EDITS

All evidence transfers shall be documented in the chain of custody in the LIMS each time an evidence transaction takes place.

In instances where the electronic chain of custody in LIMS is determined to be incorrect the electronic chain of custody can be edited by the **LIMS Administrator or designee**. Laboratory personnel shall document any requested changes to the electronic chain of custody in the Chain of Custody Edit Request Form. This form is utilized to document any changes that are made, what information was used to determine the accurate chain of custody, and who made the edits.

The laboratory personnel requesting the Chain of Custody edit should fill out the form and title it using the format COC YYYY.MM.DD INT where the date is the date of the request and the initials are the initials of the requestor.

The form is uploaded to the appropriate SharePoint document set and a case activity (LIMS-Chain of Custody Edit category) is created containing the title of the Chain of Custody Edit Form in all cases requiring updates.

Chain of Custody Edit Request Forms are not needed for corrections to the initial chain of custody when identified during the evidence intake process and review. These errors are the result of data entry errors when hand-typing the initial chain of custody and are identified prior to the evidence leaving the evidence room. Errors in the initial chain of custody discovered after the item has left the evidence room require a Chain of Custody Edit Form.

Note: The best mechanism of notifying the **LIMS Administrator** that the edit is needed is by posting the title of the Chain of Custody Edit Form in the Quality Assurance channel in Teams.

ELECTRONICALLY TRANSFERRING EVIDENCE TO A DIFFERENT CASE (CASE TRANSFER)

In most instances, evidence from one case can be related to another case for analysis purposes; however, electronically transferring evidence from one case to another is allowed in limited instances but requires written approval by a member of **Key Management** to be documented in the case activities when the transfer is not completed by a member of **Key Management**.

When performing a case transfer of evidence items:

- Scan the items from the current storage location to a **laboratory employee** and from the **laboratory employee** to the electronic storage location “Case Transfer.”
- Enter the case number that the item is being transferred to in the notes field of the transfer window.
- Update the disposition type for the item to “Case Transfer” in the case that the item is being transferred out of.
- Add the case the item is being transferred into as a related case in the Case Info tab in JT with a note of “Case Transfer” and the item number being transferred.
- In the new case, create the transferred items as new items with the same information logged in the original case.
- The chain of custody for the transferred items in the new case will start at “Case Transfer” and the note field will include the case number of the case the item was transferred from.

DIGITAL EVIDENCE CHAIN OF CUSTODY

For electronic submissions of digital evidence, the discipline staff member creates the case in JusticeTrax, if it does not already exist. A virtual evidence item is created which houses the initial chain of custody for the digital evidence received. This chain of custody entry contains who or where the evidence was received from, the mechanism for receipt, the analyst who completed the transfer, and the final transfer to the digital imaging server. The following is an example of the chain of custody for an electronic submission.

Chain of Custody : FW Image | IMG_5388.jpg

From	Agency	PIN	To	Agency	PIN	Container	Date/Time	Via	Note
Viator, Brandon M	DPS	☐	Hughes, Sherri		☑		10-03-2024 09:27:42 AM	Email	
Hughes, Sherri		☑	DIGITAL IMAGING SERVER		☐		10-03-2024 09:27:44 AM		

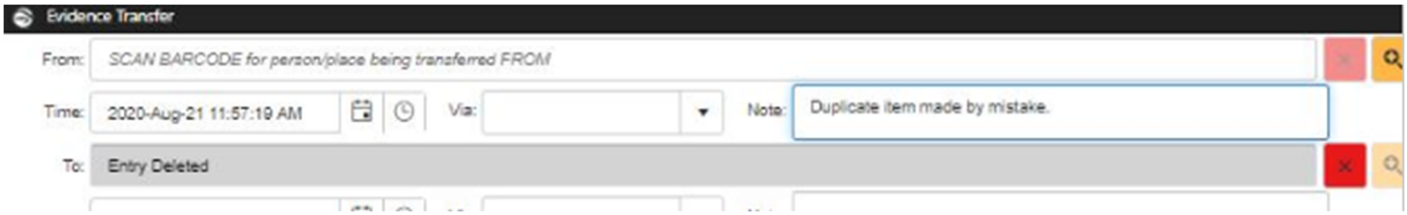
Once evidence is transferred to the digital imaging server no further location changes occur in JusticeTrax but access to the digital evidence item is tracked within the ADAMS software.

ADAMS software contains a “Chain of Custody” for all assets that records the date and time an asset was accessed, who accessed it, and what occurred (export, view, added, edited). All modifications to an asset result in an additional copy retained in ADAMS.

“DELETING” ITEMS

When an item has been created by mistake or otherwise needs to be deleted it is transferred to the disposition location “Entry Deleted”. This preserves a record of the item and the reason for deletion. The following are instructions for use of the disposition location.

Transfer to disposition location “Entry Deleted”. Document why this was needed in notes field. Also edit the item description to include “(Entry Deleted)” so that it is readily apparent.



PHYSICAL EVIDENCE STORAGE

STORAGE AREA ACCESS

Evidence storage areas are secured and have limited and controlled access. The storage conditions and procedures are designed to prevent loss, deterioration and contamination as well as maintain the integrity and identity of the evidence.

Access to the laboratory evidence vault is limited to **evidence staff members**, **Key Management,** and **Maintenance Specialists**. Additionally, Alaska State Troopers (AST) evidence is also stored in the evidence vault and **AST Evidence Staff** also has evidence vault access. Access to discipline evidence rooms/areas and long-term storage areas are limited to designated personnel.

Evidence stored in long term storage will be sorted in laboratory case number order within the location. For Bio Evidence 1 and 2, care will be taken to ensure that items removed from a location for more testing are returned to the same location if possible.

Each discipline evidence room has incoming and outgoing evidence storage locations that accommodate evidence transfers from the evidence vault to the analysts prior to analysis and at the conclusion of analyst’s need for access to the evidence.

Laboratory personnel are provided personal evidence storage areas for evidence during the course of examination. If the Forensic Chief or designee enters a Forensic Scientist’s/Technician’s personal evidence storage area, the transaction shall be documented in the case activity of the LIMS for all cases that were subject to the access.

CONVENIENCE PACKAGES

Clear plastic folders are available to consolidate and organize cases with small items during evidence storage. The folders should be used whenever practical for smaller items in a case. The case number should be visible through or adhered to the outside of the convenience package for easy case reference. The folders should be easy to file, not bulging or rounded.

More than one folder may be used for a case. If a case has one large item and numerous small items in a folder, the large item should be stored as near as possible to the clear plastic folder storage area.

PHYSICAL EVIDENCE HANDLING

Evidence items in the custody of laboratory personnel shall be sealed properly and stored in evidence storage rooms or personal evidence storage areas when not actively being examined. Evidence in the process of being examined shall be maintained in a manner to avoid loss, contamination and/or deleterious change but still allow easy access by the examiner during the examination process. Containers/items shall be re-sealed, as soon as practicable, upon completion of analysis and retained securely until transferred. AR 7.4.1.1 a) 2

Examination of evidence procured from the laboratory evidence unit, or by any other means, should be performed as soon as possible and completed within 60 days of an analyst receiving the evidence. Every month, evidence in possession of staff over 60 days is reviewed, and documentation is maintained explaining any deviations from the 60-day requirement. If an examination cannot be completed within 60 days, the **case analyst** should notify the **Discipline Supervisor**.

Evidence which may experience deleterious change without refrigeration shall be placed in an evidence refrigerator as quickly as possible and remain refrigerated until examined or transferred.

Evidence which may experience deleterious change due to breathability of the packaging in which it was submitted should be addressed and repackaged into laboratory provided breathable packaging.

When an employee recognizes that evidence has been contaminated so as to alter or affect the results, the **employee** shall notify their **supervisor** and initiate the appropriate corrective action.

If seals are not intact on evidence packages containing controlled substances or currency, the **Forensic Scientist or Technician** will document the condition of the package in the LIMS. A witness shall attest to the condition of the package in the case activities of the LIMS.

If tampering is suspected, the discipline supervisor shall be immediately notified. The **Discipline Supervisor** shall notify **Top Management** and they shall determine the appropriate course of action.

Any questions regarding the proper storage and/or packaging of evidence shall be directed to the discipline to which the evidence is being assigned.

OPENING PHYSICAL EVIDENCE ITEMS

All sealed evidence containers opened by laboratory personnel will be identifiably marked by the person that opened the item and include their initials and the date the item was opened.

RESEALING/REPACKAGING PHYSICAL EVIDENCE

With the exception of evidence received in paper bags, evidence should be replaced in the original container whenever possible after analysis unless a Discipline Procedure Manual specifies an alternate method. Evidence shall be returned with the original container in a laboratory provided package if the evidence is not replaced in the original container.

Evidence items received in paper bags will be repackaged by the Forensic Scientist into laboratory provided packaging prior to being returned to the evidence vault after analysis. If laboratory personnel must vary from this practice, it must be documented in the LIMS.

All outer evidence containers must have the laboratory case number and item number visible. When laboratory packaging is used agency identifiers/barcode shall be visible through the packaging.

If it is impractical to seal an evidence item in a package, the item shall be tagged securely, and the tag shall contain all required identifying information.

All outer evidence containers sealed by laboratory personnel must be sealed with a proper laboratory seal. Seals applied to evidence by laboratory personnel shall be marked with the initials of the person sealing the evidence and the date sealed. Whenever possible these markings should cross the barrier between the seal and the container.

PROPER LABORATORY SEALS

A proper laboratory seal is one that prevents the ready escape of the evidence and will be clearly damaged or altered if broken or attempted to open. All sides of a package that are not intact manufacturer seals must be sealed to be considered properly sealed. Examples of proper laboratory seals include:

- Self-sealing evidence bags
- Evidence tape
- Heat seals

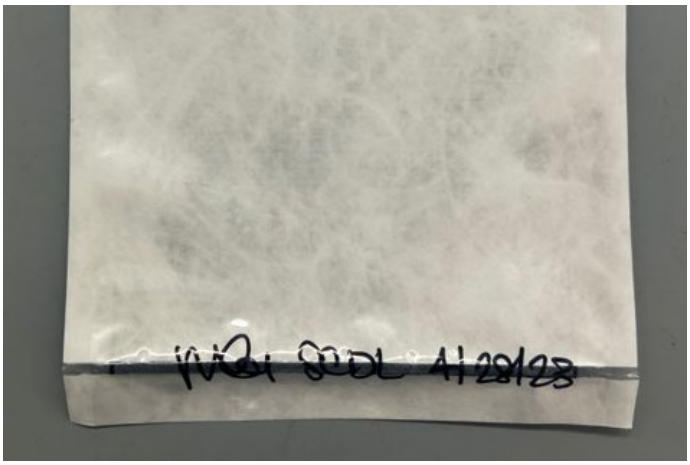
The following are not considered acceptable laboratory seals:

- Clear packaging tape
- Paper bags sealed with tape (envelopes are not considered paper bags)

Below are examples of various laboratory provided packaging with appropriate seals applied.

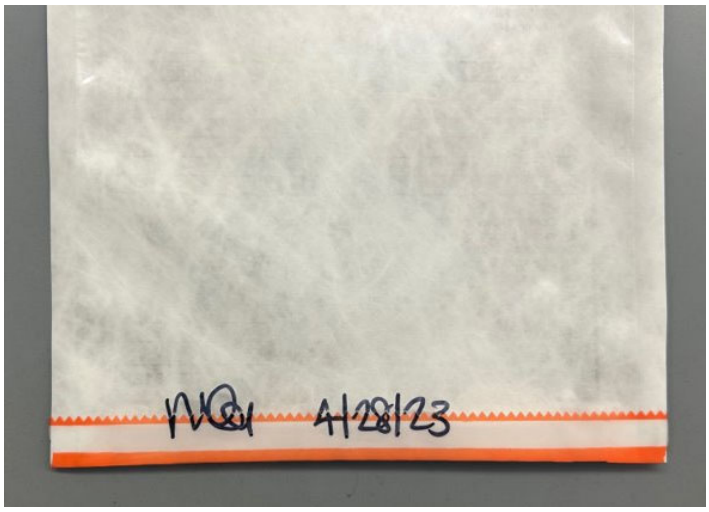
HEAT-SEALABLE POUCH WITH HEAT SEAL

Markings can be placed on either side of the pouch if they cross the seal but are easier to see on the plastic side.



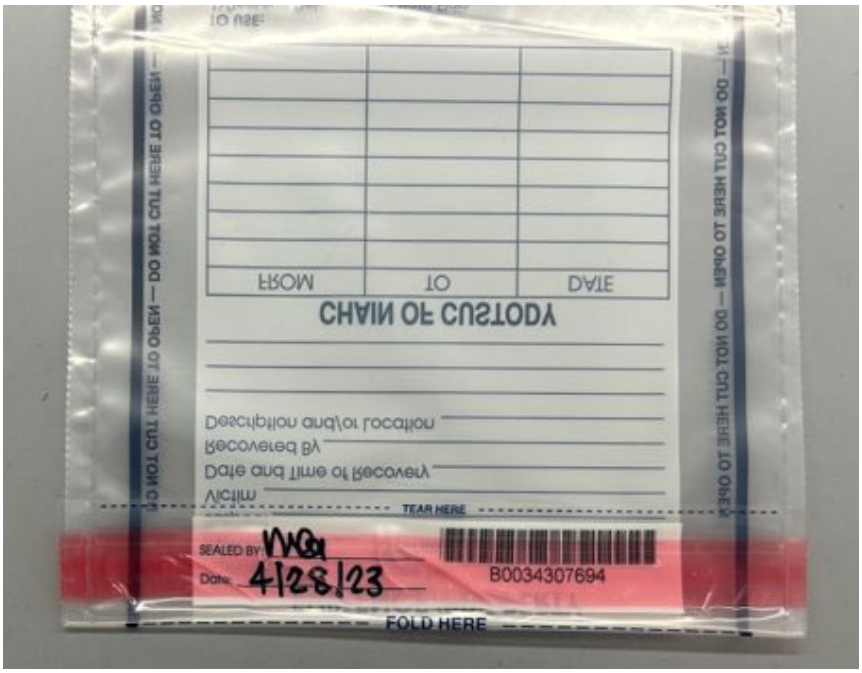
HEAT-SEALABLE POUCH WITH EVIDENCE TAPE SEAL

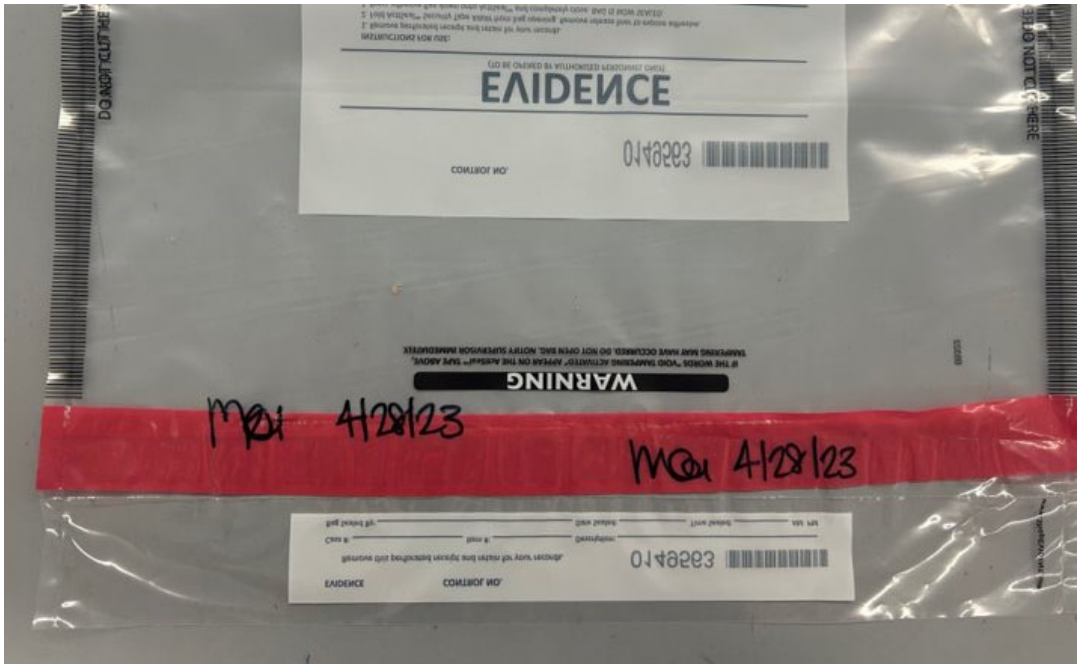
If heat-sealing is not practicable, evidence tape may be used to seal these pouches. Markings should cross the barrier between the seal and the pouch.



SELF-SEALING TAMPER EVIDENT BAGS

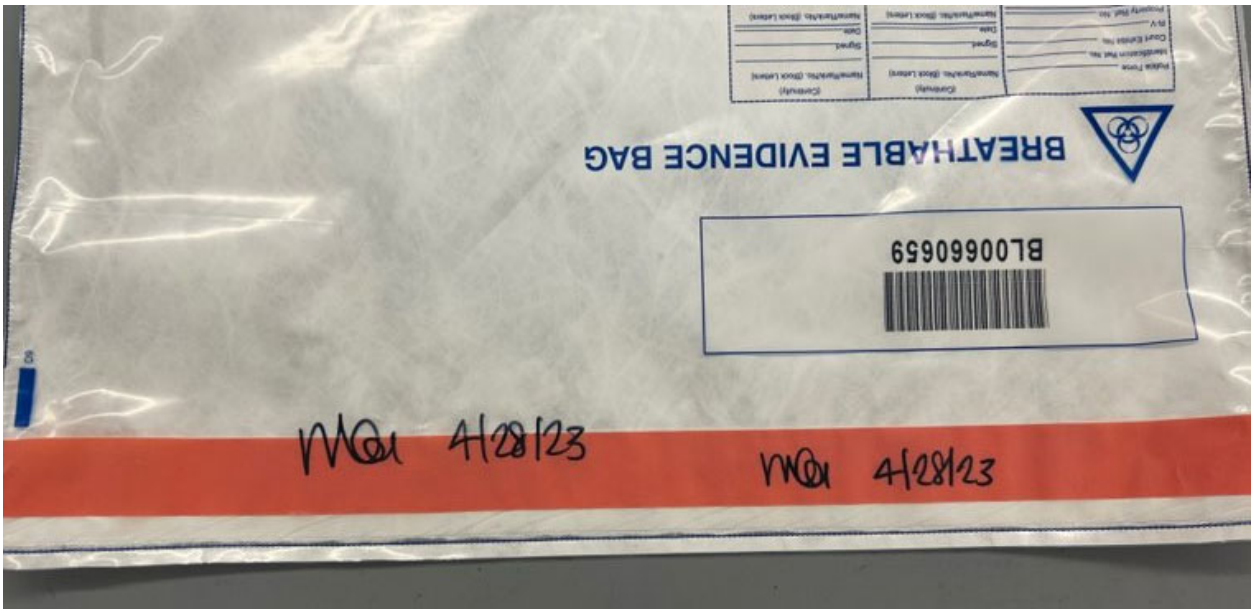
These bags are tamper evident and a VOID marking will appear if the seal is removed. Markings may cross the barrier between the seal and the bag, but it is not necessary.



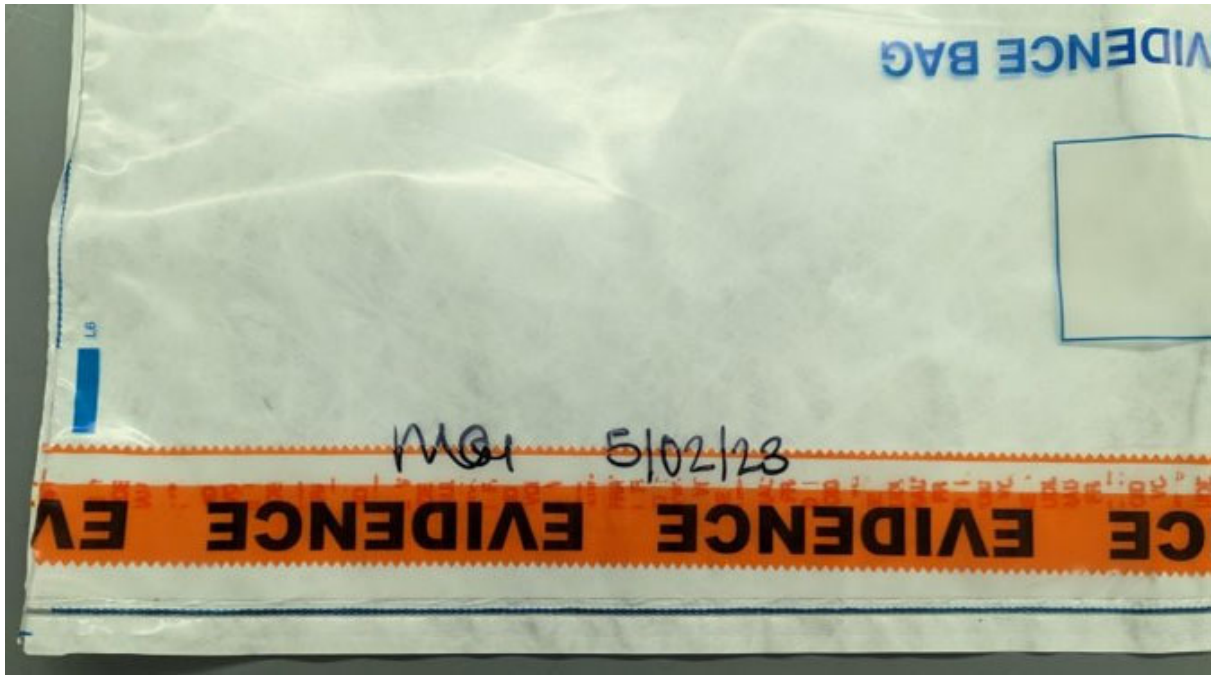


SELF-SEALING TAMPER EVIDENT BREATHABLE BAGS

These bags are tamper evident and a VOID marking will appear if the seal is removed. Markings may cross the barrier between the seal and the bag, but it is not necessary.

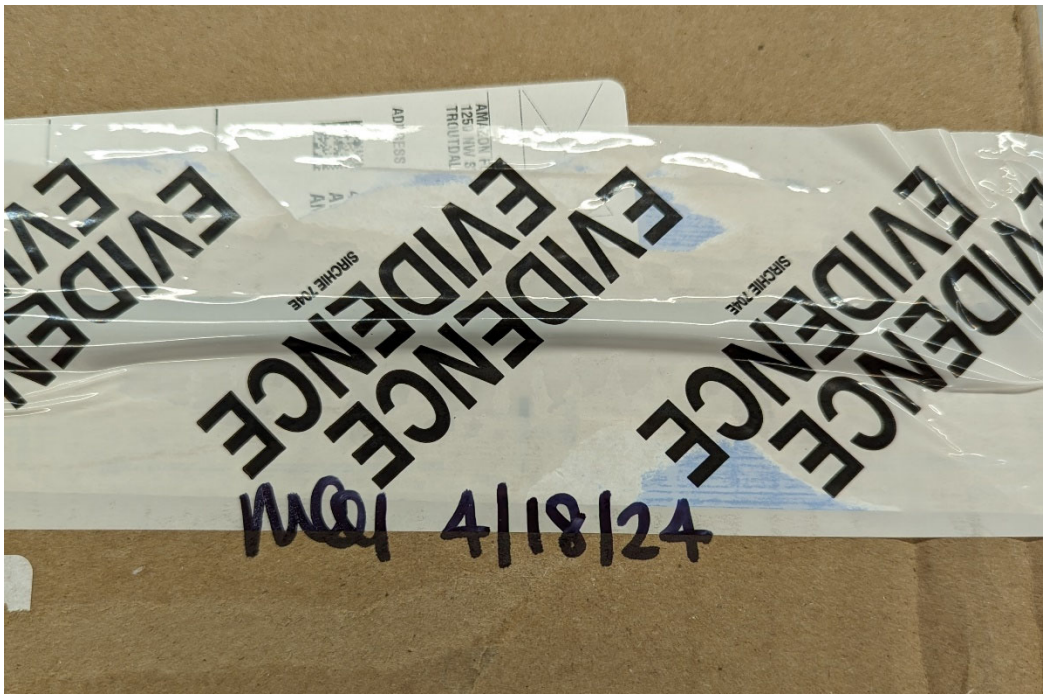


These bags may have defective seals. If a defective seal is identified, it should be completely removed. The bag shall then be sealed with evidence tape and the markings should cross the barrier between the seal and the bag.

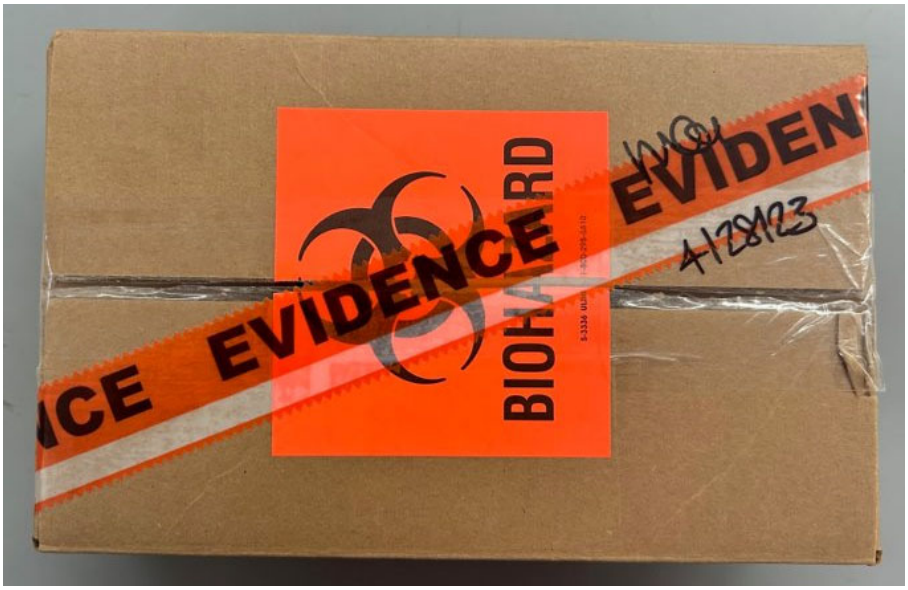


SEALING BOXES WITH EVIDENCE TAPE

When a box is sealed with evidence tape only and no packaging tape the markings should cross the barrier between the seal and the packaging.



When sealing a box with clear packing tape prior to adding an evidence tape seal: ensure that the evidence tape is not directly over the packing tape. This will prevent the ability to remove the seal by removing the packing tape. Both the top and bottom openings of the box must be properly sealed, unless the bottom opening is an intact manufacturer's seal.



DIGITAL EVIDENCE STORAGE AND HANDLING

Digital evidence is stored in the digital asset management system, Foray ADAMS. Access to the digital asset management system is limited and once assets are uploaded, they are unable to be deleted. All access and modifications to assets are tracked within ADAMS and the original asset is retained, any modification is stored as a separate image. (see Digital Evidence Chain of Custody).

CALIBRATION ITEM STORAGE AND HANDLING

Calibration item condition is recorded upon return to the laboratory. Deviations from normal conditions will be documented in the instrument records. For breath test instruments where the laboratory is not the owner the customer will be notified if an item is not suitable for calibration and cannot be repaired. The record of this communication is kept in the instrument record.

The Breath Alcohol Procedure Manual outlines how calibration items are stored, handled, and transported.

EVIDENCE INVENTORY

A full inventory of the Evidence Vault, Discipline Storage Locations, and Bio Evidence 2 should be performed annually at a minimum. An inventory of open locations in Bio Evidence 1 should be performed annually. Records associated with Evidence Inventories are located in SharePoint.

RETURNING EVIDENCE

Evidence can be returned to the submitting agency or designee when all requests related to an item have been completed, when notification is given that evidence is ready to be returned, or when a communication is received from the submitting agency that testing of case evidence is no longer required. **Evidence personnel** utilize Crystal Reports or documentation provided by **Discipline Supervisors** to determine which items are ready to be returned.

Evidence may be returned to an agency representative in person at the lab or via traceable delivery such as USPS Certified Mail, FedEx, UPS, or Goldstreak. For evidence returned via traceable delivery, a document showing proof of delivery will be uploaded to the case attachments once delivery is confirmed.

MANAGEMENT OF REQUESTS

REQUEST ENTRY IN LIMS

All requests for laboratory service (RLS) submitted to the crime lab require data entry of the case into the Laboratory Information Management System (LIMS). Request entry generally occurs in the **evidence section** prior to review of the request by the **Discipline Case Managers** (see Case Management Policy for more information on case management).

The table below lists all analysis categories from the Request for Laboratory Services form and the associated LIMS service request that needs to be made when evidence is received:

RLS Analysis Category	LIMS Department	LIMS Service	Project FORESIGHT Investigation Area
Alcohol (Blood or Beverage)	Blood Alcohol	Blood Alcohol or Beverage Alcohol depending on evidence received	Blood Alcohol
Drug Toxicology	Toxicology	Drug Toxicology	Not Reported (Outsourced)
Forensic Biology (DNA)	Forensic Biology	Forensic Biology Analysis	DNA Casework
Fingerprints	Physical	Latent Print Processing	Fingerprints[1]
Footwear Impressions	Physical	Footwear Processing	Marks and Impressions[1]
Firearm/Toolmark	Firearms	General Firearms Analysis for firearm-related items	Firearms and Ballistics
Firearm/Toolmark	Firearms	Toolmark Examination for other tools	Firearms and Ballistics
NIBIN Only	Firearms	NIBIN	Not Reported
Seized Drugs	Controlled Substances	Controlled Substance Analysis	Drugs – Controlled Substances
Serial Number Restoration	Firearms	General Firearms Analysis	Not Reported

[1]Overall investigative areas could contain more than one service request which are related (e.g., Latent Print Examination being a secondary (child) request related to the original Latent Print Processing request). In these situations, only service requests without any children requests (i.e., the last request to be completed) will be considered when determining number of completed cases for an investigative area.

For **Anchorage Police Department** NIBIN submissions, a Latent Print Processing service request will also be created if the item type listed on the NIBIN Request Form is firearm. A request reason of LP-NIBIN will be added to these NIBIN requests.

A service request will not be entered for Sexual Assault Kit Storage Only items. The SA Kit evidence custom form will be used to track review instead.

Apart from requests submitted through the NIBIN Request Form, all requests will initially be assigned to the staff member *Review, Needed. This assignment will be changed to unassigned after the request has been reviewed by the **Case Manager** indicating the request has been reviewed and is available to be worked.

SUBSEQUENT SUBMITTALS FOR A PREEXISTING CASE

The **evidence section** will enter all subsequent submittal requests using the same process as outlined above. Upon review, the **Case Manager** will determine whether the subsequent request will be cancelled and consolidated with a preexisting request or worked as a separate request.

In general, subsequent requests will be cancelled/consolidated when the initial request is still unassigned. If a subsequent request is cancelled, items related to the cancelled request will be related to the preexisting request (see Relating Evidence to a Request for exceptions). The reason for cancelling the request will be recorded in the Request Management custom form (see the Request Management Custom Form (Pending and Cancelling Requests for more information).

RELATING EVIDENCE TO A REQUEST

Relating evidence to a request serves two purposes: ensuring that the associated report addresses all items requested for a specific type of testing (i.e., service type) and making evidence available to record associated testing results in the LIMS.

The **evidence section** relates items requested on the RLS to the appropriate LIMS services(s) regardless of whether the laboratory will be testing the item. If the **Case Manager** or **analyst** later determines that an item will not be tested, or an item is cancelled but other items are still being reported, the item should not be unrelated from the request. It should appear on the report and the documentation of why testing was not completed retained. (see Requesting/Retrieving Evidence for more information on how an analyst can mark an item as Not Retrieved/Not Analyzed.)

When a sub-item (see Subitemizing Evidence) is created during one testing process to be tested by another service (e.g., an isolated stain/swab sub-item created during biological screening), the created item will also be listed on the report to notify the customer that something was created or preserved for future testing. AR 7.4.1.1 f Only the sub-item (e.g., isolated stain/swab sub-item) needs to be related to the request in which actual testing could occur (e.g., the Forensic Biology request) assuming there is enough information present to link the stain/sample sub-item to the evidence originally received for testing.

REVIEW OF REQUESTS FOR SERVICE ISO 7.1.1

Review of requests for work (see Confidentiality ISO 4.2 for information on RLS) is managed by the appropriate **Discipline Supervisor or designee (Case Manager)**. Review of requests should ensure the following:

- The request is from a law enforcement agency
- The ASCDL has the appropriate test methods to perform the requested service
- The ASCDL has the capability and resources to perform the requested service (see Case Management Policy)
- The service requested by the customer is the most appropriate for the submitted evidence
- The request for service is adequately understood
- In multi-discipline requests, communication of the order of testing to prevent potential loss of evidence

Submission of evidence to the Laboratory indicates the submitting agency agrees the Laboratory will make the determination of the appropriate tests/methods for the discipline selected on the RLS. The RLS notifies the customer of this agreement when the document is opened. The Laboratory will use test methods, including sampling, that are appropriate for the analysis, and which meet the needs of the customer. ISO 7.1.2

Additionally, ASCDL performs database searches in friction ridge, forensic biology, and firearms. The extent of database searches are communicated to the customer and updated as needed by the **Discipline Supervisor**. AR 7.1.9

ASCDL does not routinely utilize external providers for subcontract work. If the laboratory determines that an external provider should be used, ASCDL will advise the submitting agency in writing. Review of requests for subcontracted work is managed by the appropriate **Discipline Supervisor or designee**.

Case Managers update any requests entered in the LIMS as needed based on their review of the request and document this review by changing the assignment of the request from "Review Needed" to "Unassigned" in the LIMS. Any communications with the customer regarding selected testing or changes to selected testing will be noted in the case activities/case log area of the case record in the LIMS. ISO 7.1.8

Any discrepancies or questions about the request for work shall be resolved prior to performing laboratory activities. If, during examination, discrepancies or questions about the request arise work shall be halted until the discrepancy is resolved with the customer. ISO 7.1.4, 7.1.5, 7.1.6

Laboratory personnel shall work with agency representatives to clarify requests, answer questions about laboratory methods, and advise on the status of requests. ASCDL does not routinely allow laboratory access for non-laboratory personnel (see Attorneys or Independent Experts in Laboratory Facilities); however, ASCDL will not consume evidence without obtaining permission from the customer to allow for verification of the laboratory's work. ISO 7.1.7

CASE MANAGEMENT POLICY

It is the goal of the ASCDL to process all evidence in a timely manner while maintaining the highest quality of analytical results. Cases are generally worked in the order received. Exceptions are made based on rush requests made by the customer.

Rush requests are evaluated based on court dates or the need for investigative information. Cases having court mandated deadlines and/or those providing immediate investigative leads will receive priority attention. **Discipline Supervisors or their designee** evaluate and approve rush requests when appropriate. Reasons for approved rush requests should be documented in the LIMS. Sexual Abuse of Minor (SAM) and Sexual assault of vulnerable victims are priority cases in Forensic Biology that are documented via the "reason" field in the LIMS and do not require a case activity.

If case processing cannot begin due to lack of standards/exemplars, lack of information from the officer or prosecutor, or for any other reason outside of the control of the Laboratory, then communication to the parties necessary to resolve the issue shall be initiated and documented in the LIMS.

- The communication should contain appropriate statements informing the recipient(s) that an analysis will be performed once the necessary items/information are received and that a failure to respond within 30 days will result in case closure.
- For offenses not considered crimes against a person, if no response is received within 30 calendar days, a second email will be sent to the submitting officer at a minimum indicating the case was cancelled, the reason for the cancellation, that the evidence will be returned to the agency, and that the evidence can be resubmitted with the requisite information in the future.
- For crimes against a person, a second email containing the same information found in the first email will be sent to the submitting officer, agency supervisory personnel (sergeant, lieutenant, etc), and the DAO extending the period for another 30 days.
- For crimes against a person, if after both communications, no response is received, an email to the submitting officer, copying the DAO, the submitting agency chief or commander, and the crime lab chief notifying them that

the request has been cancelled, the evidence will be returned, and the evidence can be resubmitted with the requisite information and a new request opened in the future.

If a request from the submitting agency or District Attorney is received to withdraw the request for analysis, or if in the opinion of the **Discipline Supervisor**, processing the case will provide no useful information, then the request for service may be cancelled. When a request is cancelled, communication detailing who, when, and why the request was cancelled shall be sent to the affected parties and documented in the LIMS.

It is the responsibility of the **Discipline Supervisor** to monitor case progress and ensure cases are completed in a timely manner.

REQUEST REASON AND COMPLEXITY

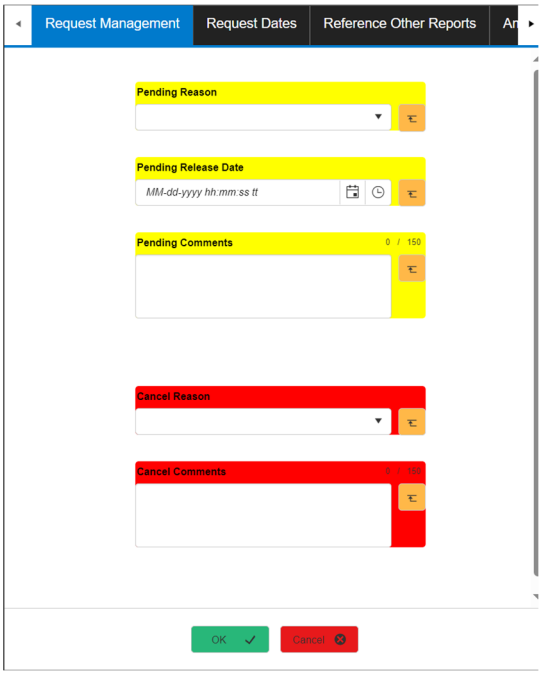
The ASCDL uses request reasons and complexity to communicate information to laboratory staff about LIMS requests. The table below lists options available and their intended use:

Reason	Use	Complexity	Use
Rush-NextAvail	Used to designate a rush request approved by the relevant case manager. Next available means that analysis needs to be expedited, but not to the point where normal workflows and/or staff schedules are disrupted.	*COD-UDN*	Used to designate that a CODIS Communication request is associated with an unsolicited DNA notification (UDN).
Rush-Priority	Used to designate a rush request approved by the relevant case manager. Priority means that analysis needs to start as soon as possible, even if normal workflows and/or staff schedules are disrupted.	*DB-ReExtract*	Used on DNA Database requests to note that the sample needs/needed to be reextracted.
DB-No Profile	Used on DNA Database requests to note that a profile was not obtained from the related sample	*Prof. Test*	Designates that the request is for a proficiency test.
DB-Partial	Used on DNA Database requests to note that a partial profile was obtained from the related sample	*QA Retest*	Used when a related request was made to record retesting of items for quality assurance purposes (e.g., seized drugs retesting program)
DB-Start	Used on DNA Database requests to designate the parent request from its child when filtering the batch Assign Requests for Analysis function.	*Sampling Plan*	Designates that the request included a sampling plan
LP-NIBIN	Used to designate that the Latent Print Processing request	*Training*	Designates that the request is for training purposes

	is associated with a NIBIN submission		
Off-Site	Used to designate that a testing activity occurred at a location other than the laboratory.	*FB-12*	Complexity for Forensic Biology Analysis swabs only or sexual assault kit requests where the results stop at quant.
PreUnsubNotTest	Used to flag a Forensic Biology request that was created due to a very delayed sexual assault kit submission (i.e., a previously unsubmitted kit post SAKI/Capital projects)	*FB-123-All*	Complexity for Forensic Biology Analysis requests that are not swabs only or sexual assault kits.
Statutory Intent	Used to indicate when a request has been created to test a previously submitted item where testing was not completed due to case management policies at the time of the original submission/testing.	*FB-123-SAK*	Complexity for Forensic Biology Analysis swabs only or sexual assault kit requests where the results proceed to profile interpretation and the lab analyst is the same as the interpreting analyst.
		FB-123-HO	Complexity for Forensic Biology Analysis requests where the results proceed to profile interpretation and the lab analyst is different from the interpreting analyst.

REQUEST MANAGEMENT CUSTOM FORM (PENDING AND CANCELLING REQUESTS)

A Request Management custom form is associated with each LIMS service. This form is to be used when a request is pended, un-pended, or cancelled to assist the laboratory in tracking backlogs and reasons for these activities. The custom form can be accessed by right clicking the associated request and selecting “Additional Data”:



A request is marked Pending when work cannot be performed yet. Pending requests allows for laboratory backlogs to be reviewed based on the time the request was available to the discipline to begin work.

Requests are pended and un-pended by right clicking the associated request and selecting “Pend Request” or “Un-Pend Request”. The reason for pending the request must be entered in the Pending Reason field of the Request Management custom form. Examples for pending include awaiting more information from the submitter, awaiting more evidence, and awaiting completion of another request.

A request should be un-pended when the request is available to the discipline to begin work. When a request is un-pended, the date in which it was un-pended must be recorded in the Request Management custom form. When un-pending a request, the Pending Reason should not be changed back to blank. If a previously pended request needs to be pended and un-pended again, the un-pend date will be updated to the latest one.

A request does not need to be un-pended before cancelling; it can move directly from pending to cancelled. If this occurs the un-pend date does not need to be recorded because the request was cancelled instead.

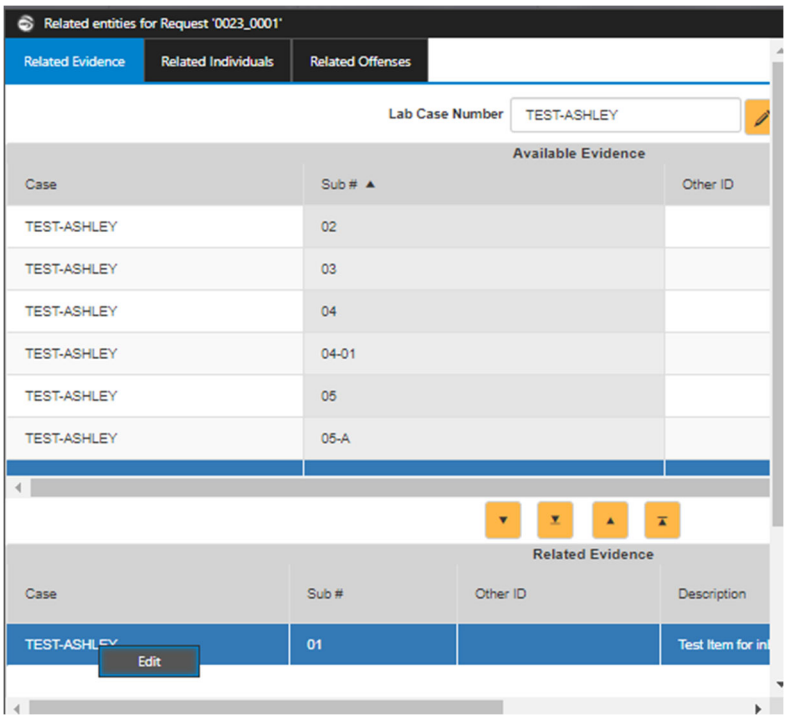
When a request is cancelled, the cancel reason shall be entered in the Request Management custom form.

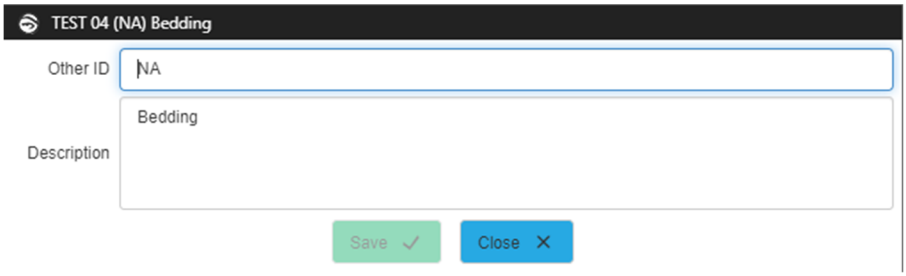
ANALYSIS OF TEST AND CALIBRATION ITEMS

REQUESTING/RETRIEVING EVIDENCE

When an analyst is assigned to a request, the request report will populate for the evidence items to be retrieved. Evidence technicians are responsible for retrieving requested evidence items from the evidence vault and transferring those items to discipline storage locations that are accessible to discipline analysts. Analysts should follow their discipline policy for requesting evidence items for testing and provide adequate notice for evidence staff to accommodate the request whenever possible.

In order to ensure all items received are populated on the report, generally items should not be unrelated from a request. When an analyst determines there are items submitted that they do not plan on analyzing given their review of the Request for Laboratory Services Form they shall indicate to the evidence staff that the item is not to be retrieved by editing the Other ID field for the related evidence item.





The analyst must type “NA” in the Other ID field for the related items of evidence that are not to be retrieved or analyzed. Doing so will assist evidence staff when staging items for pick-up. In the instance that there is already information populated in the Other ID field the analyst can replace the information in the related evidence item with “NA” as this will not write over the information in the item tab.

In addition to indicating to evidence staff an item is not needed for testing, typing “NA” in the Other ID field will replace the item description with “Not retrieved and/or not analyzed.” for that item on the final report.

ANALYST REVIEW OF REQUESTS

In general, the initial review of LIMS case record occurs by the analyst working items in the case. The assigned analyst has the most access and information available as they have access to the LIMS record, evidence packaging, and internal contents of items analyzed.

Data entry associated with requests in LIMS is present in many locations and, in instances where more than one discipline is involved, can include items that are not being worked by the analyst for that request. The request report (accessed by right clicking the request in JusticeTrax) has been developed to list all the data associated with the entities associated with the request (evidence, offenses, individuals), request details (milestones, case management, reviewer comments), chain of custody for items related to the request, and case activities associated with the request. The analyst shall cross reference the information present in this report with other information sources available (e.g, evidence packaging, RLS, evidence itself, etc) before beginning work. Any significant discrepancies will be resolved prior to beginning work. Significant discrepancies could include item description not matching item contents, questions about the quality of the item submitted for testing, and requests for service that are unclear.

Discrepancies that do not impact analysis decisions or analysis itself do not necessarily need to be resolved before work proceeds. They will, however, still be documented in the case record. (e.g. simple administrative errors.)

LIMS CASE INFORMATION UPDATES

If a staff member observes a discrepancy in existing information after the evidence intake process, at a level to where they feel it is necessary to reach out to the customer for notification/clarification, the associated information recorded in the LIMS will be updated accordingly to ensure it is the most accurate.

Any change and/or discrepancy resolution associated with these events must have a case activity (Comm-Case Information Update-All) that explains how new information was obtained and what in the LIMS was added, updated, or removed. Allowed sources for this information are the submitting agency, the assigned prosecutor, a law enforcement records management system such as the Alaska Records Management System (ARMS) or the Alaska Public Safety Information Network (APSIN), and supplementary information from the submitter (e.g., SAK paperwork).

LIMS case information additions occurring after the evidence intake process (e.g. adding an individual after the evidence intake process) shall also be documented using the (Comm-Case Information Update-All) case activity describing when the information was added and how it was obtained.

In general, if the discrepancy involved information on the Request for Laboratory Services (RLS) form, a corrected RLS does not need to be added to case attachments; information recorded in the case activity will suffice.

SUBITEMIZING EVIDENCE

After evidence is opened by the analyst it is sometimes determined that there are multiple components present that require different testing paths or information to be documented. Sub-itemizing an item duplicates data entry fields so this can happen in LIMS. Sub-itemizing provides a lineage (traceability) in LIMS between what was received and what was tested/created during laboratory processes. For this reason, sub-itemizing from evidence originally received is preferred over creating separate independent items of evidence in LIMS.

Examples of sub-itemizing include:

- Five pills received as item 05 and one pill is tested while the other 4 are not. Sub-item 05-A (1 pill) would be created to document the testing results and Sub-item 05-B (4 pills) would be created to document that they were not analyzed.
- Blood collection kit containing 2 tubes of blood received as item 05 and one of the tubes is sent out for testing while the box and remaining tube stay at the lab. Sub-item 05-A (1 tube repackaged) would be created to document a separate chain of custody from parent item 05 (original kit with 1 remaining tube)
- Stained shirt received as item 05 and a cutting of the shirt is removed for further testing. Sub-item 05-A (the cutting) would be created to document a separate chain and testing results.

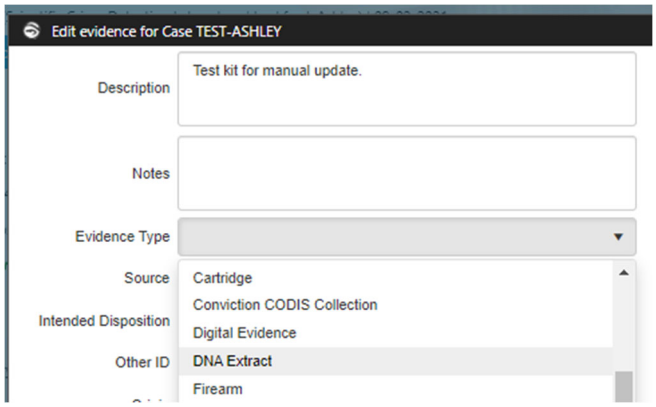
All sub-items created must begin with the full evidence number of their parent followed by a suffix. The LIMS has a default numbering scheme however, suffixes can be manually changed if desired as long as all items have unique evidence numbers.

Sub-items inherit their parent's chain of custody up until the time the sub-item was created. If a sub-item is to move separately from its parent after creation (i.e., it will have a different chain of custody going forward), its container must be changed from the parent item to an empty field.

Items related to a request will list the date they were received by the lab on the final report. Sub-items will show the date that their parent was received.

INDICATING ITEMS CREATED IN LAB ON THE TESTING REPORT

In some analyses additional items are created during the testing process. These are often created as sub-items as described above. Sub-items within LIMS will retain the receipt date of the parent item which populates on the laboratory report. When an item was created in the laboratory it is more appropriate to replace this receipt date with "Created in Lab". When an item or sub-item of evidence is designated as an evidence type of "DNA Extract" or "Test Fire", testing reports will list the Date Received section for that item as "Created in Lab" instead of the receipt date indicated in the item's chain of custody. Below is a screenshot showing where Evidence Type is designated when editing an item of evidence:



Analysts should consider whether an item is truly "Created in Lab" versus an item that was collected from an existing parent item. Items collected may still be entered as sub-items, but their receipt date does not need to be changed and should reflect the receipt date of the parent.

EQUIPMENT

Key Management will ensure that all equipment necessary for laboratory activities are available to laboratory personnel. Equipment includes instrumentation, software, reference materials, consumables, reagents, measurement standards, and other items required for the correct performance of laboratory activities and can influence the results. ISO 6.4.1

Laboratory equipment will only be used by authorized personnel. Laboratory equipment will not be used by non-laboratory personnel without prior approval from the **Chief**. If equipment is operated outside of the control of laboratory personnel, the equipment will be performance checked, at a minimum, prior to next use by laboratory personnel. ISO 6.4.2

METROLOGICAL TRACEABILITY

Disciplines with factors contributing to measurement uncertainty will establish and maintain traceability by means of an unbroken chain of calibrations or comparisons linking the calibration standards to the relevant primary standards of the SI units of measurement. ISO 6.5.1

All measurements made by disciplines should be traceable to SI units. The link to SI units may be achieved by reference to national measurement standards. ISO 6.5.2

Where traceability of measurements to SI units is not possible and/or relevant, Disciplines will establish traceability to other appropriate measurement standards such as certified reference materials or reference standards. ISO 6.5.3

The laboratory maintains records associated with providers of metrologically traceable products and services (see below for more information on the requirements for these records)

CALIBRATION OF MEASURING EQUIPMENT AND REFERENCE STANDARDS ISO 6.4.7, AR 6.4.7.1

The Laboratory shall calibrate measuring equipment and/or reference standards when the measurement accuracy or measurement uncertainty affects the validity of the reported results and/or calibration of the equipment is required to establish metrological traceability of the reported results. ISO 6.4.6 All equipment/instrumentation requiring calibration will have the Critical Calibration column marked in the SharePoint Equipment List (see Equipment List)

Each Discipline will have a documented procedure for the calibration of equipment/instrumentation that meets the requirements above. This procedure will include the required interval for calibration and require calibration prior to placing the equipment/instrumentation in service.

When correction factors are listed on a calibration certificate, Disciplines shall review the correction factors and update procedures as needed to accommodate. ISO 6.4.11

Where practicable, Laboratory equipment requiring calibration will be labeled with the status of calibration. This is met at a minimum by labeling the equipment with the date the next calibration is due. ISO 6.4.8

Note: ASCDL does not calibrate its own equipment used in testing or calibration. AR 6.5.1.3

All equipment requiring calibration shall meet the following requirements:

Requirements for purchasing calibrated equipment

- Provider must have ISO/IEC 17025 accreditation with scope of accreditation covering the calibration performed and an accrediting body under ILAC [AR 6.5.1.1]
- The calibrated equipment must be accompanied by a calibration certificate

The Discipline Procedure Manual shall address the required purchase specifications. These specifications can include:

- Units of measurement
- Range of measurement
- Accuracy required
- Precision/uncertainty requirements

Requirements for provider performing calibration/recalibration of new/existing equipment

Provider must have ISO/IEC 17025 accreditation with scope of accreditation covering the calibration performed and an accrediting body under ILAC [AR 6.5.1.1]

Calibration Sticker Requirements

- Date Calibration Performed
- Date Calibration Expires

Calibration Certificate Requirements

- Indication that calibration was performed to ISO/IEC 17025 accreditation requirements
- As Found and As Left Testing
- Clear indication when As Found testing does not meet specified requirements
- Where adjustment was performed, clear indication it was performed
- Correction factor (if applicable)
- Uncertainty listed on certificate (if applicable)
- Tolerance (if applicable)

The Discipline Procedure Manual shall address the specifications for required calibrations in their discipline.

These specifications shall include the following, if applicable:

- Period of validity
- Units of measurement
- Range of measurements required
- Critical measurements that should be included in the calibration or calibration range (if applicable)
- Accuracy/tolerance required
- Required testing (e.g. repeatability, eccentricity, number of replicates)

Where practicable, Laboratory equipment requiring calibration will be labeled with the status of calibration. This is met at a minimum by labeling the equipment with the date the next calibration is due.

REFERENCE MATERIAL TRACEABILITY

Each discipline is responsible for identifying reference materials used that have a significant effect on the accuracy or validity of the sampling, calibration result, test result, or total uncertainty of the test result. All reference materials meeting the above criteria will be provided by an ISO/IEC 17034 reference material provider with a scope of accreditation covering the reference material produced and an accrediting body under ILAC. AR 6.5.1.1

If a reference material is altered in a way that changes the quantitative value (e.g. diluted) then the calibration of the equipment used to alter the material will be evaluated as part the traceability chain and will meet all requirements for calibration of equipment listed above. AR 6.5.1

NON-ACCREDITED PROVIDERS AR 6.5.1.2

In the instance that an accredited provider for calibration services, reference standards or reference materials does not exist the competence, capability, and metrological traceability for the supplier and the external product or service being purchased shall be confirmed.

EQUIPMENT/INSTRUMENTATION AND SOFTWARE

Equipment/Instrumentation specifically referred to in this section includes items like microscopes, measuring devices, gas chromatograph/mass spectrometers, reference masses, and other similar items. It does not refer to Reagents/Chemicals or general consumables used in the laboratory.

EQUIPMENT/INSTRUMENTATION HANDLING, USE, TRANSPORT AND STORAGE

Manufacturer's recommendations for handling, use, transport and storage of equipment should be reviewed by and followed when applicable. Instruction and maintenance manuals will be readily available to the appropriate personnel.

Discipline Procedure Manuals shall have procedures for safe handling, and use of all equipment/instrumentation. Transport and storage requirements will be addressed in Discipline Procedure Manuals if applicable. Discipline procedures shall be adequate to ensure proper functioning and prevent contamination and deterioration of equipment/instrumentation. ISO 6.4.3

Reference standards will only be utilized for calibration purposes; unless it can be documented that additional use will not invalidate their performance as reference standards.

EQUIPMENT/INSTRUMENTATION ACCURACY REQUIREMENTS

Equipment/instrumentation and its software used for casework will meet the accuracy requirements set forth in the Discipline Procedure Manuals. Disciplines shall ensure that all equipment/instrumentation used for measurement is capable of achieving the measurement accuracy and/or measurement uncertainty required to provide a valid result. ISO 6.4.5

Prior to placing in service or returning to service, equipment/instrumentation will be calibrated, or performance checked as described in the Discipline Procedure Manuals. ISO 6.4.4

Discipline Procedure Manuals will describe:

- any performance checks required on equipment/instrumentation
- the time frame for checking based on the specifics of the testing performed with the equipment

- required passing criteria

Each Discipline will have a procedure for calibration of reference materials and measuring equipment that meets the requirements listed above (see Calibration of Measuring Equipment and Reference Standards). ISO 6.4.7

Discipline Procedure Manuals shall outline the procedure for intermediate checks necessary to maintain confidence in the performance of equipment. When considering the need for intermediate checks, disciplines should consider risks associated with calibration interval, use of the equipment/instrumentation, stability of the equipment/instrumentation, method specifications, and the risk associated with a failed check. ISO 6.4.10

Any equipment that has been shown to be defective or operating outside of limits will be taken out of service and marked as such. The equipment will be repaired and, once reliability has been demonstrated by calibration and/or performance checks, returned to use. A determination will be made if any test results were affected. The procedure for nonconforming work will be followed, if necessary. ISO 6.4.9

Discipline personnel will ensure that equipment is safeguarded from any adjustments that would invalidate the test and/or calibration results. ISO 6.4.12

EQUIPMENT/INSTRUMENTATION RECORDS

Laboratory instruments and equipment will be labeled and uniquely identified. Disciplines will keep equipment records to include: ISO 6.4.13

- Identity of the equipment and its software and firmware (see equipment list)
- Manufacturer, type, and serial number or unique identifier (see equipment list)
- Current location (see equipment list)
- Documentation of reference materials, results, acceptance criteria, relevant dates, and the period of validity
- Maintenance performed and, where appropriate, maintenance plan
- Repair records
- Evidence of verification that equipment conforms with specified requirements, performance checks and/or calibration records
- Calibration certificates, adjustments, date of next calibration as applicable

EQUIPMENT LIST

The Equipment List in SharePoint is used to document all Laboratory equipment/instrumentation. All lab staff have edit permissions for this list. Below is a table listing columns in the list and their intended use:

Column	Intended Use
Section	Lab section assigned to the equipment (Biology, Chemistry, or Physical).
Related Service	Service associated with the equipment. This is the same column used by the Records and Controlled Documents document libraries.
Equipment Type	Type of equipment (e.g. Balance, GC-MS, Reference Mass, etc.)
Manufacturer	Manufacturer of equipment. This is populated from the Vendors List.
Make/Model	The make/model of the equipment. If the equipment has multiple components (e.g. a gas chromatograph mass spectrometer), the make/model for each component will be listed in this column separated by "-".
S/N	Manufacturer serial number for the equipment. If the equipment has multiple components (e.g. a gas chromatograph mass spectrometer), the serial number for each component will be listed in this column separated by "-".
Equipment ID	Internally defined name used for ease of identification (e.g. Beta, HS1, P-097, etc.)
Critical Calibration	Indicates that calibration of this equipment is deemed critical due to its intended use.
Status	There are three options for status In Service, Out of Service, and Deactivated. Out of Service indicates the equipment is currently out of service but will potentially be repaired and used again. Deactivated indicates that the equipment is either set for surplus or no longer in the building. Deactivated should be used in lieu of removing equipment from the list.
Expected Replacement	This field can be used to aid in planning a replacement schedule for equipment.
Date of Last Inventory	Date that the equipment was last inventoried.
Location	Current location of the equipment
SOA Asset Tag	State of Alaska asset tag associated with the equipment if applicable.
Related Software	Software/Firmware related to the equipment's operation including its current version.
Set	If the equipment is part of a larger set of equipment, the identity of that set is listed here.
Approximate Value	Approximate value in US dollars of the equipment.
MOA Asset Tag	Municipality of Anchorage asset tag associated with the equipment if applicable.
Notes	Any notes associated with the equipment.

REAGENTS/CHEMICALS

Each Discipline will have documented procedures for the preparation, storage, handling, transport and use of reagents and chemicals including reference materials, primary standards, and/or working standards, if applicable. These procedures shall also include the procedure for checking the reliability of these items. ISO 6.4.3, ISO 6.4.10

Reagent grade chemicals are purchased unless otherwise specified in a Discipline Procedure Manual.

Reagents prepared in the disciplines will be labeled with, at a minimum, the identity of the reagent, the date of preparation or lot number. AR 6.4.3.1

Each Discipline will maintain records that will identify:

- The identity of the preparer
- The components used in preparation
- Who performed the quality control check and the results of the quality control check

- Reagents will be prepared by authorized personnel. AR 6.4.3.1

If a reagent or chemical fails a check or is otherwise deemed inadequate for use a determination will be made if any test results were affected and the procedure for nonconforming work will be followed, if necessary. ISO 6.4.9

Disciplines shall ensure that SDS for all chemicals/reagents are maintained in the SDS ebinder (see Safety Data Sheets).

REFERENCE COLLECTIONS

Disciplines utilizing reference collections maintained for identification, comparison or interpretation purposes will document, uniquely identify, and properly control the reference collection. AR 6.4.3.2

Reference collections in use at the ASCDL include:

- Mass Spectral and Infrared Spectral Libraries
- Firearm Reference Collection
- Footwear Intelligence In-house Library

CONSUMABLES

All Disciplines use a variety of consumable materials. Disciplines shall utilize appropriate measures to ensure consumables meet the needs of the laboratory. Discipline procedures shall have sufficient checks in place to identify potential issues with consumable materials utilized for laboratory activities to minimize the potential impact on the validity of results. When necessary, the procedure for nonconforming work shall be followed.

Disciplines shall ensure they have appropriate stock of consumables necessary for laboratory activities.

INDIVIDUAL CHARACTERISTIC DATABASES

The appropriate Discipline Procedure Manuals will outline procedures for the operation of individual characteristic databases used in their discipline.

Individual Characteristic Databases utilized by ASCDL include:

- Combined DNA Index System (CODIS)
- Automated Biometric Identification System (ABIS)
- National Integrated Ballistic Information Network (NIBIN)

See (Individual Characteristic Database Items) for more information on receipt of items for Individual Characteristic Databases.

EXTERNALLY PROVIDED PRODUCTS AND SERVICES

The Laboratory shall ensure suitable externally provided products and services that affect laboratory activities are used. Examples of externally provided products and services can include consumables, instrumentation, measuring equipment, calibration providers, reference material providers equipment maintenance services, outsourcing, and proficiency testing services. ISO 6.6.1

PURCHASING PROCEDURE ISO 6.6.2

State purchasing guidelines govern the procurement of products and services for the Laboratory. Laboratory personnel shall follow state purchasing requirements. This purchasing procedure describes the selection and purchase of supplies and services including those that affect laboratory activities, or the quality of tests performed.

CRITICAL PRODUCTS AND SERVICES

Key Management is responsible for identifying critical products and services associated with their disciplines. Critical products and services are those that have a significant impact on the testing or calibration activities and include:

- Items that require metrological traceability
- Calibration services
- Testing Services (outsourcing)
- Proficiency Testing Services
- Products or services that laboratory procedure requires accreditation of the provider

Key Management will evaluate suppliers of critical products and services using the Vendor Approval: Supplies and Services Form.

The FBI QAS requires Forensic Biology to identify "critical reagents" and evaluate them prior to use in casework. QAS 9.3 While the terminology is the same "critical reagents" identified in forensic biology do not require a Vendor Approval: Supplies and Services form unless they fit in one of the categories above. Forensic biology "critical reagents" are evaluated as described in Evaluation of Products and Services below.

OUTSOURCING

The Laboratory is responsible for subcontractor (outsourcing) work unless the submitting agency specifies the subcontractor to be used. The Laboratory will only subcontract with a competent subcontractor that complies with International Standard 17025 or another Forensic Laboratory Accrediting Body.

Disciplines using a subcontractor will define how documentation generated by the subcontractor is retained.

Vendor Approval: Supplies and Services Form are required for all approved subcontractors.

When evidence items are in laboratory custody a technician or individual authorized by **Top Management** and/or the **Evidence Supervisor** will transfer and ship the item to the outsource laboratory or return the item to the submitting agency for shipment by the customer.

VENDOR APPROVAL RECORDS

The Vendor Approval: Supplies and Services Form is utilized to document the review of providers critical products and services. Vendor Approval Forms are required to be approved prior to the use of a new vendor by **Key Management** or the **Discipline Technical Lead**. Vendor Approval Forms are reevaluated annually or at the accreditation expiration of the provider whichever comes first.

The evaluation of the provider should include verification of the accreditation status and scope of the provider, if applicable. The preferred method of accessing the accreditation certificate and scope is from the website of the provider's

accrediting body. This ensures any changes to accreditation status are accurately reflected in the reviewed certificate and scope.

The evaluator should also attach a copy of the current accreditation certificate and scope to the Vendor Approval Form to document the review.

For instances where an accredited provider is not available documentation demonstrating the competence and capability of the supplier along with confirmation of metrological traceability and/or other requirements shall be attached to the Vendor Approval Form.

When a supplier previously used by the laboratory is reevaluated and determined to no longer meet laboratory requirements an evaluation of the potential impact to testing and calibration activities shall be conducted and the procedure for nonconforming work followed if applicable.

Vendor Approval Forms are stored in the laboratory SharePoint and are reviewed at the quarterly Quality Assurance meetings with the disciplines.

OTHER SUPPLIES AND SERVICES

Supplies and services that are not identified as critical do not require evaluation of the vendor with the Vendor Approval: Supplies and Services Form. **Key Management** is responsible for ensuring these products and services meet the needs of the laboratory and the customer. **Key Management** should consider the following when making purchases of non-critical supplies and services:

- Any manufacturer requirements for consumables
- Specifications meet the needs of the laboratory
- Cost-effectiveness
- Shipping timelines/cost
- Quality of service from the supplier
- Prior issues with supplier

EVALUATION OF PRODUCTS AND SERVICES

The Laboratory will ensure that purchased instruments, supplies, reagents, and consumable materials affecting the quality of tests are not used until they have been verified as complying with the requirements defined in the test methods or calibrations performed. Each Discipline will maintain records of these actions taken to verify compliance.

Discipline Procedure Manuals shall define the checks necessary to ensure products and services comply with the requirements of the test methods or calibration method. The frequency and occurrence of these checks should be based on the risk to test validity and laboratory activities. If a product or service fails to meet the quality standard set by the laboratory, it shall not be used for laboratory activities until its reliability can be verified.

COMMUNICATION WITH VENDORS ISO 6.6.3

Laboratory staff purchasing supplies and services shall communicate any laboratory requirements to the external provider when applicable. This communication could include:

- Competence required for personnel

- Specific laboratory requirements for the product or service
- Calibration specifications for calibration providers (see Calibration of Measuring Equipment and Reference Standards ISO 6.4.7, AR 6.4.7.1)
- Any special acceptance criteria required by the laboratory

APPROVED TESTING/CALIBRATION METHODS

METHOD SELECTION

The ASCDL notifies the customer on the Request for Laboratory Services Form that by submitting evidence to the lab they are accepting the laboratory will select appropriate testing methods and procedures.

Key Management in conjunction with **Discipline Technical Leads** are responsible for ensuring that the laboratory is using appropriate methods and procedures for all laboratory activities performed. Methods used by the Laboratory will either be validated laboratory-developed methods or published international, regional, or national standards, or by reputable technical organizations, or in relevant scientific texts or journals, or specified by the manufacturer of the equipment. **Technical Leads** will ensure that all methods operate properly before using them for testing or calibration and **Discipline Supervisors** or the **DNA Technical Manager** will approve the use of the method.

Laboratory methods and procedures are kept up to date through the Controlled Document Requirements. All methods are readily available to personnel through the laboratory SharePoint Controlled Document Library. This library retains the current published version as well as all archived versions of controlled documents (see SharePoint Controlled Document Library) ISO 7.2.1.2, 7.2.1.3 **ASCDL personnel** are responsible for remaining current in changing technologies and standards relating to their discipline to ensure methods are up-to-date with current practices and national standards in their field. ISO 7.2.1.4

Discipline Procedure Manuals will include methods and procedures for all laboratory activities in that discipline to include: ISO 7.2.1.1, AR 7.2.1.1.1

- Sampling
- Preparation and handling of evidence or calibration items
- Instructions for use and operation of equipment and instruments used by that discipline (references to instructions are also appropriate)
- Data analysis including any statistical evaluation
- Data interpretation
- Measurement uncertainty (see Evaluation of Measurement Uncertainty)

For test methods that involve comparison of an unknown to a known for the purposes of source association the Discipline Procedure Manual will describe the method by which comparison of an unknown to a known is evaluated. This procedure shall include evaluation of the unknown item for characteristics suitable for comparison prior to comparison with one or more known items. ISO 7.2.1.1.2

The Breath Alcohol Procedure Manual addresses the laboratory calibration program method. Any calibration method used by the laboratory will assess (bias and precision) over an appropriate range of values and whenever possible, the source of materials used to calibrate measuring instruments will be sourced from a different manufacturer than material used to adjust measuring instruments. When different manufacturers are not available different lot numbers from the same manufacturer will be used. ISO 7.2.1.1.3

METHOD DEVELOPMENT, VERIFICATION, AND VALIDATION

The **Discipline Supervisor** with the **Discipline Technical Lead** (the **DNA Technical Manager** for the Forensic Biology discipline) will coordinate the introduction of any new test methods used in the Discipline.

METHOD DEVELOPMENT ISO 7.2.1.6

When method development occurs, it shall be a planned activity and the development plan shall be authorized by the **DNA Technical Manager** or **Discipline Supervisor** and **Discipline Technical Lead** and the **Quality Assurance Manager** prior to beginning method development. The method development plan shall consider the needs of the customer and during the process of method development there shall be periodic review to ensure the needs of the customer are still being met. When changes are made to the method development plan these shall be approved and authorized by the **DNA Technical Manager** or **Discipline Supervisor** and **Discipline Technical Lead** and the **Quality Assurance Manager.**

The **Discipline Supervisor** or the **DNA Technical Manager** will consult with the **Quality Assurance Manager** and the appropriate **Technical Lead** during the development of the new method.

The newly developed method will be validated and approved prior to use in casework.

METHOD VALIDATION/VERIFICATION

Validations will be performed on all new technical methods or procedures to demonstrate reliable and accurate results for the intended use of the method or procedure. ISO 7.2.2.1 The validation process shall ensure that the method performance meets the needs of the customer and any relevant specifications. ISO 7.2.2.3 Method validation techniques may include one, or more of, or any combination of the following:

- Calibration or evaluation of bias and precision using reference standards or reference materials
- Systematic assessment of the factors influencing results
- Testing method robustness through variation of controlled parameters
- Comparison of results with other validated methods
- Interlaboratory comparison
- Evaluation of measurement uncertainty of the results

The validation process will review the range and accuracy of the results obtained from testing or calibration to ensure the new technical method or procedure meets the requirements needed. ISO 7.2.2.1

All technical method validation will be conducted according to a written validation plan. AR 7.2.2.1.1 The validation plan shall be approved by the **DNA Technical Manager** or **Discipline Supervisor** and **Discipline Technical Lead** and the **Quality Assurance Manager** prior to beginning method validation. The summary of the validation will include:

- a summary of the data analysis and interpretation
- any criteria required to report a result, opinion, interpretation, or statement of conformity
- identify any limitations of the method

The validation summary shall be signed by the **DNA Technical Manager** or **Discipline Supervisor** and **Discipline Technical Lead** and the **Quality Assurance Manager**.

Software validation can be conducted as part of technical method validation or in some instances such as LIMS validation it can be performed as an independent validation (see Validation of LIMS ISO 7.11.2). Software validation will follow a written validation plan defining the criteria that will be evaluated. The validation plan shall be approved by the **DNA Technical Manager** or **Discipline Supervisor** and **Discipline Technical Lead** and the **Quality Assurance Manager** prior to beginning method validation. LIMS validation plans may be approved by the **LIMS Administrator** rather than the **Discipline Supervisor**.

The validation summary shall include:

- a summary of the results of testing
- any limitations identified

The validation summary shall be signed by the **DNA Technical Manager** or **Discipline Supervisor** and **Discipline Technical Lead** and the **Quality Assurance Manager**. LIMS validation summaries may be approved by the **LIMS Administrator** rather than the **Discipline Supervisor**.

Disciplines will maintain validation records to include the procedure used, requirements, determination of the performance characteristics of the method, results obtained, all data and data interpretation, and a statement of validity of the method detailing as to whether the method is fit for the intended use. ISO 7.2.2.4

When changes are made to validated methods, including changes to data analysis and interpretation, the **DNA Technical Manager** or **Technical Leads** will determine the influence of the changes and where they are found to affect the original validation will perform a new validation. ISO 7.2.2.2

All new methods will be communicated to the discipline and authorized by the **DNA Technical Manager** or **Discipline Supervisor** and **Discipline Technical Lead** and the **Quality Assurance Manager** prior to use in the discipline.

Methods validated outside of the Laboratory will be evaluated prior to use. This will include reliability testing by the discipline through a documented in-house performance verification. This verification will be maintained in the discipline records for future reference.

QUALITY CONTROL PROCEDURES

The Laboratory will monitor the validity of testing and calibration using quality control procedures utilized in the testing methods. Each Discipline Procedure Manual will outline the quality control procedures for that specific Discipline. The following are examples of quality control procedures:

- Use of reference collections
- Use of certified reference materials
- Use of positive and negative controls
- Performance Checks on instruments and equipment

Discipline Procedure Manuals will specify the controls and standards utilized in each method or procedure and actions that should be taken if controls fall outside of the defined range to prevent the reporting of incorrect results. ISO 7.7.3 All controls and standards utilized will be documented in the technical record.

Methods for monitoring the validity of results should record data in such a way that trends are detectable and, where practicable, utilize statistical techniques to review the results. An example for a mechanism of monitoring trends in control

data would be creating control charts. Discipline Procedure Manuals shall describe how trends are reviewed and monitored including any statistical analysis utilized. ISO 7.7.1 Data from monitoring activity analysis shall be reviewed and utilized to improve laboratory activities. ISO 7.7.3

EVALUATION OF MEASUREMENT UNCERTAINTY

ASCDL shall have a procedure to evaluate, or estimate when applicable, the measurement uncertainty for all reported quantitative results and for all calibrations. ISO 7.6.3, 7.6.2, AR 7.6.3.1 The resulting measurement uncertainty shall be reported, at a minimum:

- When it is relevant to the validity or application of the test results
- A customer's instruction so requires
- The measurement uncertainty affects conformity to a specification limit ISO 7.8.3.1c)

Discipline Procedure Manuals shall include the following:

- All measurements requiring measurement uncertainty calculations
- The schedule to review and/or recalculate the measurement uncertainty
- Requirements for when and how the measurement uncertainty is to be reported (see Reports for more information on reporting)

Methods for evaluation of measurement uncertainty are documented in the Discipline Procedure Manuals or discipline records. Methods for evaluation shall identify contributions to measurement uncertainty and include all contributions of significance in the evaluation using appropriate methods of analysis. ISO 7.6.1

All methods for evaluation of measurement uncertainty shall include the following: AR 7.6.1.1

- Require the specific measuring device or instrument used for a reported result to have been included in or evaluated against the estimation of measurement uncertainty for that method
- Include the process of rounding the expanded uncertainty
- Require the coverage probability of the expanded uncertainty to be a minimum of 95.45% (coverage factor of 2)
- Require at least one person involved in the measurement uncertainty evaluation/reevaluation be competent in the discipline
- Require new measurement uncertainty evaluations to have the initial reevaluation at a maximum of approximately 1 year from the initial evaluation
- Reevaluation schedules shall consider changes to the components contributing to the measurement uncertainty and the stability of the calculated uncertainty. For example:
    - Equipment replacement
    - Changes to the method
    - Staff Changes
    - Significant changes in the reported uncertainty from the prior evaluation

The **Discipline Supervisor** is responsible for ensuring all measurement uncertainty evaluations/reevaluations are conducted according to the defined schedule and for designating the person/people responsible for conducting the evaluation.

A report summarizing the components and results shall be prepared for each evaluation/reevaluation. This report shall be signed by the person completing the measurement uncertainty evaluation, the **Discipline Supervisor**, and the **Quality Assurance Manager**.

Records are retained for each evaluation and estimation of measurement uncertainty that include: ISO 7.6.4

- The signed summary report
- Statement of the measurand
- Statement of the measurement traceability
- Equipment used
- All uncertainty components considered
- All significant uncertainty components and their evaluation
- Data used to estimate repeatability and/or reproducibility
- All calculations
- The combined standard uncertainty, the coverage factor, the coverage probability, and the resulting expanded uncertainty

SAMPLING

The Laboratory will have a documented sampling plan and method for disciplines that have field sampling listed in their scope of accreditation or for disciplines that take a representative sample of a substance or material for testing and report on the whole substance or material. The sampling plan will be available at the location where sampling is undertaken and will address the factors to be controlled to ensure the validity of the testing. ISO 7.3.1

The sampling method shall describe: ISO 7.3.2

- The selection of samples or sites
- The sampling plan
- The preparation and treatment of sample(s) from a substance, material, or product to yield the required item for subsequent testing or calibration.

Note: during the process of testing or calibration laboratory personnel may select a portion of an item for testing; however, this process is considered item handling and is not required to have a sampling plan. Item handling is covered in Evidence and Calibration Item Handling and Discipline Procedure Manuals.

Records of sampling shall be retained in the case records and shall include the following, where relevant: ISO 7.3.3

- Reference to the sampling method used
- Date and time of sampling
- Data to identify and describe the sample (e.g. number, amount, name)
- Identification of the personnel performing sampling
- Identification of the equipment used
- Environmental or transport conditions
- Diagrams or other equivalent means to identify sampling locations
- Deviations, additions to or exclusions from the sampling method and sampling plan

Discipline Procedure Manuals will address how sampling is to be reported for the discipline. This procedure for reporting will include, when necessary for interpretation of results: ISO 7.8.5

- The date of sampling
- Unique identification of the item or material sampled (including the name of the manufacturer, the model or type of designation, and serial numbers as appropriate)
- The location of sampling, including any diagrams, sketches, or photographs
- A reference to the sampling plan or method
- Details of any environmental conditions during sampling that affect the interpretation of the results
- Information required to evaluate measurement uncertainty for subsequent testing or calibration

DEVIATION REQUESTS

Any significant deviations from test methods will be pre-approved, documented in the case record, technically justified, and reviewed in the technical review process. The laboratory Request for Laboratory Services Form notifies the customer that by submitting evidence to the laboratory they are accepting that the laboratory will select appropriate testing methods and procedures. ISO 7.2.1.7

The laboratory uses the Deviation Request Form for requesting and approving deviations from procedures. The staff member requesting the deviation from procedure shall fill out the Deviation Request Form. The title for the form is DRF YYYY.MM.DD INT where the date is the date of the request and INT is the initials of the requesting staff member. If more than one deviation request is filled out on a single day by the same staff member the title will be incremented as follows DRF YYYY.MM.DD INT_1.

Deviation Request Forms are uploaded to the appropriate SharePoint document set by the analyst requesting the deviation and the **Approving Authority** is added to the Action Needed By column. If the deviation is approved the **requesting staff member** creates a case activity with the type QA-Approved Deviation in the JusticeTrax case(s) to which the deviation relates. The case activity will list the title of the Deviation Request Form.

A Deviation Request Form can be used by multiple analysts/cases if appropriate; however, the Deviation Request Form must be specific in the Approving Authority comments if the deviation is approved for more than just the requestor's case. For cases where the deviation request is approved for cases over a long period of time the comments must make this clear. The case number for every case does not need to be added to the deviation request form; however, each case must contain the case activity referencing the deviation request form identifier. For Forensic Biology database cases the deviation request form identifier does not need to be added to each individual case activity but can be documented on the retained review checklist for the database batch found in SharePoint.

Deviation Request Forms can also be used to document planned deviations from procedures not relating specifically to case work. In this situation, the Deviation Request Form is still filled out, titled, and stored in the appropriate SharePoint document set but no case activity is needed.

If a Deviation Request is denied the Deviation Request Form is still retained in the appropriate SharePoint document set but no case activity is needed in the case file.

Approving Authorities for Deviation Requests are as follow:

Discipline Manual Deviating From	Approving Authority
Forensic Biology	Varies, see document for approving authority
Friction Ridge	Discipline Supervisor and/or APD Forensic Supervisor
Scene Investigation	Discipline Supervisor
Impressions	Discipline Supervisor
Firearm and Toolmark	Discipline Supervisor
Seized Drugs	Discipline Supervisor
Toxicology-Testing and Calibration	Scientific Director
Evidence	Evidence Supervisor
Lab wide Manuals	Top Management

Approving Authorities should consult with **technical leads** when necessary. Staff members serving in an acting capacity for an Approving Authority role can approve deviations.

Approving Authorities requesting a deviation will have a competent analyst in the discipline sign the deviation request form in the comments as a second approver.

TECHNICAL RECORDS AND REPORTING

REPORTS

ASCDL provides all results for testing and calibration services through written reports. AR 7.8.1.2.1 Reports must accurately, clearly, unambiguously, and objectively provide the result of each test or calibration performed ISO 7.8.1.2.

Discipline Procedure Manuals shall outline specific reporting language for their disciplines that indicates what should be reported for all items received. This reporting language shall include the following AR 7.8.1.2.2:

- Items that are collected or created and preserved for future testing
- Circumstances when partial work is performed
- Language used to qualify associations
- Language used to communicate inconclusive results that includes the reason the result is inconclusive

Discipline Procedure Manuals shall also outline how the following information is included in reports, if applicable:

- Information on any test conditions that are necessary for the interpretation of results ISO 7.8.3.1a
- How statements of conformity to any requirements or specification are reported ISO 7.8.3.1b
- How and when measurement uncertainty is reported for any reported measurements ISO 7.8.3.1c
- How opinions and interpretations are to be reported on the written report ISO 7.8.3.1d
- How sampling is reported ISO 7.8.5
- Any additional information that is required to be reported ISO 7.8.3.1e

All reports issued will list all items requested for that service type even if no work was performed. Items appear on the report when they are related to the request. See Subsequent Submittals for a Preexisting Case

The **evidence section** will enter all subsequent submittal requests using the same process as outlined above. Upon review, the **Case Manager** will determine whether the subsequent request will be cancelled and consolidated with a preexisting request or worked as a separate request.

In general, subsequent requests will be cancelled/consolidated when the initial request is still unassigned. If a subsequent request is cancelled, items related to the cancelled request will be related to the preexisting request (see Relating Evidence to a Request for exceptions). The reason for cancelling the request will be recorded in the Request Management custom form (see the Request Management Custom Form (Pending and Cancelling Requests for more information).

Relating Evidence to a Request for more information. When an analyst determines an item will not be tested during analysis the report will indicate that the item was not analyzed.

ISO/IEC 17025 outlines the requirements for testing and calibration reports to minimize the possibility for misuse or misunderstanding. ASCDL does not produce simplified reports [ISO 7.8.1.3, AR 7.8.1.3.1] and therefore the following defines the information that shall be present in testing or calibration reports for the laboratory or the reason for any items not included:

- A title [ISO 7.8.2.1a]
- Name and address of the laboratory [ISO 7.8.2.1b]
- The laboratory address is listed on the report and testing activities are all performed onsite except for those approved to be conducted remotely (see Facilities/Environmental) and scene investigation. Scene investigation lists the location of activities in their reports. [ISO 7.8.2.1c]
- Case number or instrument serial number (for calibration reports) on each page of the report and pagination indicating the total number of pages (ie. Page m of n) [ISO 7.8.2.1d]
- The agency and name of the submitting officer (contact information for the officer is found on the request for laboratory services (RLS) form which is part of the technical record and is not added to the report, the customer is notified of this in the RLS notification). Note: The laboratory owns all breath test instruments and is the customer for calibration reports. [ISO 7.8.2.1e]
- Identification of the methods used for testing [ISO 7.8.2.1f]
- Item descriptions for testing reports and instrument serial number for calibration reports. Items that are not retrieved by the analyst for testing purposes are listed on the report as “Not retrieved and/or not analyzed” as they are not opened or viewed by the analyst. [ISO 7.8.2.1g]
- Date of receipt of each item and the date of sampling, if sampling is performed [ISO 7.8.2.1h]
- At a minimum, analysis start and end dates indicating the date range over which laboratory activities were performed. [ISO 7.8.2.1i]
- The date of issue [ISO 7.8.2.1j]
- A reference to the sampling plan used, if applicable [ISO 7.8.2.1k]
- A statement indicating the results relate only to the items tested or calibrated [ISO 7.8.2.1l]
- A result for each item accepted by the laboratory for analysis with units of measurement, if applicable (Result - Not Analyzed indicates that an item wasn’t tested and therefore isn’t associated to any other result in the report) [ISO 7.8.2.1m]
- Additions to, deviations, or exclusions from the method are not included in the reports but are available in the technical record (see Deviation Requests). The laboratory notifies the customer via the RLS pop up box that the laboratory chooses the appropriate testing methods and since standard methods are not used the reporting of deviations in the report would be difficult to interpret without the full technical record. [ISO 7.8.2.1n]

- Signature of the analyst authorizing (preparing) the report ISO 7.8.2.1o
- Clear indication when results are from external providers ISO 7.8.2.1p
- Reporting of any initial database entry AR 7.8.1.2.2d
- Comparative examinations resulting in the elimination of an individual or object will be clearly communicated in the laboratory report
- All associations in the report will qualify the significance with either a statistic or qualitative statement AR 7.8.1.2.2b
- The reason will be communicated for any inconclusive results AR 7.8.1.2.2c

The Breath Alcohol Procedure Manual outlines the required components of calibration reports. ISO 7.8.4, AR 7.8.1.2.3

The Laboratory is responsible for all the information provided in the report except where information is provided by the customer. Any information provided by the customer shall be clearly identified. ISO 7.8.2.2

REPORTING OPINIONS AND INTERPRETATIONS

ASCDL authorizes analysts for expressing opinions and interpretations when an analyst is authorized for reporting results as laboratory reports can contain results, opinions, and interpretations. ISO 7.8.7.1

When laboratory personnel express opinions and interpretations in reports the basis upon which the opinion or interpretation has been made will be documented. ISO 7.8.7.1

Opinions and interpretations in laboratory reports will be based on the results from the test or calibration item and will be clearly identified as opinion or interpretation. ISO 7.8.7.2

When opinion and interpretations or case specific consultations are communicated directly to the customer (either verbally or written) the content of this communication shall be documented in the LIMS case activities. The case activity shall be detailed enough to ensure a record of what was communicated is retained. In instances where results are being communicated to the customer prior to the release of a report these communications shall follow the requirements for the release of preliminary results (see Verbal Case Information Dissemination).

The Breath Alcohol Procedure Manual describes the procedure for documenting communications relating to the Breath Program, including opinions and interpretations. ISO 7.8.7.3

REPORTING STATEMENTS OF CONFORMITY

ASCDL does not report statements of conformity to specifications or standards except for reporting seized drug schedules. Controlled substance schedules are inherent to the standard and agreed on by the customer as they are written in statute. ISO 7.1.3

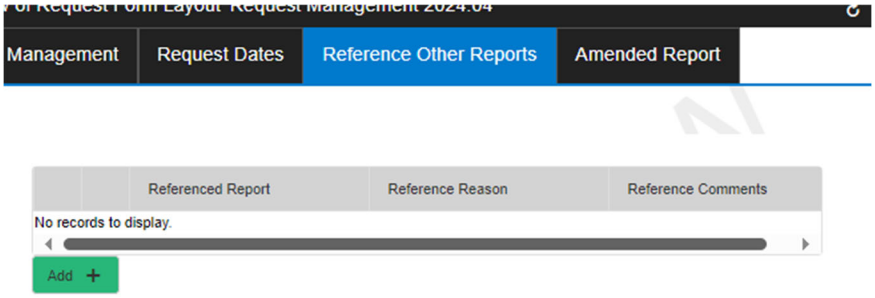
All statements of conformity for seized drugs will be reported in a manner that makes it clear to which result the statement applies and what specifications or parts are met or not met if not immediately clear. ISO 7.8.6.2

REFERENCING OTHER REPORTS ON A TESTING REPORT

When it is determined that other reports should be referenced in the current report, the Reference Other Reports tab in the request custom form will be used to do so. Common scenarios for referencing other reports include when:

- Permission to consume an item was received.

- Items previously reported as unanalyzed were analyzed.
- Items created during laboratory activities detailed in another report are now being addressed.



The Referenced Report drop-down will populate with all released requests within the current case and any related cases. Entries can also be free-texted when needed (e.g., when referencing outsource lab reports). The table below outlines the reference reason dropdown values along with the corresponding report language that will appear on the report when the value is selected. Text entered in the Reference Comments box will appear after the report language associated with the dropdown value.

Reference Reason	**Example of Use**	**Report Language**
Permission to Consume (PTC) Requested	Permission to consume evidence was granted.	Permission to consume was granted for one or more items previously addressed in the following report(s).
Triaged Items	A triaged item is now being tested under a subsequent request.	One or more items have been tested that were previously addressed as not analyzed in the following report(s).
Both PTC and Triaged Items	Permission to consume evidence was granted and a triaged item is now being tested under a subsequent request.	Permission to consume was granted for one or more items previously addressed in the following report(s). One or more items have also been tested that were not analyzed previously.
DNA Statistics	Previously reported DNA statistics are being updated.	DNA statistics previously addressed in the following report(s) have been updated.
Previous Testing	Multiple rounds of testing occurred under different requests. Note: this is generally only used for requests of the same service type.	Please refer to the following report(s) addressing previous testing results associated with this case.
Evidence Collection	Items collected under another request (e.g. latent print processing) are now being tested (e.g. forensic biology analysis).	Please refer to the following report(s) regarding collection of item(s) that are further addressed in this report.
Other	Should only be used when none of the other examples outlined in this table fit the situation.	Please refer to the following report(s) that are also related to this case.

TECHNICAL RECORDS (CASE FILE)

The technical record is composed of both administrative and technical documentation.

Administrative records are those that are not generated through testing or calibration activities. These can include:

- Case-related Communications
- Chain of Custody Records
- Submission Information
- Request for Laboratory Services Forms
- Sexual Assault Kit Paperwork

Technical documentation can include:

- Tests Conducted
- Standards and Controls Used
- Diagrams
- Photographs
- Instrumental Data
- Observations
- Calculations
- Work-Product Created

Discipline's Procedure Manuals shall provide more information on the specific content of the technical records for their disciplines.

Technical records are stored at the laboratory primarily in hard copy form, in the LIMS, or in the Digital Asset Management System (ADAMS). Discipline Procedure Manuals will specify the location for technical records that are stored outside of these locations.

All laboratory technical records are identified by a unique identifier. For most testing technical records this identifier is the LIMS case number. For calibration technical records the identifier is the breath test instrument serial number. In circumstances where data is generated that relates to more than one laboratory case (i.e. batch analysis control data) this data may be stored in a single file and referenced in the cases for which it is related. If this occurs, a unique identifier will be created to identify the batch document and this identifier will be present in the technical record for each case in which the data is relevant. An exception to this is the central logs for Forensic Biology database samples. The central logs for database samples contain a list of all associated cases rather than the unique identifier being present in each database technical record. Discipline Procedure Manuals shall address how technical records are identified if a unique identifier other than the LIMS case number or breath test instrument serial number is used.

This unique identifier for hard copy records must be present on each page of the technical record. The unique identifier for electronically stored data must ensure the records are readily identifiable to the test or calibration items to which they pertain. Components of the technical record that are maintained electronically do not require page numbering.

The technical record must contain sufficient information to enable an independent, competent, Forensic Scientist to evaluate the laboratory activities performed and interpret the data. AR 7.5.1.3 To meet this requirement the following shall occur:

1. Analysts will take notes which must include, but is not limited to, all data obtained through the analytical process. It should also include information regarding the packaging of the evidence as received, whether the package was properly sealed and protected from contamination, and any discrepancies noticed between the evidence received and the RLS. All documentation of procedures, standards and controls used, observations made, results of the tests performed, charts, graphs, photographs, digital images, communications, etc., which are used to support the analyst's conclusions, must be preserved. All calibration data that supports issued calibration reports will be retained.
2. If an observation, data, or calculation is rejected, the reason, the identity of the individual(s) taking the action, and the date shall be recorded in the technical record. AR 7.5.1.5 All records will be retained, regardless of whether the information within is rejected, unless specifically outlined otherwise in the relevant Discipline's Procedure Manuals. AR 7.5.1.1
3. The operating parameters of all instrumental analyses conducted will be documented; however, all parameters need not be in the technical record for each case. Each Discipline's Procedure Manual will define the location of this information. Any deviations from the established parameters will be recorded and documented in the technical record.
4. Abbreviations and notations are acceptable if they are clearly documented and comprehensible. Discipline Procedure Manuals will contain a list of common abbreviations, acronyms, and/or symbols that are used by their personnel. AR 7.5.1.2
5. The authorizing analyst, or analyst who signed the report, is responsible for all pages of technical documentation in the technical record unless otherwise noted. When technical records are generated or prepared by an individual other than the analyst who authorizes the report, the individual's name or initials will be on each page of the documentation representing his/her work.
6. The technical record shall contain the date for each laboratory activity including the analyst's review of data and results. A date range is appropriate to record a specific laboratory activity that spans multiple days assuming the activity was being performed each day of the recorded range. For example: If an examination began on Friday and paused over the weekend and then continued Monday and Tuesday. The date for Friday and a date range for Monday through Tuesday would be recorded.
7. If an adjustment or repair is performed due to a calibration that does not meet specifications, pre and post repair/adjustment data will be retained.

Technical records must be created and maintained in a permanent nature. AR 7.5.1.4 The laboratory primarily uses a LIMS to document notes and observations as well as store documents related to testing or calibration activities. Analysts working within the LIMS will document original observations at the time they are observed, directly into the LIMS. If notes or observations are handwritten, they should be in ink, not pencil. (Pencil may be appropriate for crime scene notes, diagrams, or tracings, or when environmental conditions prevent the use of ink.) Handwritten notes or documents created outside of the LIMS must be uploaded into the LIMS to retain the original observations recorded.

No entry may be made on case notes, calibration records, or other records which hides, obscures, or disguises the true nature of any examinations, results, or conclusions. For hard copy records, prior to being uploaded into the LIMS, the incorrect information should be marked through with a single line and initialed. Erasures or use of correction fluids is not allowed. Interlinear additions must be initialed and dated by the person adding the information.

Changes to technical records must be tracked after the records are completed by the **analyst**. Technical records are considered complete when the associated request in LIMS is originally marked draft complete. This date is recorded by the analyst in the request's custom form. ISO 7.5.2

Changes to components of the technical record entered directly into the LIMS are tracked by the audit trail and are available upon request.

- When changes are made to electronic files in the technical record the altered aspects, the person responsible, and the date of the alteration must be clear. If pages are added they will be marked to clearly indicated what was added, by whom, and the date.
- If a data file must be regenerated entirely or the alterations cannot be made clear as described above both the original and corrected data file must be retained.

After a case has been technically and administratively reviewed the only copies of the technical record will be the hard copy file, the electronic record in the LIMS, the electronic record in ADAMS, or the location listed in the Discipline Procedure Manual. Any printed copies are to be shredded once they are no longer needed and additional copies of electronic files should no longer be retained.

Only photocopied or printed copies of electronic case files will be taken from the Laboratory. The exceptions are Crime Scene, Latent Print, and Footwear/Tire Track case files that contain items needed for court. Any other exceptions to this policy must be approved by a member of **Top Management**.

REVIEW OF THE TECHNICAL RECORD/RESULTS

AUTHORIZATION

The initial review of the technical record occurs by the analyst authorizing (or signing) the report.

The analyst shall review the technical record (see Analyst Review of Requests for more information on analyst review requirements) and draft report prior to rolling the request to draft complete. Rolling a request to draft complete adds that analyst signature to the report and signifies the report authorization. ISO 7.8.1.1, AR 7.8.1.1.1

VERIFICATION OF RESULTS AR 7.7.1.G).1

Results that require an independent check on a critical finding (verification) will be performed by another currently authorized and proficiency tested analyst and documented in the case record.

For disciplines that conduct verifications, the Discipline's Procedure Manual shall address the following:

- Criteria for when a verification is required
- Procedures for how a verification is performed and documented
- A conflict resolution policy for use when the verifier and original analyst are not in agreement. The conflict resolution policy must require the resolution to be documented.

REVIEW

REVIEW REQUIREMENTS

The Laboratory will perform technical review on 100% of scientific examination documentation and reports as well as calibration records and calibration reports prior to release. Investigative Reports will have technical reviews performed as described in the Discipline Manual. These will cover the same information as the technical review for a Technical Report just at a different percentage of cases as these cases are meant to provide investigative information.

The Laboratory will perform administrative review on 100% of scientific examination documentation and test reports, calibration records and reports, and investigative reports.

WHO CAN PERFORM REVIEWS

Technical reviews will be conducted by a competency tested analyst who has extensive knowledge of the discipline through casework, supervision, training and/or regular casework review (see Technical Reviewer Training Requirements). Credentials of authorized technical reviewers not employed by SCDL or APD will be reviewed on an annual basis during the internal audit.

Authorization for technical review is documented in an authorization memo (see Authorization For Independent Work) A memo will be approved by a member of **Top Management** to authorize an analyst as competent to perform technical reviews.

Administrative reviews can be performed by a **Technician**, **Analyst**, or member of **Key Management** and can be performed at the same time as the technical review unless the Discipline Procedure Manual requires otherwise.

Neither the technical or administrative reviewer will not have authored or co-authored the components of the technical record or report under review.

REVIEW COMPONENTS

Reviews consist of both technical and administrative functions. If a discipline chooses to divide the technical and administrative review functions differently than listed below the discipline must define the components of the technical and administrative review functions that are to be checked by each reviewer and ensure all components listed below are included in the reviews. **Discipline Supervisors** are responsible for ensuring that all reviewers responsible for technical components are authorized for technical review.

The technical review process ensures the conclusions are reasonable within the constraints of the validated technical knowledge and supported by the examination documentation.

Technical review shall include the entire technical record relating to the request and shall include review of the following components (if applicable):

- Conformance with Laboratory and Discipline procedures
- Ensuring required quality control samples are present and meet established criteria
- Confirming that the data is complete and supports the results and/or conclusions
- Ensuring Test or Calibration reports contain appropriate reporting language
- Ensuring all required information is contained on the report and accurate
- Ensuring associations are properly qualified in the test report
- A review of any manual calculations, calculations performed in unlocked data cells, or data transfers performed in casework ISO 7.11.6

- A review of all case activities associated with the case
    - Must include case activities with intended audience of all and discipline
    - Verify that all deviations from method are documented in case activities and were approved prior to the deviation occurring (see Deviation Requests)

The administrative review process ensures the completeness and correctness of the technical record associated with the request. At a minimum, the administrative review will include:

- A review of the test or calibration report for spelling, grammatical accuracy, and clarity.
- A review of the information contained in the Request Report (see Analyst Review of Requests for more information on the Request Report) compared with information contained in the RLS.
    - Ensure any case info updates are documented in case activities (see **Error! Reference source not found.**)
- A review of the test or calibration report to ensure that all items received are included
- Checking the Chain of Custody (for testing reports only)
    - Must be reviewed for all evidence items related to the request including not retrieved/not analyzed items
    - Ensure most recent date of receipt matches that listed on the report
    - Must ensure evidence that was retrieved was in possession of the analyst during the time of testing (only required for the analyst on the request being reviewed)
    - Ensure all transactions are explainable through routine analysis or case activities

Additional guidelines for the technical and/or administrative review process may be outlined in the Discipline Procedure Manuals.

The **Discipline Supervisor**, **Technical Lead**, or the **DNA Technical Manager** will resolve any differences in opinion between the case analyst and the reviewer.

Technical and administrative reviews are documented in LIMS.

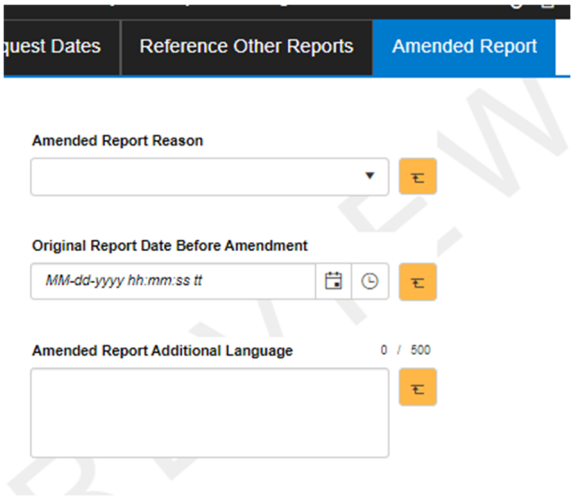
AMENDED REPORTS/LIMS WORKSHEETS ISO 7.8.8

When a change to an issued report is necessary, an amended report will be issued. The need to amend a testing or calibration report will be assessed by **Key Management** and, if necessary, documented through the quality assurance review process. All issued reports are part of the technical record and therefore the original issued report needs to be retained. ISO 7.8.1.2

In disciplines where a worksheet is generated in LIMS separate from the report a new worksheet cannot be issued without generating a new report. **Key Management** will determine if an amendment is necessary to a worksheet and, if necessary, the quality assurance review process will be followed. While all changes made to the worksheet will be tracked in the LIMS audit trail the original worksheet will not be automatically retained so the analyst must save a copy of the original worksheet prior to amendment in addition to the original report.

If it is determined that a report or worksheet needs to be amended, the following actions will be taken in the order below:

1. A copy of the original report and original worksheet (if applicable) will be placed in the case attachments and named “Original Report/Worksheet Before Amendment”, or something similar, with the associated request number.
2. Information will be entered into the Amended Report request custom form tab ensuring that the Original Report Date Before Amendment is filled out before moving on to the next step.



3. The LIMS Administrator or Quality Assurance Manager will review the associated quality assurance review form (QAR) and perform Clear Report Releasable on the impacted request and then roll the request's milestones back to Findings Entered. These actions will be documented in the QAR.
4. Any necessary changes will be made by the assigned analyst and then move forward through the usual review process.

For an amended report the amended report language populated on the report will state "This amended report serves to replace the report issued on *Original Report Date Before Amendment*." The reason for the amended report shall be entered in the Amended Report Additional Language field and will populate on the report after the sentence above. ISO 7.8.8.1

For cases where only amendment to the worksheet is required the amended report reason of "Supporting Documentation Only" is selected and the language on the report will read "This report serves as a redistribution of the report issued on *Original Report Date Before Redistribution* due to a change to supporting documentation. There is no change to the report content aside from this statement and the date of issue. The supporting documentation amendments are available in Level 2 Discovery."

The amended report/worksheet shall be reviewed, and the new report will be issued with a new report issue date. Amendments to the technical record are reissued in Level 2 Discovery.

If necessary to issue a completely new report, the report shall be uniquely identified by the new Analysis Start and End Dates and Report Creation Date and will utilize the same procedure for Amended reports described above only in a new request.

The Breath Alcohol Procedure Manual provides additional information on amended calibration reports.

TECHNICAL RECORD STORAGE/RETENTION

All records will be stored in a secured and confidential manner. Electronic technical records are stored at the laboratory primarily in the LIMS, or in the Digital Asset Management System (ADAMS). Discipline Procedure Manuals specify the location for technical records that are stored outside of these locations.

HARD COPY LABORATORY CASE RECORDS

Hard copy case files and Latent Case File Archives (prior to electronic LIMS) are stored in secure locations of the Crime Lab. Laboratory employees needing to review a case file will send a request to the evidence section. Evidence staff will create an

electronic case in the LIMS and an electronic chain of custody for the case file. An evidence barcode will be affixed to the case file (see Evidence Room Manual). Laboratory staff will ensure all transfers between staff for the case file are recorded in the electronic chain of custody. Discipline supervisors also have access to the case file storage areas for instances where evidence staff are not available; however, whenever possible evidence staff should be responsible for retrieving and logging case files. Case files in possession of laboratory staff will be monitored using the evidence in possession over 60-day report that is reviewed monthly.

TECHNICAL RECORD RETENTION

All testing examination documentation and case records are stored for a minimum of 50 years. DNA Database records and non-consumed/expunged samples will be maintained indefinitely.

All breath alcohol record documentation is retained for 6 years after the breath testing instrument was no longer used in the field.

The laboratory retention and disposal policies follow the current version of the Alaska State Archives Records and Information Management Service Policies and Procedures Manual.

NONCONFORMING WORK

There are two types of nonconforming work, approved and unapproved. Approved deviations or nonconforming work is addressed in DEVIATION Requests. **Any Laboratory member** may identify when nonconforming work or departures from Laboratory's Forensic Quality Assurance Program may have occurred. Any member identifying such potential concerns will immediately notify the **Discipline Supervisor**, **DNA Technical Manager**, **Quality Assurance Manager**, **Assistant Chief**, or **Chief** as appropriate. If a nonconformity is discovered in the Laboratory's testing or results of work or there is a significant deviation from laboratory policies that was not approved the Quality Assurance Review Policy will be followed. ISO 7.10.1, ISO 8.7.1

QUALITY ASSURANCE REVIEW POLICY

Quality Assurance Reviews (QAR) are the process of evaluating risk from either nonconforming work or areas of concern in existing procedures and determining what, if any, action should be implemented. The Quality Assurance Review form is used to document this process and includes documentation and remediation of the incident, evaluation of risk, and any further actions taken.

Risk assessment in a Quality Assurance Review is performed by calculating the Risk Priority Number (RPN). Risk Priority Number is a numerical value calculated and used to evaluate the magnitude of risk. RPN is calculated by evaluating the severity, occurrence, and likelihood of detection of an issue. See Calculating the Risk Priority Number below for more information.

Quality Assurance Reviews include Corrective Action, Preventative Action, and documentation of nonconforming work that does not require action.

THE LAYOUT OF THE QUALITY ASSURANCE REVIEW FORM

The Quality Assurance Review contains multiple sections that are color-coded to identify the party responsible for ensuring each section is completed. The form is designed to be filled out in order and certain steps may not be applicable depending on if the issue is a nonconformance or preventative action and the Risk Priority Number calculated.

SIGNATURE BLOCKS (ORANGE)

There are two sets of signature blocks that serve to demonstrate the QAR has been reviewed. Analysts shall review the QAR prior to discovery and ensure that the QAR is complete enough for release. The following outlines when QARs are available for release in discovery.

- Any QAR that has an action plan (preventative, Level 1 or Level 2 corrective actions) must have the first set approving the action plan signed by the **Quality Assurance Manager,** at a minimum, prior to releasing the QAR for discovery.
- If no action plan is required, then the completion blocks must be signed by the **Quality Assurance Manager,** at a minimum, prior to releasing the QAR for discovery.

STEP 1

Description (Blue)

The first section under Step 1 is a description of the nonconformance or area of concern. This section includes the staff involved, a citation of the procedure involved, a list of impacted cases, any remediation, and an evaluation of the scope of the incident. Topics that may be relevant in describing an incident include:

- How the incident was identified.
- Where the incident occurred.
- Information about how the incident occurred.

This section is initiated by the **staff member identifying the deviation**; however, additional staff members/Discipline Supervisors may provide input or technical assistance if needed.

Remediation and/or Discussion, Evaluation of Scope, Risk Priority Number Determination, and Classification (Grey)

The **discipline supervisor** is responsible for approving and describing any remediation taken as well as discussing the potential impact the nonconformity had on affected cases.

The **discipline supervisor** also must evaluate the scope of the incident. This should include the potential for the nonconformity to be present in other work performed by the analyst, by other analysts, and other disciplines, if applicable. This evaluation should include information on what was done to determine if other work may have been impacted.

After the identification and description of the incident the Risk Priority Number must be calculated to determine the magnitude of risk. The Risk Priority Number is determined by the **discipline supervisor** and the section includes space for the **discipline supervisor** to describe the rationale behind the RPN determination. The RPN calculated by the **discipline supervisor** is used to classify the Quality Assurance Review and determine what, if any, action is needed.

The options for classification include:

- **Level 2 Corrective Action:** When a **nonconformance occurs** and the **RPN ≥ 15** root cause analysis and corrective action are required. In this instance, all steps of the Quality Assurance Review will be filled out.
- **Level 1 Corrective Action:** When a **nonconformance occurs** and the **RPN < 15** no action is required; however, it might be determined that corrective action could improve the current procedures and will be implemented. In this circumstance root cause analysis is not required.
- **Nonconformance with No Corrective Action**: When a **nonconformance occurs** and the **RPN < 15** and there is no plan to implement any form of corrective action this classification is used.

- **Preventative Action:** When **no nonconformance has occurred** but an area of concern with current procedures has been identified this classification is selected. If the **RPN ≥ 15** then an action plan is required. If the **RPN < 15** an action plan is optional. No root cause analysis is required for preventative action.

Additional Actions Needed (Green)

After a classification has been determined the **Quality Assurance Manager** will review the RPN calculation and classification and discuss any additional actions needed with the **Discipline Supervisor**. This includes any customer notification when there has been an impact to casework, halting of work, and disclosure to the accrediting body. See ISO/IEC 5.4.2 for more information on requirements for disclosure to ANAB.

The **Quality Assurance Manager** can be consulted earlier in the process if the issue is severe or assistance with determining RPN is needed.

STEP 2: ROOT CAUSE ANALYSIS

This step is only required for a Level 2 corrective action; however, it is a tool that may be used for any investigation of any nonconformity. Root cause analysis is used to ensure that the cause, rather than just a symptom, of the nonconformance will be prevented from occurring again. The root cause analysis should take into consideration all possible sources of nonconforming work to include an evaluation of the methods, procedures, equipment, supplies, training, work environment, customer agency needs, etc. The **Quality Assurance Manager** is responsible for leading the root cause analysis, but the **Discipline Supervisor** and/or **other staff** may be interviewed or asked for assistance. Upon completion of the root cause analysis, the **Discipline Supervisor** and/or **DNA Technical Manager** will work with the **Quality Assurance Manager** and discuss their findings and create an action plan to address the problem and prevent reoccurrence of the nonconformity.

STEP 3: ACTION PLAN

The **Quality Assurance Manager** should work with the **Discipline Supervisor** and **Technical Lead** to determine the action plan. The action plan must include a timeline and should address how the actions described will reduce components of the RPN. Additionally, the action plan will address a timeline and plan for evaluating the effectiveness of the action plan.

Once an action plan is determined the **Quality Assurance Manager** and **Discipline Supervisor** must sign off on the plan, at a minimum. The **DNA Technical Manager** must sign off on all Action Plans involving Forensic Biology.

STEP 4: IMPLEMENTATION

The **Quality Assurance Manager** is responsible for ensuring the timeline and action plan described in step 3 is followed. This section allows for documentation during implementation of the action plan. The **Discipline Supervisors/DNA Technical Manager** are responsible for ensuring timely completion of the action plan.

STEP 5: EVALUATION OF EFFECTIVENESS

The **Quality Assurance Manager** is responsible for ensuring the evaluation of effectiveness plan described in the action plan is carried out. This section serves to record a summary of this evaluation and the results. If it is determined the corrective or preventative action was not effective or had unintended consequences a new Quality Assurance Review will be initiated by the **Quality Assurance Manager**.

STEP 6: COMPLETION

This step is filled out on all Quality Assurance Reviews and serves to document the review by the **Discipline Supervisor** and **Quality Assurance Manager**.

CALCULATING THE RISK PRIORITY NUMBER

Risk Priority Number (RPN) is a numerical value determined to evaluate the magnitude of risk. RPN is calculated by evaluating the severity, occurrence, and likelihood of detection of an issue.

Severity: The impact that a nonconformance or area of concern has on a customer, customer decisions, or laboratory operations (scored 1-5).

Occurrence: The frequency or likelihood of a specific nonconformance or area of concern happening (scored 1-5).

Detection: The ability of the laboratory to detect the nonconformance or area of concern with existing procedures (scored 1-5).

RPN = Severity x (Occurrence + Detection)

Appendix A: Risk Priority Number Table describes the numerical rating system for scoring the severity, occurrence, and detection of an issue.

For questions on scoring or calculating RPN contact the **Quality Assurance Manager**.

HOW TO INITIATE A QUALITY ASSURANCE REVIEW

A Quality Assurance Review will be filled out at the time a deviation is noted or when an area of concern is identified. The **staff member identifying the deviation or area of concern** should initiate the Quality Assurance Review. Anyone within the laboratory system can initiate a Quality Assurance Review.

The initiator will save the Quality Assurance Review in the appropriate SharePoint document set and if necessary, create a case activity in all case numbers, or instrument serial number cases for calibration, that are involved in the Quality Assurance Review. The title of the Quality Assurance Review will go in the notes field in of the QA- Quality Assurance Review case activity. For preventative actions or nonconformities that do not involve specific cases no case activity is needed. **If additional cases are identified during investigation of the Quality Assurance Review, it is the responsibility of the identifying staff member to add the case activity to those cases.**

HOW TO TITLE A QUALITY ASSURANCE REVIEW

The title of the Quality Assurance Review will be QAR Date Initiated Discipline(s) Affected Initials of the Person Initiating the Quality Assurance Review. (Example: QAR 2022.02.25 Toxicology - Testing BMB). Examples for Discipline options are: Biology, Evidence, Firearm and Toolmark, Friction Ridge, Impressions, Scene Investigation, Seized Drugs, Toxicology – Calibration, and Toxicology – Testing.

If a person is initiating more than one Quality Assurance Review, for the same discipline, on the same day, then the title will be incremented as follows QAR 2022.02.25 Toxicology - Testing BMB_2.

If the Quality Assurance Review affects more than one discipline, upload the QAR into the document set for the discipline in which it was identified and acknowledge the appropriate second discipline in the title. (Example: QAR 2022.02.25 Seized Drugs - Friction Ridge BMB).

If the QAR involves a labwide issue or more than two disciplines, the discipline should be listed as Labwide or All Disciplines and uploaded into the labwide document set. (Example: QAR 2022.02.25 All Disciplines BMB).

Once a document is titled, when the Quality Assurance Review is initiated that will be the name for the remainder of the time. Do not change names further down the line. If you have questions about the title, contact the **Quality Manager** prior to storing the document in SharePoint.

PERSONS RESPONSIBLE FOR EACH SECTION OF A QUALITY ASSURANCE REVIEW

The Quality Assurance Review is color-coded to indicate who is responsible for each section of the form. If at any point, there is a question to the process the **Discipline Supervisor** or **Quality Assurance Manager** should be consulted. The **Discipline Supervisor** is responsible for verifying that the first step of the form is filled out completely, that the case activities were entered into affected cases, that staff involved were notified of the issue, and that any remediation was appropriate prior to forwarding the form to the **Quality Assurance Manager**.

The document sets in SharePoint allow the person modifying a document to assign "Action Needed by" to an individual as well as a field for comments to explain what action is needed. If additional input is needed from a staff member, tag the appropriate person in the "Action Needed" column. This will send an email notification to the staff member; however, members of the laboratory should review the actions needed for their name on a regular basis.

If at any point, when filling out the Quality Assurance Review, case numbers are added to the QAR, the person adding the case numbers to the QAR should create a case activity in the case in the LIMS.

When the **Discipline Supervisor** determines the Quality Assurance Review is ready to be reviewed by the **Quality Manager**, the name of the Quality Manager will be selected in the "Actions Needed by" column. If corrective or preventative action is necessary, then the Quality Manager will be notified directly as soon as possible.

IMPORTANT REMINDERS:

The official copy of the Quality Assurance Review is the one stored in SharePoint. When providing documents for discovery always check the case activities of a case for the QAR title and download the document out of SharePoint (ensure signature blocks are signed.) Copies of QARs should not be stored in the LIMS to avoid confusion if updates to a document occur. If in doubt of the steps listed above, contact the **Quality Assurance Manager** to ensure lab wide consistency.

QUALITY ASSURANCE REVIEW RECORDS

The Laboratory retains records of nonconforming work and corrective actions in the quality assurance records.[ISO 8.7.3]

LABORATORY MANAGEMENT SYSTEM EVALUATION

ASCDL evaluates the effectiveness of its Management System through regular review of policies and procedures (see Controlled Document Revision Requirements), internal audits, external assessments, analysis of data, corrective and preventative actions, management reviews, review of laboratory objectives, and feedback from stakeholders and staff.

FEEDBACK AND SURVEYS

ASCDL solicits feedback regularly from both laboratory personnel and stakeholders. [ISO 8.6.2]

LABORATORY PERSONNEL FEEDBACK

The Employee Engagement Survey solicits feedback from **laboratory personnel** about management styles, policies and procedures, implementation of improvements, and overall satisfaction. The feedback from this anonymous survey is used to identify areas of concern among staff. Responses to survey results can include changes to procedures and objectives, creation of staff working groups to identify potential solutions to concerns and identifying areas for improvement in supervisor management styles.

Laboratory Personnel are also encouraged to provide feedback to **Key Management** either directly or through comment boxes located throughout the laboratory.

LAW ENFORCEMENT FEEDBACK

Feedback from the primary customer of ASCDL (law enforcement) is solicited through surveys and response to complaints (see Complaints [ISO 7.9]). Law enforcement feedback is solicited on submission of evidence policies, item selection policies, customer service, reporting of results, and training services provided.

COURT SYSTEM FEEDBACK

The laboratory solicits feedback from the court system through a variety of mechanisms.

Every 12-18 months a Forensic Science Legal Academy is held for Prosecutors, Defense Attorneys, and Judges where the laboratory educates these stakeholders on laboratory policies and procedures. Feedback is solicited about both the training and the effectiveness of ASCDL procedures for members of the criminal justice system.

Legal System Surveys are used to evaluate the ASCDL interactions with the criminal justice system, report clarity, triage policies, and testimony concerns.

DOCUMENTATION OF FEEDBACK RESULTS

Documentation of all feedback discussion is found in Leadership meeting minutes, Top Management meeting minutes, and the Annual Management Review documentation.

EVALUATION OF RISK AND OPPORTUNITIES

ASCDL will proactively identify areas of potential growth, needed improvement, and/or potential sources of non-conformities. ASCDL personnel are provided opportunities for attendance at outside conferences and trainings to remain current in new and changing technologies and methods in the disciplines. OSAC standard evaluation encourages adoption of national standards and promotes best practices within the disciplines. ASCDL Management evaluates the need for expansion into new services and the laboratory strategic plan outlines top priorities. [ISO 8.5.1]

Top Management evaluates project priority in the Top Management Project Priority Spreadsheet. Projects are rated based on Importance, Scope of Impact, and Urgency. Project complexity and the primary owner are also considered when determining the order in which projects should be pursued.

The Quality Assurance Review Policy is utilized to evaluate risk either preventatively or in response to a non-conformity. **Laboratory personnel** are encouraged to identify potential sources of risk and suggest improvements. **Discipline Supervisors** are responsible for evaluating risk and developing action plans as needed.

AUDITS/ASSESSMENTS

LABWIDE INTERNAL AUDIT

ASCDL conducts an annual internal audit in accordance with the requirements of ISO/IEC 17025 and AR 3125. [ISO 8.8.1, AR 8.8.1.1] The **Quality Assurance Manager** is responsible for planning and organizing the laboratory audit. The scope of each year's audit is recorded in the internal audit plan. [ISO 8.8.2b)] **Laboratory personnel** are responsible for participation in the audit either as auditors or laboratory analysts. **Laboratory personnel** involved in the audit will be trained and instructed about their audit responsibilities by the **Quality Assurance Manager**.

The following define the ASCDL requirements for internal audit design.

The following activities are reviewed by the **Quality Assurance Manager** to ensure they have been completed over the past calendar year:

- Access Levels to Testing Areas
- JusticeTrax Permissions
- SharePoint Permissions
- Evidence Vault Inventory
- Firearms Reference Collection Inventory
- Drug Standards Audit
- Drug Standard Access Memo
- CODIS Access Memo

The **Quality Assurance Manager** completes a review of the following activities:

- Review of Separation Between Incompatible Activities
- Review of Credentials for Technical Reviewers not Employed by SCDL or APD
- Review of Court Testimony and Witness Evaluations
- Quality Review Trends
- Proficiency test summaries
- Training and Authorization Review

Internal audits will include direct observation of a sample of accredited services within each discipline (this sampling may occur throughout the accreditation cycle) and a technical record review of a minimum of 5 case files. [AR 8.8.2.b).1]

In addition to the above components the **Quality Assurance Manager** will include in the audit plan the accreditation requirements to be audited during that year's audit. The selection of accreditation requirements will be based on risk. Factors that may be utilized to determine audit scope include: [ISO 8.8.2a), AR 8.8.1.a).1]

- Risk/importance of activity covered by accreditation requirements
- Scope of previous internal/external audits in the accreditation cycle
- Non-conformities in previous internal/external audits
- Recent procedure/policy changes
- Quality Assurance Reviews

ANAB EXTERNAL ASSESSMENT

ASCDL is accredited to ISO/IEC 17025:2017 and AR 3125 through the accrediting body ANAB. As part of accreditation activities, the laboratory undergoes external assessment by the accrediting body as required. ANAB accreditation operates under a 4-year accreditation cycle with an assessment activity each year. The typical cycle looks as follows:

Year 1 Accreditation/Reaccreditation- Full Onsite Assessment

Year 2 Surveillance Document Review- Conducted Remotely

Year 3 Surveillance Visit- Onsite only covering a portion of disciplines

Year 4 Surveillance Document Review- Conducted Remotely

Year 5 Reaccreditation- Full Onsite Assessment

The **Quality Assurance Manager** is responsible for organizing the documentation and activities for all external assessment activities. **Discipline Supervisors** are responsible for providing required documentation from their disciplines to the **Quality Assurance Manager** when requested. **Laboratory personnel** are expected to participate in external assessment activities as requested.

QAS INTERNAL AUDIT

The Forensic Biology audits will be performed as specified in Standard 15 of the *Quality Assurance Standards for Forensic DNA Testing Laboratories* and *Quality Assurance Standards for DNA Databasing Laboratories*. In general, QAS external audits are conducted alongside onsite external assessment visits from ANAB. These onsite visits align with full reassessment and surveillance visits every other year. In the years where an external audit is not conducted the **DNA Technical Manager** is responsible for organizing a QAS internal audit.

NIBIN AUDITS

ASCDL will participate in the ATF audit program as described in the MROS-NIBIN document. The **NIBIN Program Administrator** will coordinate with the laboratory **Quality Assurance Manager** to facilitate the planning, implementation, documentation, and follow-up of regular ATF audits at the basis set by ATF.

CORRECTIVE ACTIONS RELATING TO AUDIT/ASSESSMENT

ASCDL will evaluate all non-conformities found during audits/assessment through the Quality Assurance Review Policy. Non-conformities to accreditation or audit requirements are not required to be evaluated for risk as they will proceed through root cause analysis and corrective action regardless of risk.

ASCDL will ensure corrections or corrective actions due to audit/assessment findings are made without undue delay. ISO 8.8.2d)

AUDIT/ASSESSMENT DOCUMENTATION

Records shall be kept for all internally conducted audits to include the audit plan, any audit findings, records generated by auditors, and any Quality Assurance Reviews resulting from audit findings. ISO 8.8.2e)

Records for external audits/assessments will include the final assessment/audit report and any Quality Assurance Reviews resulting from audit findings.

Records are retained in SharePoint for a period of at least 10 years.

ANNUAL MANAGEMENT REVIEW

Key Management participate in an Annual Management Review will be held after completion of the annual internal audit. The Annual Management Review is an opportunity for **Key Management** to evaluate the management system, policies and objectives, and future planning for the laboratory. ISO 8.9.1, AR 8.9.1.1

Key Management will conduct reviews of the Laboratory Management System and testing and/or calibration activities to ensure their continuing suitability and effectiveness. The review will take account of: ISO 8.9.2

- Changes in internal and external issues that are relevant to the laboratory
- Fulfillment of Objectives
- Suitability of policies and procedures
- Status of actions from previous management reviews
- Outcome of recent internal audits
- Corrective and preventive actions
- Assessments by external bodies
- Results of inter-laboratory comparisons or proficiency tests
- Changes in the volume and type of work
- Customer and personnel feedback
- Complaints
- Effectiveness of any implemented improvements and recommendations for improvement
- Adequacy of resources
- Results of risk identification
- Outcomes of the assurance of the validity of results
- Other relevant factors, such as quality control activities, resources and staff training

The **Quality Assurance Manager** is responsible for organizing and compiling an agenda meeting the above requirements for the Annual Management Review. **Key Management** are responsible for providing updates and feedback on agenda items.

Updates to objectives, action items, and records of discussion topics are retained in the Annual Management Review summary. Records of Laboratory Management reviews will be stored in the quality assurance records for at least ten years. ISO 8.9.3

After the Annual Management Review, **Top Management** holds regular meetings to monitor the progress on action items and objectives as laid out in the Annual Management Review. Records of these discussion are found in the Top Management Meeting Minutes.

To more frequently review some of the above topics Quarterly QA/Metrics meetings are held with each of the disciplines. These cover Quality Assurance Reviews, changes in volume and type of work, review of progress on discipline objectives, staff training, discipline resource needs, and other quality control activities. Records of these meetings are found in the Discipline Quarterly QA/Metrics Meetings.

STAKEHOLDER INTERACTIONS

INTERACTIONS WITH THE COURT SYSTEM

TESTIMONY POLICY

The purpose of this policy is to describe the laboratory guidance for how testimony should be handled. Court orders and subpoenas are legally binding and may supersede this policy. The laboratory may seek guidance from **DPS legal counsel** before expending resources when deemed necessary.

- In cases in which a laboratory testing report was released, laboratory staff will testify for prosecution or defense counsel.
- In cases where the laboratory has not performed testing in the case, the **discipline supervisor** should contact the prosecution to determine if there will be evidence submitted to the laboratory for analysis in the future.
    - If the prosecution intends to submit evidence this should be communicated to the defense attorney. If, after testing has concluded, the prosecution decides laboratory testimony is not needed laboratory personnel may testify for the defense.
    - If the prosecution does not intend to have evidence tested at the laboratory, the procedure for no lab involvement cases described below will be followed.
- For breath program cases or no lab involvement cases, the **discipline supervisor** will address requests for testimony with the requesting party. Current personnel resources and a determination of whether the laboratory has unique in-state expertise to answer probative questions will be considered when making the decision. Testimony services for no lab involvement cases will not be provided to privately retained counsel.

If one analyst in a scientific discipline has already testified or is scheduled to testify, ASCDL **will not** provide another analyst in the same discipline to testify for opposing legal counsel.

Laboratory analysts are trained to testify to the laboratory chain of custody, evidence handling, item selection, and policy decisions. Laboratory personnel who did not issue testing reports will not routinely testify in court. If there is a specific circumstance that requires additional laboratory personnel, the requesting party should speak to the **discipline supervisor**.

Due to limited resources, the laboratory is opposed to routine testimony at grand jury hearings. If the requesting party feels there is a strong need for a staff member to testify, they should speak to the **discipline supervisor** who will consider the request.

Once a laboratory staff member is noticed up as an expert, one-sided conversation (verbal or written) with opposing counsel should be avoided. See Ethics Opinion No 85-2 (Ex Parte Communication with Experts Retained by Opposing Counsel) for more details.

SUBPOENAS

Laboratory personnel frequently receive requests for testimony. Subpoenas are generally issued to analysts via email from the requesting party. It is the responsibility of the subpoenaed analyst to communicate regarding availability concerns. At the time a subpoena is received the analyst shall verify that level 2 discovery has been provided and is current (see Discovery Levels for more information).

See **Error! Reference source not found.** for more information on how the ASCDL handles subpoenas issued to laboratory personnel.

NOTICE OF EXPERT (NOE)

The ASCDL assists in the preparation of NOEs by providing templates that contain current technical information that may be relevant in NOE preparation. This information is not intended to replace communication with the filer of the NOE and may require supplementation with case specific information.

Laboratory personnel will review NOEs when requested and provide feedback and corrections if needed. The filer of the NOE is ultimately responsible for the content of the NOE; however, laboratory personnel are responsible for timely communication about NOE content.

When an NOE is provided to laboratory personnel for review the review shall be documented in the case activities. For breath alcohol cases, a case shall be created if one does not already exist (see **Error! Reference source not found.** for more information on case activities).

DISCOVERY

As part of court proceedings, the laboratory is asked to provide records associated with testing or calibrations performed. The following describes how the laboratory defines the following records associated with testing or calibration.

DISCOVERY LEVELS

There are different levels of discovery provided by the laboratory. The content of each of these levels is described below along with their intended purpose.

LEVEL 1 – INITIAL DISCOVERY

The only record provided in Level 1 discovery is the final report that was disseminated upon testing completion.

LEVEL 2 – FULL DISCOVERY PACKET

Any record that would be relied upon for analysis, reporting, conclusions, opinions, or testimony in a specific case is provided in Level 2 discovery.

All testing disciplines will include the following when fulfilling a Level 2 discovery request:

- Testing Report
- Case Chain of Custody (COC) Report
- Case Info Report (which includes case activities, evidence intake corrections, and request milestones)
- Quality and LIMS Documents Referenced in Case Activities (e.g., QARs, DRFs, COC edit forms)
- Case and Request Attachments (e.g., RLS, instrument printouts, worksheets)

The following discipline specific records will also be provided when applicable:

- Control Pack (Blood/Beverage Alcohol)
- Central Log (Biology)
- Digital Images (Latent Print, Footwear, Firearm/Toolmark, and Crime Scene)

Staff should direct criminal justice practitioners to the crime lab website for statements of qualifications and laboratory procedure manuals.

LEVEL 2 - DISCOVERY PROMPTING EVENTS

Failure to provide discovery in a timely manner before trial can lead to continuances as well as prevention of related expert testimony. See Alaska Rules of Criminal Procedure (Rule 16. Discovery) for more details. To minimize the occurrence of these issues, **the laboratory will proactively provide Level 2 discovery when a subpoena is issued for expert testimony or when an expert is requested to testify**. When Level 2 discovery is requested by the defense, laboratory personnel shall provide the discovery to the defense through the assigned prosecutorial agency.

LEVEL 2 - SUPPLEMENTAL DISCOVERY

Whenever it is determined that Level 2 discovery should be provided, the case record will be reviewed to assess whether this has already occurred. If it has, an abbreviated supplemental Level 2 discovery will be disseminated if anything has changed since the original discovery (e.g., chain of custody, case activities, quality documents). Records that have not changed since the original discovery do not have to be disseminated again after a discovery prompting event.

A supplemental discovery assessment will also occur **If there is a significant delay between when an expert is requested to testify and when they are actually preparing to do so (e.g., an unexpected court continuance occurred).**

LEVEL 3 – RECORDS NOT COVERED BY LEVEL 1 OR LEVEL 2

Requests made for information not listed above, such as raw data, proficiency test results, training records, accreditation information, validation reports, etc., must go through the **Quality Assurance Manager** to determine next steps. Depending on the feasibility and resources needed, a motion to compel may be requested before the request is fulfilled.

Copyrighted or licensed materials will not be copied or disseminated by the Laboratory and can only be released by the owner of the information or documents.

Public information not proprietary to the Laboratory (vendor, instrument or software manuals, journal articles or papers) will not be provided by the Laboratory.

BREATH PROGRAM DISCOVERY LEVELS

Level 2 Discovery for the breath alcohol discipline includes the following items available on the crime lab webpage:

- Verification of Calibration Reports
- All Instrumental Records (DataMaster DMT Records)
- List of all breath records from all instruments (DataMaster DMT Breath Test Records)
- DataMaster Software Approvals
- Current Breath Test Operator List
- Breath Alcohol Manuals

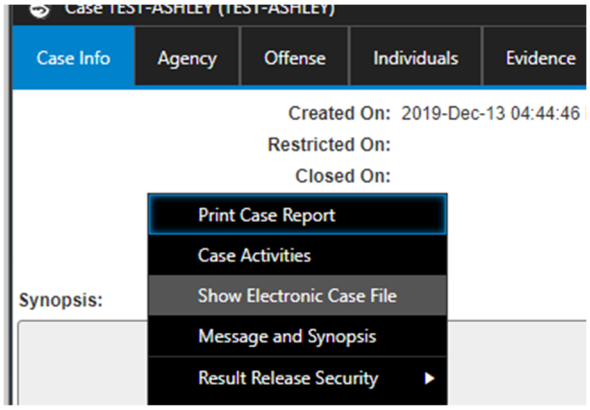
- Certificates of Analysis for external controls
- Calibration certificates for calibrated equipment (used by calibration program - not DataMaster Calibration)
- In Field Instrument Reviews
- Statements of Qualifications

Refer to the Breath Alcohol Procedure Manual for more information breath program records.

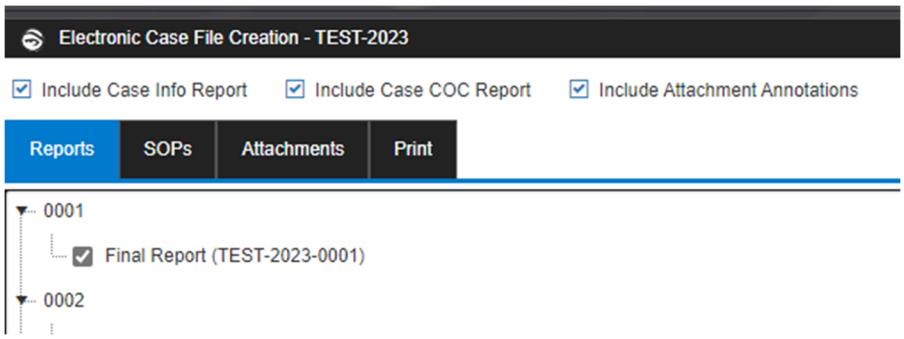
Level 3 Discovery for the breath alcohol program follows the same requirements as the testing program see Level 3 – Records not Covered by Level 1 or Level 2.

ELECTRONIC CASE FILES AND DISCOVERY PACK GENERATION

JusticeTrax has an electronic case file generation tool that retrieves case documents and merges them into a single pdf document. This tool is accessed by right-clicking in the Case Info tab and selecting “Show Electronic Case File”.



Previously generated Electronic Case Files are shown, and new ones can be created by clicking the Add button in the lower left corner.



The following documents will be included when generating an electronic case file for Level 2 discovery (see Discovery Levels) for further protocols on discovery levels and discipline specific requirements):

- Case Info Report (this report includes any activities recorded in the associated case)
- Case COC Report
- All final reports associated with the discovery request scope
- All attachments associated with the final reports included (e.g., instrumental data and notes)

- All case attachments associated with the discovery request scope (e.g., request for analysis forms and other submitted documents)

LEVEL 2 DISCOVERY PACK GENERATION AND DISTRIBUTION

The electronic case file pdf and any other documents needed to meet the Level 2 discovery request will be merged to a single document before distribution. The merged document will also be page numbered (Page N of M) and each page will be stamped with a header, footer, or watermark with the format DISCO-date generated-initials of person generating packet. If multiple discovery packets are generated on the same date, a prefix such as -1, -2 can be used to distinguish them. The file name for the document will be the same as the header/footer/watermark.

> Note: If files with formats not amenable to pdf merging are to be provided (e.g., raw image files) two options are available.
>
> 1. The files can be added to a compressed zip file along with the merged pdf discovery pack. This zip file will be named in the same format as described above and uploaded in lieu of the merged pdf. The Batch Upload option must be used to upload this file type.
> 2. The file names can be added to the court discovery case activity along with the discovery pack identifier indicating which files were provided.

The Level 2 discovery document (pdf or zip) will be uploaded as a case attachment after distribution.

> Note: There is a 50 MB file size limit when uploading attachments. If the discovery document exceeds this limit, it will need to be split up into separate parts, each below 50 MB. These parts will then be uploaded as separate attachments.

For multi-disciplinary discovery requests, each discovery pack generated will include the Case Info Report, Case COC Report, and all case attachments.

Contents of any related cases (accessed through the Case Info tab in LIMS) that fall under the scope of Level 2 discovery, as described above, must also be included in the discovery packet.

A Court-Discovery lab activity will be entered to record when the discovery was provided, to whom, and how much time was spent responding to the discovery request.

LEVEL 3 DISCOVERY DOCUMENTATION

Documentation requirements when Level 3 discovery is provided will vary based on the request's breadth and complexity. Refer to Level 3 – Records not Covered by Level 1 or Level 2 for more information regarding Level 3 discovery requests.

At a minimum, a Court-Discovery lab activity will be entered in the same manner as described above. If the **Quality Assurance Manager** deems it impracticable to merge and/or attach the records discovered to the case file, a list detailing what was provided may be included in the associated Court-Discovery case activity instead.

NICE PORTAL

Department of Law (DOL) uses the NICE program for discovery requests and submission.

NICE is accessed at https://us1business.digital-policing.com.

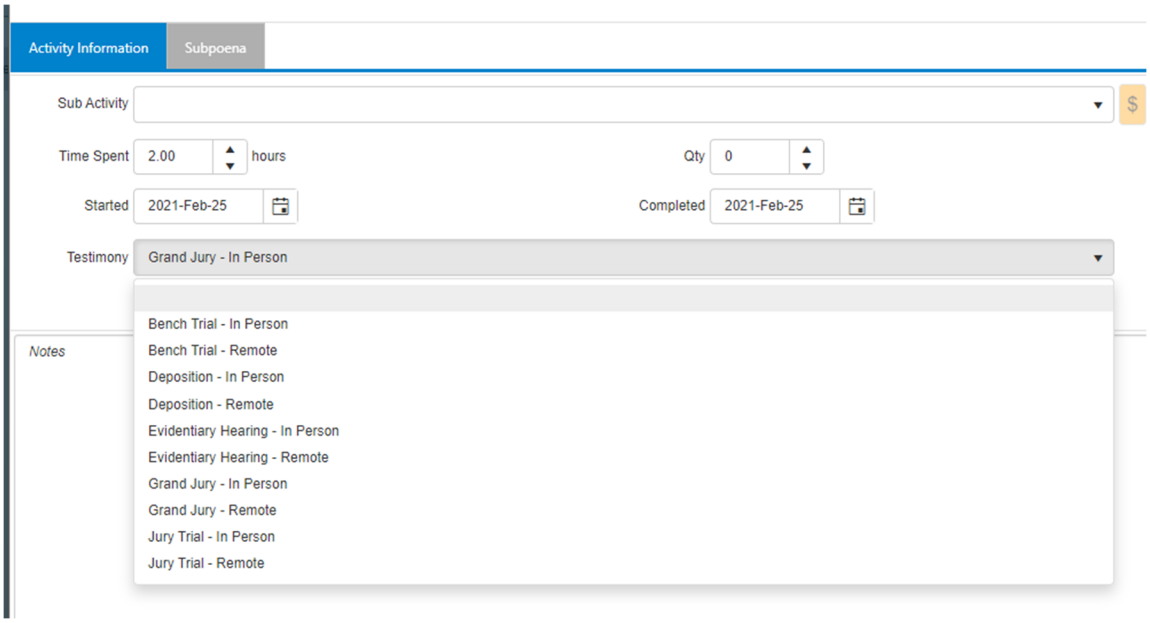
Laboratory personnel that received requests for discovery or have a discovery prompting event from DOL should request a NICE link be sent to them for uploading the packet.

For more information on how to distribute technical records to other customers see Methods of Dissemination.

TRACKING COURT TESTIMONY

Laboratory personnel who are called to testify in court are asked to keep a record of testimony in the LIMS. The information is used to populate the Court Testimony Crystal Report which is used for documentation of all cases the analyst has testified in as required for Federal Court proceedings. This information is also used to review time spent traveling and waiting for court versus time spent testifying and to track staff testimony regarding testimony monitoring requirements (see Testimony Monitoring for more information). To ensure the information being pulled is as accurate as possible the following instructions are provided to assist in documentation.

Below is a screenshot of a Court-Testimony activity entry (Activity Information tab) and descriptions of how each field is to be used:



Sub Activity: Not used

Time Spent: Used to record compensable time associated with the testimony activity (travel, waiting, testimony). The Compensable Time Calculator spreadsheet will be used to calculate the number of hours recorded in the Time Spent field.

Qty: Used to record the number of hours testifying. The table below lists how Qty is determined based on hours:

Hours Testified	Qty entered
Did not testify	0
Less than 1.5 hours	1
1.5 hours to less than 2.5 hours	2
2.5 hours to less than 3.5 hours	3

Started: Used to record the date in which the testimony activity began (i.e., the first date including compensable time on the Compensable Time Calculator spreadsheet).

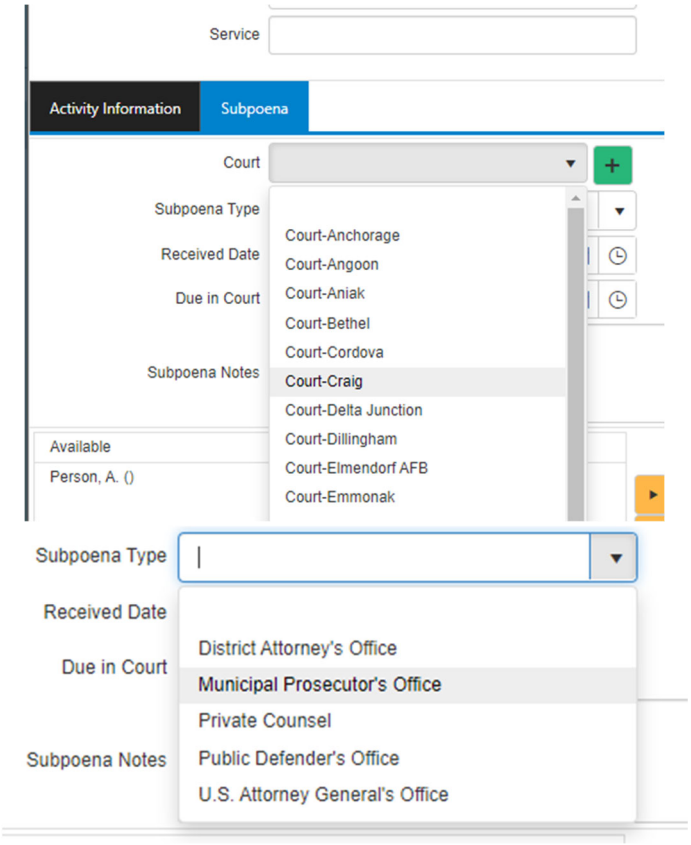
Completed: Used to record the date in which the testimony activity ended (i.e., the last date including compensable time on the Compensable Time Calculator spreadsheet).

Testimony: Used to record the appearance type and format associated with the requested testimony.

Subpoena Issued: Checking this box will activate the Subpoena tab. This tab will be used regardless of whether a subpoena was issued so check this box whenever adding a Court related activity.

Notes: Used to record any notes about the related activity.

Below is a screenshot of a Court-Testimony activity entry (Subpoena tab) and descriptions of fields that must be filled out:



Court: Lists all court locations in Alaska. Select the court in which testimony was requested.

Court Case Number: This is a required field in LIMS. If the court case number is not readily available, "Not Entered" can be added to this field instead.

Subpoena Type: Lists the parties that request testimony. Select the appropriate value for who requested the testimony that is being recorded.

ATTORNEYS OR INDEPENDENT EXPERTS IN LABORATORY FACILITIES

Attorneys or independent experts (non-Laboratory employees) are not permitted to perform or view scientific examinations in Crime Laboratory areas nor can video recording occur. The reasons for this policy are as follows:

- Liability - Outside personnel are not familiar with the Crime Laboratory, its potential hazards, safety rules, OSHA mandated Chemical Hygiene Plan**,** Exposure Control Plan, and specific equipment operation.
- Security - Outside personnel would be disruptive to the normal work routine since all other regular case work would have to be stopped and secured while they were using the facility. To do otherwise would undoubtedly raise questions and possible objections on other cases. Laboratory security requires a continuous escort for visitors. Valuable examination time would be lost by Laboratory personnel providing this escort service.
- Property Damage - The Laboratory utilizes a myriad of sophisticated instrumentation. State funding has been provided to ensure that Laboratory personnel can operate this equipment in a proper manner. It would be impossible to determine the competency of others prior to their use of the Laboratory's specific make and model of instrumentation.
- Fiscal Responsibility - Use of state equipment by outside experts would prevent its use for current case examination by Laboratory personnel. It must be realized that private experts represent a commercial and often lucrative enterprise. Therefore, it should be incumbent upon them to provide their own equipment and supplies, rather than having state facilities made available to them at the State's expense.
- Feasibility – The laboratory is arranged in such a way that allowing people or video equipment into the space would hinder the movement of the analyst or prevent view of the evidence. Additionally, multiple locations in the laboratory space are used at various times throughout analysis with continuous movement by the analyst into and out of lab space and instrument rooms and a stationary location for video equipment would not capture the full analysis.
- Contamination – Irregular persons entering the space (specifically DNA) present increased potential for contamination.
- Defense attorneys have the right under the Alaska Rules of Criminal Procedure to have evidence reanalyzed at a laboratory of their choice, rather than disrupting Laboratory operations.

Attorneys or non-Laboratory Forensic Experts will make arrangements to view evidence by contacting the case officer or prosecutor who will then coordinate the time and place of viewing with appropriate Laboratory personnel.

COMPLAINTS ISO 7.9

Complaints regarding laboratory personnel, policies, or procedures may come from internal or external sources (e.g., officers, prosecutors, defense attorneys, and the public). Complaints could be written or communicated orally. ASCDL management is responsible for ensuring that complaints are investigated and resolved appropriately.

Laboratory personnel that receive a complaint should resolve the issue, if it is within their responsibility, and notify the appropriate member of **Key Management**. When a staff member receives a complaint, they should make an effort to obtain all pertinent details from the complainant that could assist in the investigation of the complaint. This could include:

- The circumstances of the complaint
- Names of involved parties
- Contact information for the complainant

If the staff member determines it is appropriate the contact information for the complainant can be provided to the appropriate member of **Key Management** for the purposes of receiving the complaint details.

The following steps outline the procedure for investigating and remediating complaints:

- Complaints against a laboratory employee are handled as outlined in the Alaska Department of Public Safety Operating Procedures Manual (OPM), Chapter 111.
- The Laboratory shall gather and verify all necessary information to validate the complaint ISO 7.9.4
- If it is determined the complaint involved laboratory activities ASCDL is responsible for the complaint will be addressed
- Complaints involving non-conforming work shall follow the Quality Assurance Review Policy
- The Laboratory shall acknowledge receipt of the complaint and provide the complainant with progress reports and the outcome when allowable ISO 7.9.5
- The outcomes to be communicated to the complainant shall be made by or reviewed and approved **Key Management** not involved in the original activities in question ISO 7.9.6
- Whenever possible, the Laboratory shall give formal notice of the end of the complaint handling to the complainant ISO 7.9.7

COMPLAINT DOCUMENTATION

For written complaints, a copy of the written complaint will be retained in the complaint record. For complaints received orally a summary of the complaint and pertinent information received from the complainant will be documented and retained in the complaint record.

Any additional information collected during the course of investigating the complaint shall be documented in the complaint record.

Communications with the complainant about progress or outcome of the complaint shall be documented in the complaint record.

Complaint records not pertaining to personnel investigations are retained in the Quality Assurance Records. Complaints against a laboratory employee are documented as required in the OPM.

APPENDIX A: RISK PRIORITY NUMBER TABLE

Severity	Ranking		Occurrence	Ranking		Detection	Ranking
Management system failure, Major effect on reported results impacting multiple cases or batches of cases. Analyst intent was to mislead.	5		Very High- Failure is frequent or very likely (estimated greater than 25%)	5		Remote: Not likely to be uncovered in laboratory or outside of laboratory.	5
Incorrect results reported, loss or destruction of critical evidence. Major effect on reported results of a single case or batch of cases. Major effect on laboratory staff or customers.	4		High- Failure is repeated or likely (estimated 5-25%)	4		Low: Not likely to be uncovered with existing laboratory preventative measures but may be uncovered outside of lab.	4
Moderate effect on reported results for a single case or batch of cases, laboratory staff, or customers.	3		Moderate: Failure is occasional (estimated less than 5%)	3		Moderate: May be uncovered through existing preventative measures by either analyst or reviewers	3
Low effect on reported results, laboratory staff, or customers	2		Low: Failure is seldom (estimated less than 1%)	2		High: Should be uncovered through existing preventative measures by either analyst or reviewers	2
Virtually no effect on reported results, laboratory staff, or customers, easily correctible	1		Remote: Failure is not likely or improbable.	1		Very High: Likely to be uncovered through existing preventative measures by analyst	1

Likelihood (Occurrence + Detection)

	Unlikely	**Minor**	**Very Low**	**Low**	**Moderate**	**Serious**	**High**	**Very High**	**Critical**
Severity	2	3	4	5	6	7	8	9	10
5	10	15	20	25	30	35	40	45	50
4	8	12	16	20	24	28	32	36	40
3	6	9	12	15	18	21	24	27	30
2	4	6	8	10	12	14	16	18	20
1	2	3	4	5	6	7	8	9	10

APPENDIX B: HEALTH AND SAFETY PROGRAM

INTRODUCTION

The health and safety program for the State of Alaska Scientific Crime Detection Laboratory (SCDL) is outlined in this section. The purpose of the program is to provide a safe environment for all laboratory employees and visitors to the laboratory, and to ensure that all laboratory employees conduct work in a safe manner.

This is not an all-inclusive resource of health and safety information. It is one source of information that provides basic guidelines for maintaining a healthy and safe work environment at the laboratory. All laboratory employees should use this as a reference guide to assist them in performing their day-to-day work activities to ensure their safety as well as the safety of those who could be impacted by those activities.

GENERAL LAB AND SAFETY PROCEDURES

Good laboratory practices require that every Laboratory employee observes the following rules:

SAFETY FEATURES AND HAZARD IDENTIFICATION

- Ensure all emergency and safety equipment, first aid cabinets, and exits are clearly marked and not blocked.
- Ensure hazard warning signs, such as biohazard, laser, etc., are posted at appropriate locations.
- Familiarize yourself with all the special safety features of the laboratory and, most importantly, your specific work area(s). Know the location and correct use of all available safety equipment.
- Familiarize yourself with all the special sample handling and waste disposal procedures of your specific work area(s).
- Familiarize yourself with spill cleanup and accident response procedures for your specific work area(s) and the laboratory in general.
- Familiarize yourself with any special health and safety requirements of test procedures before beginning and strictly adhere to them.
- Determine potential hazards and appropriate safety precautions before beginning a new procedure and confirm that existing safety equipment is sufficient for this procedure.
- Consult the safety data sheet (SDS) prior to using an unfamiliar chemical and follow the proper procedures when handling or manipulating all hazardous agents.
- Inspect all chemicals, equipment and instrumentation before using. Do not use if defective.
- Use chemicals, equipment and instrumentation only for their intended use.
- Glassware should be handled carefully and properly stored.
- Follow operating instructions to use and maintain chemicals, equipment, and instrumentation properly.

CHEMICAL STORAGE AND WASTE DISPOSAL

- Ensure that all chemicals, biological materials, and chemical wastes are labeled and stored correctly according to the manufacturer's recommendations and any guidelines set forth in the Health and Safety Appendix of this manual.
- Ensure that all chemical and biological waste is disposed of properly, following SDS guidelines and any guidelines set forth in Health and Safety Appendix of this manual.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Wear eye protection and sufficient PPE to protect you from spills or exposure.
- Closed-toed shoes shall always be worn in rooms where chemicals are stored or used. Perforated shoes or sandals shall not be worn in laboratories or where mechanical work is conducted. Chemical resistant overshoes or boots may be used to avoid possible exposure to corrosive chemicals or large quantities of solvents or water that might penetrate normal footwear (e.g., during spill cleanup).
- Confine long hair and loose clothing while performing laboratory work procedures.

CONTAMINATION/EXPOSURE PREVENTION

- Smoking is prohibited in the SCDL building (AS 18.35.300).
- No eating, drinking, or storage of food or beverages in laboratory work area.
    - Consumption of food and beverages is permitted in the following laboratory areas: front lobby area, classroom, reception area, multipurpose room, and offices that are completely separated by a barrier (e.g., door, window, wall) from the laboratory work area.
- Remove all protective equipment, including gloves and lab coats, before entering the restroom, front lobby area, classroom, reception area, multipurpose room and offices that are completely separated from the laboratory work area.
- Wash hands with soap and water before leaving the laboratory area.
- No laboratory work area utensils, glassware, apparatus, equipment or chemicals are allowed in non-work areas.
- Avoid unnecessary exposure to chemicals by any route; especially do not inhale, taste or touch.
- No mouth pipetting.
- Avoid exposure to gases, vapors, aerosols, and particulates by using a properly functioning laboratory exhaust (fume) hood.

GENERAL LABORATORY SAFETY

- Horseplay and other behavior which might confuse, startle or distract workers will not be tolerated
- Ensure that authorized visitors are equipped with the appropriate safety equipment prior to entering the laboratory work area.
- Be alert to unsafe conditions; correct them or report them to your Supervisor promptly, as appropriate.
- If you have any questions, keep asking until you get a satisfactory answer.

CHEMICAL HYGIENE PLAN

A hazardous material is defined as *any* substance which presents a physical or health hazard as determined by scientific evidence or as dictated by state or federal regulations. For many chemicals, the degree of hazard is still unknown, so good practice dictates that all chemicals used in the laboratory be treated as potentially hazardous.

Laboratory employees working with or around chemicals, biological materials, or radioactive materials are responsible for exercising caution and handling hazardous materials in a safe manner. If employees are unsure of a hazard or safety procedure, they should ask the Safety Coordinator, the Discipline Supervisor, or refer to the safety literature, including Safety Data Sheets, before using a chemical or procedure. The policies and guidelines contained herein are intended to apply to the Laboratory facility in its entirety.

GENERAL

- Assume that any unfamiliar chemical is hazardous.
- Become familiar with Safety Data Sheets (SDS) and know all the hazards of the chemicals with which you work (see Safety Data Sheet page(s) of this section).
- Consider any mixture to be at least as hazardous as its most hazardous component.
- Never use any substance if you are unsure of its identity or integrity.
- Follow all chemical safety instructions.
- Minimize your exposure to any chemical, regardless of its hazard rating.
- Use personal protective equipment (PPE) as appropriate.
- A person's own safety and that of his/her colleagues should always be considered.
- Report any potentially hazardous situations to the **Discipline Supervisor, Safety Coordinator**, or **Top Management**
- Keep routes to exits free of obstructions.
- Keep your work area clean and orderly and free of unnecessary chemicals, equipment and personal items.
- Use proper lifting techniques for heavy items.

PERSONAL PRECAUTIONS

- No food or drink is allowed in the areas of the laboratory where evidence or chemicals could be present.
- Wash hands frequently with soap especially if skin contact is made with any chemical.
- Avoid touching unprotected body areas with gloved or unwashed hands.
- Use caution when wearing contact lenses because of solvent, acidic and basic fumes.
- Personal protective equipment such as safety glasses, shields, gloves, and lab coats should be used when handling chemical materials.
- Eye protection should be worn whenever there is danger of injury to the eyes. Appropriate eye protection shall be worn when using sources of ultraviolet, infrared, alternate light sources, and laser radiation.
- Do not place objects which may become contaminated into the mouth (e.g. pens).
- Smoking is prohibited in the ASCDL building (AS 18.35.300).
- No eating, drinking, or storage of food or beverages in laboratory work area.
    a. Consumption of food and beverages is permitted in the following laboratory areas: front lobby area, classroom, reception area, multipurpose room, and offices that are completely separated by a barrier (e.g., door, window, wall) from the laboratory work area.
- Remove all protective equipment used in the laboratory space, including gloves and lab coats, before entering the restroom, front lobby area, classroom, reception area, multipurpose room and offices that are completely separated from the laboratory work area.
- No laboratory work area utensils, glassware, apparatus, equipment or chemicals are allowed in non-work areas.
- Avoid unnecessary exposure to chemicals by any route; especially do not inhale, taste or touch.
- No mouth pipetting.
- Avoid exposure to gases, vapors, aerosols, and particulates by using a properly functioning laboratory exhaust (fume) hood.

PROCEDURAL

- Always read the label on a container before using the contents. Do not use chemicals from unlabeled bottles.
- Do not return unused chemicals to the original stock container. Discard into the appropriate waste container.

- When diluting an acid, pour the acid slowly into water, never the reverse.
- Do not pour solvents down sinks or drains. Waste containers should be utilized for disposal.
- Procedures involving potentially hazardous materials shall be performed in fume hoods whenever possible.
- Keep fume hoods clean and orderly. Store only those chemicals which are used regularly. Large quantities should be stored elsewhere in the proper storage area.
- A solution such as hypochlorite (bleach) or a disinfectant spray may be used for routine decontamination procedures.

EMERGENCY

- Know the location of exits, fire alarms, first aid kits, Narcan® opioid overdose rescues kits, AED and emergency phone numbers.
- Know the location and proper use of safety equipment such as the emergency showers, eyewashes, fire extinguishers, and chemical spill kit.
- Contain chemical spills and clean them up as soon as possible. Notify the **Safety Coordinator** or the **Maintenance Staff** as soon as the spill is identified.

HAZARD COMMUNICATION

State and federal regulations have been enacted to protect employees against hazardous materials on the job. To remain compliant with these regulations the lab shall require:

- A yearly inventory of chemicals within the laboratory
- Access to Safety Data Sheets for each hazardous chemicals used
- Proper labeling of all containers of hazardous materials
- A Safety Manual and Chemical Hygiene Plan (this section)
- An employee training program covering the hazardous substances with which they work (see Safety Training).

With assistance from the Safety Coordinator, the Discipline Supervisor should ensure that information on newly acquired chemicals is added to the chemical inventory, SDS are maintained for all chemicals stored in their Discipline, proper labeling guidelines are being followed, and new employees are informed of safety policies and practices within the Laboratory. Yearly chemical inventories conducted by each discipline will be submitted to the Safety Coordinator and stored.

COMMUNITY RIGHT-TO-KNOW PROGRAM (CRTK)

Owners or operators of facilities that have hazardous chemicals on hand in quantities equal to or greater than set threshold levels must submit Tier Two forms annually by March 1 online. The Safety Coordinator, a member of Top Management, or a member of maintenance is responsible for completing this annually. The purpose of the Tier Two form is to provide State and local officials and the public with specific information on hazardous chemicals present at our facility during the past year. Currently, the 1- liter nonflammable gas mixtures utilized in the Breath Alcohol program require annual reporting.

This program also details the requirements for the National Fire Protection Association (NFPA) placards that are posted at the front, employee and service entrances.

The website used for filing the form is https://tier2.erplan.net/onlinefiling/filingLogin.htm and the laboratory's User ID is 1061503. The password can be updated as needed by the person filing annually.

Additional information regarding this program is stored with the Safety Coordinator and can be found on the municipality website here: http://www.muni.org/departments/fire/prevention/pages/crtk.aspx Updates to local reporting thresholds and requirements can also be found at the municipality website and on the state's Division of Spill Prevention and Response webpage: https://dec.alaska.gov/spar/ppr/prevention-preparedness/tier-ii-reporting/ . The following website can be used to plan the filing of the Tier II form: https://erplan.net/news/Tier2SubmitUsersGuide/UsersGuide.html The EPA website offers more information about the Tier II Form as well. https://www.epa.gov/epcra

SAFETY DATA SHEETS

A Safety Data Sheet (SDS) is prepared by the manufacturer of a product containing 1% or more of a hazardous substance (or 0.1% if it is a carcinogen). The SDS is a document containing a description of the hazards and precautions associated with a product. A product may contain more than one hazardous substance but will require only one SDS.

Manufacturers and distributors are required to provide an SDS to any purchaser. If one is not received, it should be requested. The Safety Coordinator has information on obtaining a missing SDS.

SDS sheets for the laboratory and individual disciplines are filed online at:
https://chemmanagement.ehs.com/9/faed3d29-422f-49f2-a8e1-0245e3600752/ebinder/?nas=True

In addition, a backup file will be created by the Safety Coordinator with one copy found locally on the Safety Coordinator's computer and a backup USB drive found outside the Safety Coordinator's office. This backup will be regenerated annually. Employees shall utilize the online version rather than the backup files where possible.

It is the responsibility of each Supervisor to ensure that personnel within the discipline know where SDS information is located and that SDS sheets for chemicals in the discipline are kept up to date. (see below for more information on adding SDS sheets to the online ebinder.)

Personnel should be aware of the hazards presented by chemicals used in the discipline.

RECEIVING CHEMICALS –SDS SHEETS – CHEMICAL INVENTORY

Verification - verify that the chemicals received match the chemicals listed on the packaging invoice by placing initials and date of all the chemicals received.

Online SDS - search the online SDS database/ebinder for each chemical and manufacturer in the order. For instance, if there is an SDS online for acetone manufactured by Sherwin-Williams, but the acetone you received is manufactured by Honeywell, an SDS sheet for Honeywell acetone would have to be added to the online SDS database. Employees should add the SDS sheet to the database if one does not exist. The database will automatically send an email to the SDS administrator to approve the update. Alternatively, if there is no SDS in the database, notify the Safety Coordinator, and they will add the SDS sheet to the database.

Chemical Inventory - to remain compliant with State and Federal regulations, a yearly inventory of chemicals shall be performed by each discipline. Yearly chemical inventories conducted by each discipline will be submitted to the Safety Coordinator and records retained.

CHEMICAL LABELING

All **primary** containers of chemicals must be clearly labeled with the following minimum information:

- Contents
- Date prepared (or received)
- Initials of preparer (or receiver)
- Date opened
- Appropriate hazard warnings

Existing labels on incoming containers of hazardous chemicals may not be removed or defaced. When you transfer a chemical from its original container to another container, the container you transfer it into is called a "secondary container."

All **secondary** containers of chemicals must be clearly labeled with the following:

- Contents
- Appropriate hazard information

When using chemicals, laboratory employees shall read the manufacturer's label and note the hazards indicated.

Several different systems exist for labeling hazards. In the laboratory, primary responsibility is placed upon each laboratory employee for reading manufacturer's labels and following precautionary statements on the container and in the SDS.

Beyond commercial labeling, the laboratory supplies specific labels for carcinogens and NFPA (National Fire Protection Association) rating.

CHEMICAL STORAGE

Chemicals should be purchased in quantities that will be utilized within a reasonable period. Chemicals must be segregated by hazard for safe storage. Separate storage areas have been designated for flammables and acids. Care should be taken to ensure that incompatible chemicals are not stored together. For a resource on incompatible chemicals, see Prudent Practices in the Laboratory, Handling and Disposal of Chemicals, by the National Resource Council.

Quantities of flammable solvents in excess of daily needs are kept in OSHA-approved cabinets below desk level. Acids, bases, and corrosives are never to be stored above head level. Chemicals must not be stored on open shelves. Designated storage shelves in the Chemical Storage/Preparation Rooms within the individual disciplines have restraining doors.

Specific precautions include:

- Acids- Store in low cabinets with neutralizer material in case of spills
- Peroxide-forming chemicals (ether, picric acid)- Store in airtight containers in a cool, dark, dry place.
- Carcinogens- Precautions that will be followed include labeling all containers with a "carcinogen" sticker and storing according to the hazardous nature of the chemical.

CHEMICAL WASTE DISPOSAL

An item is considered chemical waste if it contains a chemical component that meets one or more of the following criteria:

- Ignitability (flashpoint <60°C or supports combustion)
- Reactivity (e.g., water reactive, cyanides, explosives, unstable chemicals)
- Corrosivity (pH <4 or >10)
- EP toxicity (e.g., pesticides, heavy metals, poisons)
- Material is not excluded from regulations

Each laboratory employee is responsible for properly identifying the hazardous waste he/she generates and for ensuring that the chemical waste is positioned in a designated area for proper disposal.

Items that have been identified as expired or ready for disposal will be moved to the Chemical Disposal cabinet in Room 1177. This cabinet is kept locked, contact the Safety Coordinator when chemicals are ready for addition to the disposal cabinet (see below).

All chemicals ready for disposal must be labeled with the contents. Containers that contain multiple chemicals (ie: prepared reagents, waste bottles, etc.) must have a list of the chemicals contained and approximate concentration on the label (ie: 90% MeOH, 10% Water). A current SDS (or SDS packet for mixtures) for each container being placed in the cabinet should be printed from the laboratory's ebinder and provided to the laboratory safety coordinator when disposing of chemicals. Contact the Safety Coordinator with any questions about disposal.

The chemical disposal will be batched for removal but will occur at least annually.

Hazardous waste is transported by maintenance staff for disposal. All chemical waste must be approved prior to disposal. Chemical waste is approved by US Ecology. The current contact is Edward.Tracy@usecology.com.

The following should be emailed to the above contact prior to transportation of waste:

A list of all chemical containers for disposal that lists:

- The contents of each bottle for disposal
- Whether the contents are solid or liquid
- The number of containers
- The quantity of waste in each container

SDSs for all chemicals or components of waste bottles.

Chemical Waste Disposal Records are kept in the SharePoint Safety and Facilities Library.

BIOLOGICAL SAFETY

To ensure minimal exposure, laboratory employees must assess the hazards associated with their work and determine how to apply the appropriate biosafety guidelines. The following biosafety guidelines should be used when working with infectious agents or infected material.

PERSONAL HYGIENE GUIDELINES

- Wash your hands thoroughly:
  - After working with any biohazard
  - After removing personal protective equipment
  - Before eating, drinking, smoking, applying cosmetics, or other activity that involves touching your face
- Do not touch your face when handling biological material
- Never eat, drink, smoke, or apply cosmetics in the laboratory work area
- Always wear appropriate personal protective equipment when working with infectious agents or infected material
- Do not wear potentially contaminated clothing outside the laboratory work area

HANDLING PROCEDURES

- Use mechanical pipetting devices
- Minimize aerosol production
- Use secondary leak-proof containers when transporting samples containing bio hazardous materials
- Biosafety Cabinets are available when processing bio hazardous materials
- Limit access to laboratory work areas when working with infectious or biohazardous agents or material that may contain infectious or biohazardous agents
- Ensure that appropriate signage is posted on laboratory work area doors where infectious or biohazardous agents may be present

DISINFECTION AND STERILIZATION

Biological safety depends on proper cleanup and removal of potentially harmful agents. The following guidelines should be used when working with potentially harmful agents:

- Frequently disinfect floors, cabinet tops, and equipment where biohazardous materials are used
- Minimize the amount of materials and equipment present when working with infectious agents
- Properly store materials

Disinfection and sterilization are two ways to help ensure biological safety in the laboratory:

- Disinfection – reduction of the number of pathogenic organisms by the direct application of physical or chemical agents.
- Sterilization – total destruction of all living organisms.

The method of disinfection or sterilization used depends on the target organism to be removed and the characteristics of the area to be cleaned. Most general laboratory cleaning involves disinfection.

Two of the most common concerns within the laboratory are disinfection of biological hazards and contamination by seized drugs.

- For disinfection of laboratory workspaces after biological hazards are present a 10% bleach solution should be used. Premade solutions must be replaced every month.

- Cleaning of workspaces contaminated with suspected seized drugs should be cleaned with a 3% hydrogen peroxide solution.

Discipline Procedure Manuals shall outline any additional disinfection or sterilization requirements in their discipline.

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

Bloodborne Pathogen training is required annually for all laboratory employees. This training will be pre-scheduled and provided through the laboratory and/or an approved vendor at no cost to the employee. (See Safety Training) Laboratory employees should refer to Chapter 205 (Communicable Diseases) of the Department of Public Safety Operating Procedures Manual for additional information.

CONTROL MEASURES AND EMERGENCY EQUIPMENT

Safety is achieved by continual awareness of hazards and by keeping the hazards under control by using precautions such as control measures. There are three general types of controls: engineering controls, personal protective equipment and hygiene practices. Laboratory personnel should be familiar with precautions to be taken, including the use of engineering and other safeguards. All laboratory employees should be alert to detect the malfunction of engineering and other safeguards.

CRITERIA FOR USE

These criteria will be used to determine and implement control measures to reduce employee exposure to hazardous chemicals. The following control measures that guard against these routes of entry are to be used.

- All work which may generate significant amounts of vapor, aerosol, mists or dusts of hazardous materials will be done in a chemical fume hood, biological safety cabinet or specifically designed hood for that operation.
- Protection from skin and eye contact is routinely used. It includes, at a minimum whenever hazardous or potentially hazardous materials are used, the use of laboratory coats, gloves and safety glasses.
- Additional levels of protection are provided by goggles and face masks. Other types of appropriate protective clothing are to be implemented when warranted. Both the worker involved in the operation and the Supervisor evaluates the need for use of additional protective apparel and/or equipment. The Supervisor will make the protective items available, and the worker will use them. Appropriate hygiene practices will be observed. These include immediately washing of areas of skin contact, removal of contaminated clothing, decontamination of clothing and work area, as necessary, disposal of contaminated items and use of eyewash and safety showers, as indicated.
- In general, before leaving work areas for breaks, lunch or at the end of the workday, clean up the work area to minimize hazards, remove protective apparel and store properly; and wash hands thoroughly with soap and water.

ENGINEERING CONTROLS

These controls involve the use of proper building ventilation including an adequate number of appropriately designed exhaust hoods, fans and ducts in use.

Fume and laminar flow hoods are the primary control in this category. Their two primary methods of protection are: removing airborne hazards and providing a physical barrier between the worker and the operation being performed inside the hood.

Laboratory equipment which exhausts hazardous materials will be vented to an area minimizing employee exposure. Before any current equipment is moved or new equipment installed, these considerations will be addressed.

USE OF PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) includes all clothing and work accessories designed to protect employees from workplace hazards. PPE should not replace engineering, administrative, or procedural controls for safety. Rather, it should be used in conjunction with these controls. All laboratory employees are required to wear PPE appropriate for the potential hazard associated with the laboratory work they are performing. PPE will be considered appropriate only if it does not permit blood and other potentially infectious materials to pass through to or reach the employee's clothes, skin, eyes, mouth or other mucous membranes under normal conditions of use and for the duration of time which the PPE will be used. Appropriate PPE will be covered in the discipline training programs and is provided to all laboratory employees at no cost.

PPE clothing (e.g., laboratory coats and Scene Investigation coveralls) should be placed in the appropriate bin for laundering, as needed. PPE clothing is laundered by a private contractor or in the laboratory facility at no cost to laboratory employees.

GENERAL EQUIPMENT SAFETY

SHARPS

Employees can be punctured or cut by improperly disposed of needles, scalpels and broken glass. To avoid injury and possible infection, it is important to handle these and other "sharps" carefully and dispose of them in a sharps container. Sharps containers should be closable, puncture-resistant containers, with leak-proof sides and base, and must be labeled as containing sharps. Sharps containers should be closed before removal to prevent spillage or protrusion of contents during handling or transport.

Needles and/or scalpels should never be recapped, broken, or shorn. If necessary, they should be moved with the aid of forceps, pliers, or other mechanical device. For disposal, needles should be collected with the aid of a broom and dustpan and placed in a sharps container. Broken glassware should never be picked up directly with the hands. It should be swept or brushed into a dustpan for disposal in a sharps container.

FUME (EXHAUST) HOODS AND BIOSAFETY CABINETS

Where practical, procedures involving hazardous substances should be performed in a fume hood (e.g. drug screening, serial number restoration, etc.) or Biosafety Cabinet (e.g. biological hazards). Alternatively, such a procedure should be performed in a laboratory workspace with minimal traffic and an appropriate breathing filter should be worn by the laboratory employee performing the procedure. All chemical spraying should be done in a fume hood.

- Biosafety Cabinets - may be utilized for processing bio hazardous materials. They are certified by an outside company when purchased and monitored by the maintenance staff. Documentation will be stored in SharePoint.
- Fume Hoods - provide protection to the laboratory worker when used in procedures involving chemicals or chemical reactions that give off toxic, flammable, noxious, or hazardous fumes and vapors. When these

procedures are performed in a fume hood, these fumes and vapors are captured and exhausted to the external environment, where they are diluted by ambient air.

COMPRESSED GASES

Cylinders containing compressed gases should be securely strapped onto a cylinder transport cart when being transported from one location to another within the laboratory facility. The proper regulator is to be used for each compressed gas cylinder in question and may not be adapted for use on another gas cylinder. Each tank should be equipped with a safety shut-off valve. Reference Safe Cylinder Handling and storage guidelines posted near cylinder storage locations. **Note**: this does not apply to the 1-liter nonflammable dry gas standards used by the Breath Alcohol program.

ELECTRICAL

All electrical wiring and equipment should meet current National Electrical Code Standards. All electrical devices must be grounded (manufactured with a three-wire cord and a three-prong plug) or double-insulated (an attached label will be marked “double insulated”). Frayed or damaged electrical cords should never be used. Electrical cords may not be extended across doorways, aisles or other areas where they can pose a hazard. Any Laboratory employee who detects a potential electrical hazard should immediately report it to his/her **Discipline Supervisor** for appropriate action.

ALTERNATE LIGHT SOURCES

Forensic alternate light sources are hazardous when used improperly or by untrained personnel. Proper eye protection must be worn at all times. Permanent eye damage can occur from direct illumination to the eye, or reflected or refracted light hitting the eye.

- Do not use inappropriate or incorrect goggles.
- Remove all unnecessary reflective surfaces from the area or exam room and avoid looking at reflections in shiny objects such as doorknobs, watch crystals, tools, jewelry, windowpanes, mirrors, or any other surface that may reflect light.
- Exposing the skin to the beam of light directly from the unit can cause burns and other skin damage. There is no hazard with skin exposure to the beam emitting from the liquid light guide of fiber optic cables as temperatures are decreased.

FIREARMS SAFETY

- All firearms should be handled as if they are loaded.
- Firearms should be rendered safe by a trained analyst prior to processing the firearm.
- All personnel in a test firing area will wear suitable safety glasses and hearing protection. Body and face shields should be used in all situations where bullet fragments could be deflected towards the shooter or observers.
- The bore of the firearm should be checked for obstructions prior to loading. All ammunition shall be thoroughly inspected before use in test firing.
- Water tanks should be kept in a locked area.
- Fire extinguishers should be readily accessible when test-firing into a bullet recovery trap.
- The velocity limitation of the trap should be clearly posted and should not be exceeded. The trap should be routinely cleaned to minimize chance of ricochet.
- For indoor test firing, ventilate the area in a manner that removes discard residue from the shooter’s face.
- The range door shall be closed for indoor test firing.
- Verbally announce the commencement of firing and/or clear the areas when test firing is to begin.

ERGONOMICS

Ergonomics is the applied science of designing the workplace to fit the worker. It covers all aspects of the work environment, from the physical stressors that can impact the worker's health to the environmental factors that can impact a worker's health and general well-being. Ergonomics is important to the productivity and long-term health and safety of laboratory employees. If a laboratory employee has concerns about physical stressors and/or environmental factors in the workplace, these concerns should be brought to the attention of the appropriate **Discipline Supervisor** so they may be addressed.

SAFETY EQUIPMENT

FIRST AID KITS/NARCAN KITS

There are first aid kits throughout the laboratory. First aid kits are re-stocked on an as-needed basis. First aid kit contents are checked as part of the Discipline Quarterly Shower/Eyewash/AED/First Aid Checklist. If a laboratory employee observes that one or more first aid kit items need to be replenished, he/she should notify the Safety Coordinator or designee.

Plastic cases containing Narcan® nasal spray for emergency opioid overdose response are located in at least one first aid kit in each discipline with the exception of the breath alcohol laboratory. These first aid kits are identifiably marked as containing NARCAN INSIDE. Instructions for the proper use of the Narcan® opioid overdose rescues kits are contained within each kit.

AED (AUTOMATIC EXTERNAL DEFIBRILLATOR)

An AED is located in classroom A, the training classroom and also in each of the laboratory main hallways. CPR equipment (gloves, breathing mask, etc.) is stored with the AED. Each discipline is responsible to check assigned AEDs quarterly. This will be logged on the Discipline Quarterly Shower/Eyewash/AED/First Aid Checklist and stored in the SharePoint Safety and Facilities Library.

SHOWER AND EYEWASH STATIONS

Shower and eyewash stations are located in each laboratory work area. Laboratory employees should become familiar with the location of the shower and eyewash stations in their work area as well as the shower and eye wash stations in other parts of the Laboratory facility in the event that they may need to use this equipment.

Designated personnel will test shower and eyewash stations *at least* quarterly to ensure that they are working properly (i.e., that the flow of water is unobstructed and that the water exiting the station is tepid). Tepid is defined as a flushing fluid temperature conducive to promoting a minimum 15-minute irrigation period (Reference: A guide to the ANSI Z358.1-2009 standard for emergency eyewashes and shower equipment).

The Discipline Quarterly Shower/Eyewash/AED/First Aid Checklist will be utilized to document the results. If any results are unacceptable the **Safety Coordinator** will be notified in writing (i.e. email) and an appropriate course of action will be initiated. Records will be scanned to the SharePoint Safety and Facilities Library.

CHEMICAL SPILL STATIONS

A chemical spill station is located near the center hub on each floor and mobile spill carts are located in each laboratory. The spill stations and carts are re-stocked on an as-needed basis. If a Laboratory employee observes that one or more

spill cart items need to be replenished, or if a laboratory employee uses components from the spill station, he/she should notify the Safety Coordinator or designee.

FIRE SAFETY EQUIPMENT

For information on Fire Safety equipment see Fire Detection System.

EMERGENCY AND EVACUATION PLANS

MEDICAL EMERGENCY

IF THE INJURY IS LIFE THREATENING:

- Remain calm.
- Dial 911 and report the injury.
- Call for help in the work area verbally.
- When help arrives, one person stays with the injured person; another person seeks an employee trained in CPR/AED and/or First Aid.
- While Alaskans are protected by the "Good Samaritan Law" when administering First Aid to a victim, it is important to remember that the person administering the aid must not put himself/herself in danger, thereby creating an additional medical emergency.
- Have someone go to the front of the laboratory to meet emergency personnel and escort them back to the injured employee.
- As soon as practical, inform your Supervisor of the situation.

IF AN OPIOID OVERDOSE IS SUSPECTED:

- Check for heroin/opioid overdose signs which may include:
  - Failure to respond when spoken to
  - Failure to wake up when prompted
  - Slow or no breathing
  - Tiny pupils (the center part of the eye)
- Locate a Narcan® opioid overdose response kit
- Locate the red and white instruction pamphlet contained in the kit
- Follow the instructions to administer the Narcan® nasal spray
- Call 911 to get the person emergency medical attention
- Have someone go to the front of the laboratory to meet emergency personnel and escort them back to the injured employee
- As soon as practical, inform your Supervisor of the situation

FOR INJURIES THAT ARE NOT LIFE THREATENING, BUT REQUIRE MEDICAL ATTENTION:

- Report the injury to your Supervisor.
- Make arrangements for the injured employee to be transported to a medical facility. Do not permit the injured employee to drive himself/herself home or to another location for medical attention.
- Report any significant injury to your Supervisor within 24-hours of occurrence.
- First Aid supplies are located throughout the laboratory.
- Emergency eyewash stations and showers are located in each laboratory work area.

FIRE

The following procedure should be implemented in responding to a fire within the laboratory facility:

- Extinguish small fires by using the nearest portable fire extinguisher.
- If you are not certain of your ability to contain the fire, leave the area immediately. Do not attempt to extinguish the fire unless you are confident you can safely exit the area.
- When a fire occurs, the person discovering the fire may pull the nearest fire alarm to begin evacuating the building. Fire alarms are located throughout the laboratory. Pulling the alarm will notify the security company and the fire department.
- If you are not in immediate danger, call 911 to report the fire. If there is immediate danger, you must evacuate the building immediately.
- As time permits, and at no risk to personal safety, employees may secure confidential information and valuables in the event of a drill or an actual emergency.
- It is the responsibility of everyone to check the areas around them to assure complete evacuation as they leave an area.
- A laboratory employee exiting through the employee entrance/exit double doors shall grab the Emergency Clipboard as they exit the area. The Emergency Clipboard is located above the fire alarm-pull to the right of the employee exit doors.
- Proceed quickly and calmly to the nearest and safest laboratory exit and proceed to the employee parking lot. This is the designated meeting area.
- Once outside the building and at the designated meeting area, report to your Supervisor. Supervisors or Acting Supervisors are responsible for verifying that all employees are accounted for at the assembly area. The Emergency Clipboard has a checklist of employee's names that can be used to account for employees.
- Remain in the designated meeting area until advised to re-enter the building.

CHEMICAL SPILL

<u>If a chemical spill involves:</u>

- No large quantities of hazardous material
- No significant respiratory hazard
- No significant fire or explosion and no potential for a significant fire or explosion

DO THE FOLLOWING:

- Barricade the spill area
- Put on appropriate protective wear
- Contain spill against spreading
- Ventilate area
- Transfer a dry spillage to an appropriate waste container.
- Pick up liquid spillage using sorbent pillows, sorbent sheets, etc. and transfer to an appropriate waste container.
- Clean up any remaining chemical residue
- Decontaminate cleanup personnel

- Report the incident to the Safety Coordinator or Maintenance Staff immediately once the spill is contained. Include in the information provided the chemical that was spilled, an SDS for all components, any incident resulting from the spill, a description of how the spill occurred, the location of the spill, and how the response measures already taken.

If a chemical spill involves:

- Large quantity of hazardous material
- Significant respiratory hazard
- Significant fire or explosion or the potential for a significant fire or explosion

DO THE FOLLOWING:

- The person discovering the spill will pull the nearest fire alarm. Fire alarms are located throughout the laboratory. Pulling the alarm will notify the security company and the fire department.
- The person familiar with the spill will brief the Fire Department when they arrive.
- As time permits, and at no risk to personal safety, employees may secure confidential information and valuables in the event of a drill or an actual emergency.
- It is the responsibility of everyone to check the areas around them to assure complete evacuation as they leave an area.
- A laboratory employee exiting through the employee entrance/exit doors shall grab the Emergency Clipboard as they exit the area. The Emergency Clipboard is located above the fire alarm-pull to the right of the employee exit doors.
- Proceed quickly and calmly to the nearest and safest laboratory exit and proceed to the employee parking lot. This is the designated meeting area.
- Once outside the building and at the designated meeting area, report to your Supervisor. Supervisors or Acting Supervisors are responsible for verifying that all employees are accounted for at the assembly area. The Emergency Clipboard has a checklist of employee's names that can be used to account for employees.
- Remain in the designated meeting area until advised to re-enter the building.

BOMB THREAT OR THREATENING PHONE CALL

- Remain calm.
- If your phone has caller ID display, record the number of the incoming call.
- As much as possible, write down the exact words of the caller.
- Ask questions to obtain as much information as possible to try to determine the exact nature of the threat.
- If the situation presents immediate danger to people or property, call 911.
- Report the call immediately to any member of laboratory management.
- Follow directions of the Chief or your Supervisor.
- Upon notification of a bomb threat, employees shall not touch anything, including electrical switches, furniture and equipment. Unidentified items in work area and/or items suspected of containing a bomb should be reported to explosives personnel.
- If required, evacuate the building in an orderly manner.
- As time permits, and at no risk to personal safety, employees may secure confidential information and valuables in the event of a drill or an actual emergency.

- It is the responsibility of everyone to check the area around them to assure complete evacuation as they leave an area.
- The laboratory employee exiting through the employee entrance/exit doors shall grab the Emergency Clipboard as they exit. The Emergency Clipboard is located above the fire alarm-pull to the right of the employee exit doors.
- Proceed quickly and calmly to the nearest laboratory exit and proceed to the employee parking lot. This is the designated meeting area.
- Once outside the building and at the designated meeting area, report to your Supervisor. Supervisors or Acting Supervisors are responsible for verifying that all employees are accounted for at the assembly area. The Emergency Clipboard has a checklist of employee's names that can be used to account for employees.
- Remain in the designated meeting area until advised to re-enter the building.

SUSPICIOUS LOOKING PACKAGES

Incoming packages to the Laboratory that have one or more of the following characteristics should be handled with caution:

- Excessive postage
- Missing return address
- Misspelling of common words
- Oily stains, discoloration, or odor
- Protruding wires or aluminum foil
- Markings indicating a chemical or biological agent release

Most packages are received at the Service Receiving Area and at the Evidence Room Receiving Area. It is important that the Laboratory employees working in these areas take notice of incoming packages with these and other unusual characteristics.

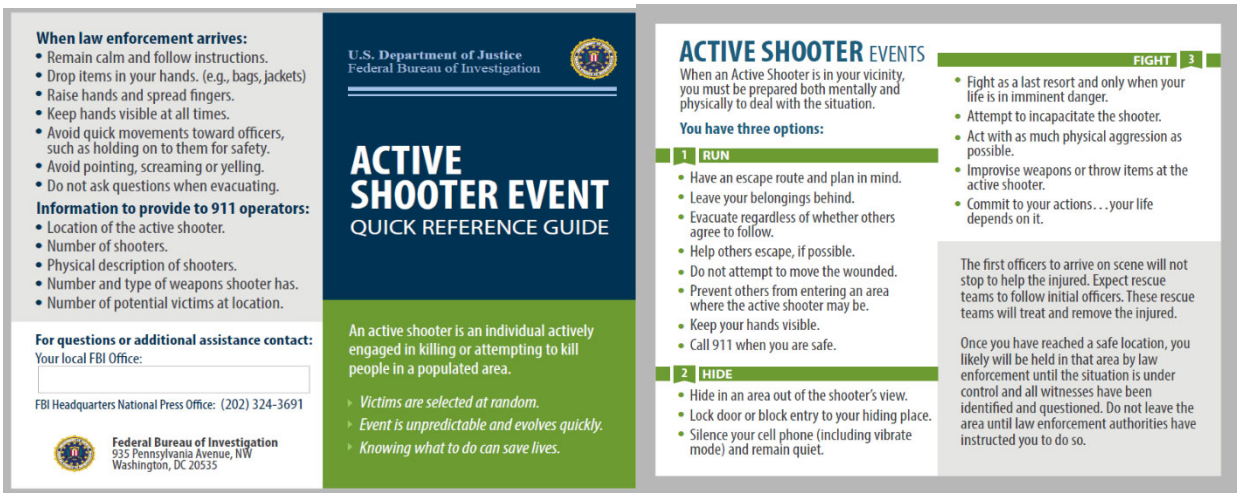
Laboratory employees should wear gloves and other appropriate personal protective equipment when handling suspicious-looking packages. If there is a concern that a package may pose a significant threat to health and safety, the Laboratory employee should NOT attempt to open it.

The Discipline Supervisor and Chief should be notified about the package and emergency personnel (e.g., Anchorage Police Department or Anchorage Fire Department) should be contacted.

The package should be isolated from other Laboratory employees to minimize exposure to any potential health and/or safety hazards.

ACTIVE SHOOTER EVENT

The FBI's Quick Reference Guide is inserted below with recommended actions if you find yourself in an Active Shooter Event:



When law enforcement arrives:
- Remain calm and follow instructions.
- Drop items in your hands. (e.g., bags, jackets)
- Raise hands and spread fingers.
- Keep hands visible at all times.
- Avoid quick movements toward officers, such as holding on to them for safety.
- Avoid pointing, screaming or yelling.
- Do not ask questions when evacuating.

Information to provide to 911 operators:
- Location of the active shooter.
- Number of shooters.
- Physical description of shooters.
- Number and type of weapons shooter has.
- Number of potential victims at location.

For questions or additional assistance contact:
Your local FBI Office:

FBI Headquarters National Press Office: (202) 324-3691

Federal Bureau of Investigation
935 Pennsylvania Avenue, NW
Washington, DC 20535

U.S. Department of Justice
Federal Bureau of Investigation

ACTIVE SHOOTER EVENT
QUICK REFERENCE GUIDE

An active shooter is an individual actively engaged in killing or attempting to kill people in a populated area.
- *Victims are selected at random.*
- *Event is unpredictable and evolves quickly.*
- *Knowing what to do can save lives.*

ACTIVE SHOOTER EVENTS

When an Active Shooter is in your vicinity, you must be prepared both mentally and physically to deal with the situation.

You have three options:

1 RUN
- Have an escape route and plan in mind.
- Leave your belongings behind.
- Evacuate regardless of whether others agree to follow.
- Help others escape, if possible.
- Do not attempt to move the wounded.
- Prevent others from entering an area where the active shooter may be.
- Keep your hands visible.
- Call 911 when you are safe.

2 HIDE
- Hide in an area out of the shooter's view.
- Lock door or block entry to your hiding place.
- Silence your cell phone (including vibrate mode) and remain quiet.

FIGHT 3
- Fight as a last resort and only when your life is in imminent danger.
- Attempt to incapacitate the shooter.
- Act with as much physical aggression as possible.
- Improvise weapons or throw items at the active shooter.
- Commit to your actions…your life depends on it.

The first officers to arrive on scene will not stop to help the injured. Expect rescue teams to follow initial officers. These rescue teams will treat and remove the injured.

Once you have reached a safe location, you likely will be held in that area by law enforcement until the situation is under control and all witnesses have been identified and questioned. Do not leave the area until law enforcement authorities have instructed you to do so.

EARTHQUAKE

During the earthquake:

- Keep calm, do not run or panic.
- Remain in the general area. Do not try to run outdoors.
- Take cover under tables, desks, etc., in doorways or against inside walls.
- Stay away from glass windows and doors. If you cannot get away from glass windows or doors, turn your back towards them.
- Stay clear of shelves and high piled material.
- If you are outdoors, move away from buildings, poles and downed wires.

Following the earthquake:

- Check your immediate area to see if anyone requires medical assistance. Report injuries to any member of laboratory management.
- Follow all instructions issued by supervisory or emergency service personnel.
- Evacuate the building if told to do so.
- As time permits, and at no risk to personal safety, employees may secure confidential information and valuables in the event of a drill or an actual emergency.
- It is the responsibility of everyone to check the areas around them to assure complete evacuation as they leave an area.
- A laboratory employee exiting through the employee entrance/exit double doors shall grab the Emergency Clipboard as they exit the area. The Emergency Clipboard is located above the fire alarm-pull to the right of the employee exit doors.
- Proceed quickly and calmly to the nearest and safest laboratory exit and proceed to the employee parking lot. This is the designated meeting area.
- Once outside the building and at the designated meeting area, report to your Supervisor. Supervisors or Acting Supervisors are responsible for verifying that all employees are accounted for at the assembly area. The Emergency Clipboard has a checklist of employee's names that can be used to account for employees.
- Remain in the designated meeting area until advised to re-enter the building.

VOLCANIC ERUPTION

Volcanic ash abrades and jams machinery. Therefore, the following precautions will be taken at the Laboratory in the event of a volcanic eruption:

- The laboratory Maintenance Specialist or designee will shut down the air handling system located in Penthouse A and Penthouse B - C.
- Dampen ash in the Laboratory parking lot to reduce suspension.
- Keep doors closed and place damp towels at door thresholds and other draft sources; seal draft windows with tape.
- Protect dust-sensitive electronics (e.g., computers, specialized instruments, etc.) with plastic covering.
- Dust surfaces using a vacuum cleaner rather than a dusting cloth to reduce chance of abrading surfaces.

OTHER SITUATIONS DEEMED EMERGENCY

In the case of other situations deemed emergencies (ie: pandemic):

- Key Management will meet to determine the best steps to address the emergency.
- The laboratory should follow, at minimum, state guidelines as they become available.
- The laboratory may use meetings and email to communicate with staff the steps and plans as they develop for this type of emergency as regular manual updates may not be sufficient of timely to ensure the safety of laboratory employees.

REPORTING PROCEDURES

INJURY / EXPOSURE REPORTING

A job-related injury or illness must be reported to the Supervisor as soon as possible. The Department of Administration Division of Risk Management has provided a general Claim Reporting Procedures booklet to assist in completing the correct forms for documentation of job-related injuries or illnesses. The Administrative Assistant will assist the Supervisor in providing the employees with the appropriate documentation forms.

Any injury caused by a “sharps” must be reported by memo to the Safety Coordinator, through the Supervisor, as soon as possible. The memo should include the following information:

- Date and time the incident occurred.
- Location where the incident occurred.
- Type of material (blood, etc.) that potentially infectious materials were involved in the incident.
- Source of the material
- Under what circumstances and the type of work being performed when the incident occurred.
- How the exposure was caused.
- Personal protective equipment being used at the time of the incident.
- Actions taken as a result of the incident.
    - Employee Decontamination
    - Cleanup

- Notifications made

When applicable, the memo will be used in conjunction with the appropriate Department of Administration Division of Risk Management documentation of job-related injuries, and, if applicable, the *DPS Bloodborne Pathogens Post-Exposure Evaluation and Checklist* form. Additional information can be found in the *Department of Public Safety (DPS) Bloodborne Pathogens Exposure Control Plan* found in Chapter 205 (Communicable Diseases) of the DPS Operating Procedures Manual.

CHEMICAL SPILLS

All chemical spills must be reported by memo to the Safety Coordinator, through the Supervisor. The memo should include the composition of the spill, extent of the spill, personnel involved, description of exposure, and clean up procedure used. Any injury, illness or reaction incurred should be reported on the Report of Occupational Injury or Illness form found online at the Department of Administration, Division of Risk Management.

SAFETY CONCERNS

Safety concerns should be documented and brought to the attention of the Discipline Supervisor and Safety Coordinator for resolution. If the safety concern is discipline specific, the Safety Coordinator will work with the Supervisor of the involved Discipline to resolve the concern. If the safety concern is Laboratory-wide, the Safety Coordinator will work with the Chief and all Discipline Supervisors to resolve the concern.

In both instances, Laboratory employees will be notified of the safety concern and the action steps needed in order to resolve the concern.

Safety concerns will be reported by memo or email to the employee's Supervisor or the Safety Coordinator.

EMPLOYEE HEALTH AND SAFETY MONITORING

ANNUAL PHYSICAL EXAM

Laboratory employees who in the performance of their regular duties come in contact with pathogenic, carcinogenic, and toxic substances or with infectious blood-borne (or other bodily fluid-borne) diseases may be entitled to partial reimbursement for an annual physical exam performed for the purpose of employee health monitoring (article 29.02 in the GGU contract and article 28.5 in the Supervisory Unit contract).

IMMUNIZATION GUIDELINES

Laboratory employees who may be exposed to human blood or other human bodily fluids as a result of their job duties are encouraged to receive Hepatitis A (HAV) and Hepatitis B (HBV) vaccinations for their protection from potential infection with these blood-borne pathogens. Vaccination against these pathogens and titer checks are offered by the Laboratory at no cost to the Laboratory employee.

HEARING TESTS – BASELINE AND FOLLOW-UP

Laboratory employees who may be exposed to loud noises as a result of their job duties (e.g., employees working with firearms) are eligible to receive a baseline hearing test at the initiation of their exposure on the job and a follow-up hearing

test every year while performing their job for the purposes of monitoring their hearing. This benefit is offered by the Laboratory at no cost to the Laboratory employee whose job duties may impact their hearing.

BLOOD LEAD LEVEL TESTS

Laboratory employees who may be exposed to lead (e.g., employees working with firearms) are eligible to receive a baseline blood lead level test at the initiation of their exposure on the job and a follow-up blood lead level test every year while performing their job for the purposes of monitoring their exposure to lead. This benefit is offered by the Laboratory at no cost to the Laboratory employee whose job duties may result in lead exposure.

AUDITING THE HEALTH AND SAFETY PROGRAM

ANNUAL HEALTH AND SAFETY AUDITS

The Safety Coordinator will organize and conduct an annual, laboratory wide health and safety program audit to include all disciplines of the laboratory. Each Discipline Supervisor or Safety Committee member should perform an annual health and safety program audit for his/her discipline and record audit findings on the Discipline Annual Health and Safety Audit Checklist. In addition, each employee should complete the Employee Health and Safety Audit Checklist.

The Discipline Supervisor or Safety Committee member will share the results of the discipline audit with his/her discipline and the Safety Coordinator. The Discipline Supervisor will document correction of the deficiencies on the Health and Safety Audit Checklist where indicated.

The Discipline Supervisor and Safety Coordinator will prepare an action plan to correct any health and safety deficiencies found during the audit process.

The Safety Coordinator will share the results of the annual audit with the Chief. Documentation will be stored in the SharePoint Safety and Facilities Document Library.

APPENDIX C: LAB LEVEL CASE ACTIVITIES

Case activities are used within the LIMS to document communications, quality assurance related information, case management information, court activities, and other information related to the case. Analysts are expected to review all case activities with the intended audience of All or their discipline prior to beginning work on the case. The relevant case activities are pulled into the Request Report for ease of review (see Analyst Review of Requests). Case activities are part of Level 2 discovery. Laboratory staff preparing Level 2 discovery should be verifying that all relevant Quality Assurance Documents referenced in case activities are included in the discovery packet (see Electronic Case Files and Discovery Pack Generation).

The table below lists lab level activities and their intended use:

Activity Name	**Intended Use**
Comm-Case Information Update-All	Recording details of a case information update or addition. See Case Information Updates for more details. Audience expected to read before performing work in case: All.
Comm-Case Management-All	Recording communication related to the case review process before a request is made available for assignment to an analyst (e.g., determining order of testing or which items are to be tested.) Audience expected to read before performing work in case: All.
Comm-Case Management-Bio	Recording communication related to the case review process before a request is made available for assignment to an analyst (e.g., determining order of testing or which items are to be tested.) Audience expected to read before performing work in case: Biology Staff.
Comm-Case Management-Chem	Recording communication related to the case review process before a request is made available for assignment to an analyst (e.g., determining order of testing or which items are to be tested.) Audience expected to read before performing work in case: Chemistry Staff.
Comm-Case Management-Phys	Recording communication related to the case review process before a request is made available for assignment to an analyst (e.g., determining order of testing or which items are to be tested.) Audience expected to read before performing work in case: Physical Staff.
Comm-Evidence Section Comments-All	Communication from the laboratory evidence section related to submissions in the case. Audience expected to read before performing work in case: All.
Comm-Other-All	Recording other communications. Audience expected to read before performing work in case: All.
Comm-Other-Bio	Recording other communications. Audience expected to read before performing work in case: Biology Staff.
Comm-Other-Chem	Recording other communications. Audience expected to read before performing work in case: Chemistry Staff.
Comm-Other-Phys	Recording other communications. Audience expected to read before performing work in case: Physical Staff.
Court-Affidavit	Recording when an affidavit is prepared related to the case.
Court-Discovery	Recording when a court discovery request is fulfilled, to whom it was provided, and the time (in Time Spent field) it took to prepare.

Court-NOE Review	Recording when a Notice of Expert document is reviewed, who requested the review, and the time (in Time Spent field) it took to review (see Notice of Expert (NOE))
Court-Pre-trial	Recording when a pre-trial discussion/conference occurred, how much time it took (in Time Spent field), and a summary of what was discussed.
Court-Testimony	Recording activities related to testimony requests.
DNA-Contamination Assessment	Used to indicate that a DNA contamination assessment form is associated with the case. This occurs when the contamination is of sufficient quantity for comparison, but the source of DNA cannot be determined. If the source can be determined, the associated quality review is documented using the QA – Quality Assurance Review (QAR) activity.
DNA-Offender Qual Check	Used to document verification that the collection of a DNA database offender sample was related to a qualifying offense.
LIMS-Chain of Custody Edit	Recording that a Chain of Custody Edit Request Form is associated with the case. The request form's unique identifier must be included in the activity field notes.
LIMS-Result Release Restriction	Used to document changes to a case's Result Release Restriction settings.
LIMS-DNA Set Unlock	Recording that a LIMS-DNA Set Unlock Request Form is associated with the case. This occurs when a LIMS-DNA set requires amendment following tech review approval. The request form's unique identifier must be included in the activity field notes.
Other	Used to record activities that do not fall within the other available activity types. If used often, staff should inform the LIMS Administrator so that a more specific activity type can be created.
QA-Approved Deviation	Used to record when the appropriate authority approves a deviation to policy and/or procedure. (see Deviation Request)
QA-Monitoring Activity	Recording a case specific activity associated with monitoring the validity of results. If a complete retest occurs, the QA Retest complexity will be added to the associated request to record the activity instead of using this lab level activity.
QA-Other	Used to record quality assurance activities that do not fall within the other available QA activity types.
QA-Quality Assurance Review (QAR)	Recording that a quality assurance review form is associated with the case. The quality assurance review's unique identifier must be included in the activity notes field. (see Quality Assurance Review Policy)
QA-Release of Preliminary Results	Recording that preliminary results were released in the case. Details on what was released, when it was released, and to whom will be recorded in the activity notes field. (see Verbal Case Information Dissemination)
SD – Evidence Discrepancy	Used to document seized drugs discrepancies.

APPENDIX D: REFERENCES

ANSI National Accreditation Board (ANAB), *Forensic Science Testing and Calibration Laboratories Accreditation Requirements*. Document Number AR 3125 (2023).

International Organization for Standardization /International Electrotechnical Commission (ISO/IEC), 17025 *General requirements for the competence of testing and calibration laboratories,* Third Edition 2017-11. Reference Number ISO/IEC 17025:2017 (E).

Joint Committee for Guides in Metrology, *International vocabulary of metrology – Basic and general concepts and associated terms (VIM),* 3rd edition 2008 version with minor corrections, (JCGM 200:2012).

National DNA Index System (NDIS) Operational Procedures Manual, FBI Laboratory. Current Version

U.S. Department of Justice (DOJ), Federal Bureau of Investigation (FBI), *Quality Assurance Standards for Forensic DNA Testing Laboratories,* 2020 version. (FBI QAS Testing).

U.S. Department of Justice (DOJ), Federal Bureau of Investigation (FBI), *Quality Assurance Standards for DNA Databasing Laboratories,* 2020 version. (FBI QAS Database).

Minimum Required Operating Standards for National Integrated Ballistic Information Network (NIBIN) Sites, Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) 2022 version

APPENDIX E: REVISION HISTORY

Location	Revision made
Proficiency Testing	Added: "For purposes of tracking compliance with proficiency testing requirements the laboratory utilizes the due date to the proficiency test provider. QAS 13.3"