## A. PURPOSE:

Proper handling of all evidence is essential to maintain the forensic integrity of case materials. All evidence must be handled in a manner appropriate both to document custody and storage conditions and to ensure that the integrity of the evidence is preserved.

## B. RESPONSIBILITY:

1. **Managers**: Responsible to provide direction to subordinate staff under their purview as indicated by the organization chart
2. **Supervisors**: Responsible to provide supervision to subordinate staff under their purview as indicated by the organization chart
3. **FSE2**: responsible as a working lead to subordinate staff as indicated on the organizational chart.
4. **FSE1 and Lab Assistants**: Responsible to adhere to this procedure as it pertains to their Unit.
5. **ECO**: Responsible to adhere to this procedure as it pertains to their Unit.
6. **Support Personnel** (however titled): Responsible to adhere to this procedure as it pertains to their Unit.

## C. DEFINITIONS:

1. PIN: Personal Identification Number
2. LIMS-plus or LIMS– current LIMS system
3. COC: Chain of Custody
4. RFA: Request for Analysis
5. Proper Seal: Refers to a condition of packaging which ensures that evidence is prevented from cross contamination, there is no sample loss, and any attempt at deleterious change of the evidence would be noticeable. A proper seal may be achieved by a heat seal of a plastic bag with initials or using evidence tape, which is appropriately documented.
6. Shared Storage Location: an area used to securely store evidence that may be accessed by multiple people. Evidence in a shared location will be sealed. Each shared storage location will have a LIMS designation and that designation will be on the chain of custody. Note the exception for "In Progress" locations.
7. "In Progress" location: In progress locations are set up for the FB Unit and DNA Unit. Items in an "in progress" location indicate that the items are actively being worked on by the assigned analyst. "In Progress" locations include, but are not limited to, temporary refrigerators/freezers and drying spaces within secure laboratory spaces.
8. Personal Storage Location: an area used to securely store evidence that is assigned to a single analyst and that analyst is the only one with access to that location (noting that duplicate keys are maintained by administration for emergency purposes). The chain of custody for evidence in a

personal storage location will indicate that the evidence is in the possession of that individual. The use of a PIN is required for all Personal Storage Location transfers.

9. iPrelog: A web-based system that allows evidence to be logged in by the submitting agency off-site.

**D. SAFETY**:

All evidence must be handled using appropriate safety guidelines. Evidence may represent explosive, biological, puncture, laceration or other hazards. Safe evidence handling guidelines are provided in GL-2 and within individual Unit specific SOPs.

**E. PROCEDURE**:

1. All DSS personnel must handle evidence in a manner appropriate to preserve the security and integrity of the evidence. Documentation of custody for the case from the time it first enters the building until it leaves the building is an integral step of proper evidence handling and will occur. Bar code labels will be placed on, at a minimum, the outermost evidence bags when evidence is transferred between units or sections. This allows the tracking of all evidence in LIMS.
    a. "In Progress" locations are designated for the FB Unit and the DNA Unit. This may be used when a process is to occur by one analyst and for a limited duration. "In Progress" locations can be used during testing in which the evidence is maintained within temporary refrigerators/freezers and/or drying spaces. These locations are within secured limited access laboratory areas.
    b. Upon completion of the analysis the evidence is stored appropriately and the chain of custody updated for the item(s) as appropriate.
    c. "In Progress" storage locations are meant to be used for limited processes where there are defined, secure areas that actions occur.
2. The following is general guidance for proper evidence handling throughout the DSS. All steps of evidence handling including transportation, receipt, storage, and return must be performed in a manner to protect the integrity of the evidence. Unit specific requirements are noted in appropriate SOPs. For guidance on aseptic techniques for evidence handling see Appendix A.
    a. Evidence containers received into the DSS will have a proper seal.
        i. Any ECO receiving evidence that is not properly sealed (with major sealing issues) will ask the submitting agency representative to seal the evidence container and initial the seal. Otherwise the ECO can properly seal the evidence after it is accepted. With all submissions, (if necessary) sealing the evidence further after its acceptance will be performed in a timely manner.
        ii. The ECO must document in the case synopsis in LIMS that the evidence was further sealed at the DSS.

iii. It is understood that some items may not lend themselves to traditional forensic seals. In these cases, the ECO should work with the submitting agency and/or the Unit Lead/Supervisor to devise an acceptable method of securing the evidence.

Example: Bales of plant material submitted for controlled substance analysis are often seized wrapped in layers of plastic, and may be too large/cumbersome to be secured in a bag. In this type of case the ECO could require the submitting agency to place a piece of evidence tape around the bundle.

b. When a case is transferred to a unit and it is to be analyzed:

i. The RFA should be reviewed to ensure the appropriate testing was ordered in LIMS.

ii. The RFA should be reviewed to verify the content of the evidence bag(s) related to the Unit. Discrepancies will be documented on the appropriate unit form and/or in LIMS.

(a) Minor variations between the RFA and items submitted do not warrant customer notification. These will be noted in the case notes (either in LIMS or on the appropriate Unit form).

(b) Analysts are to refer to their Unit Lead or Manager if questioning appropriateness of the description and the need to clarify the discrepancy with the submitting agency.

(c) If the discrepancy is such that it causes doubt as to the suitability of the item(s) for the testing requested, work will be suspended until the discrepancy is clarified by the submitting agency.

iii. In Units other than FB or DNA, when a case (or portions of a case) is assigned, the RFA will be reviewed to ensure that the items of evidence do not require DNA testing prior to the testing in that Unit.

iv. The FB Unit will verify that there is not a latent print request which should be addressed prior to the work in the unit.

v. For shared evidence if there is a question as to the appropriate analysis path the Unit Supervisor should work with Case Management to determine this prior to the start of case analysis.

vi. The local case number should be verified between the evidence and the submitted paperwork. In general this review will be documented on a unit case form.

vii. Issues with missing requests or improper seals will be brought to the attention of the Section Supervisor and the FSE1 of Evidence receiving (ER).

c. When returning evidence to the Evidence Receiving Unit (ERU), for return to the submitting agency, the evidence will be properly sealed.

d. When evidence is transferred between Units evidence will be under proper seal. Convenience bags such as heat sealed plastic bags or paper bags may be appropriate to facilitate this.

Paper bags are to be used when there is wet biological evidence. Plastic could cause deleterious effects to the DNA evidence.

e. Evidence transfers will be documented in LIMS at the time of transfer using LIMS. All transfers involving DSS employees will be secure and documented using individual PIN codes.

If there is a situation where LIMS is not available (power outage), a paper chain of custody must be maintained and placed in the case file. The Unit DD (or their designee) will work with the LIMS administrator to appropriately document what occurred. Minimally a note of what occurred will be placed in the case synopsis when the system is available.

For newly received cases the ERU will initiate the paper chain of custody on the appropriate form.

For cases in progress analysts can use an appropriate Unit form, such as a case note form or similar, to annotate transfers for the chain of custody.

When paper chain of custodies are maintained the information to document is the item identifier, from (location or person name), to (person or location name) and date. When a person is part of the transfer their name should be written out and they should initial next to their name.

If there is a situation where evidence is required and it is in the custody of an employee that is not available to perform the transfer, for whatever reason, see the AD or DD of the Unit (or their designee). The AD or DD of the Unit or their designee will work with the LIMS Administrator to transfer the evidence as needed and appropriately document what occurred and why.

f. Each employee is responsible to ensure the LIMS PIN remains confidential to maintain the integrity of the COC.

g. When opening evidence the original seal will be left intact whenever possible. Note: Exceptions are made for case containers such as paint cans, boxes, gun boxes and jars where cutting the submitting agency seal is unavoidable.

i. If the seal must be cut off the package, the original seal should be maintained with the case in a manner that will not affect the integrity of the evidence.

ii. When the nature of the case is such that the original packaging is no longer acceptable to reseal, the analyst shall use laboratory packaging material. All the evidence will be sealed into the laboratory provided evidence container. The original packaging should be retained with the case in a manner that will not affect the integrity of the evidence. The analyst must ensure that this container is labeled with a DSS bar code label for the case/submission.

iii. If cutting an original seal the analyst should note this in the case notes (this is not needed for case types noted as exceptions above).

h. Evidence will not be left out of approved storage locations or in unsecure locations.

i. An examiner may leave evidence that is actively being examined on the examination bench during the work day in an appropriate manner that prevents contamination, compromise or loss of that evidence. This should only be done when essential due to the nature of the case materials. Exceptions to this are evidence in the Firearms and Controlled Substance Units, or evidence submitted in other units that has a considerable monetary value.

ii. Evidence will not be left out if visitors, such as for the purpose of maintenance, are to be in the laboratory space.

iii. Evidence under examination, at the end of the work day, shall be placed in an approved storage location. Evidence still being analyzed shall be protected from deleterious actions. If the evidence is transferred to a freezer or refrigerator, it is not to be in the analyst's personal possession; it is to be transferred to that refrigerator or freezer in LIMS at the time of transfer. An exception to this is for Units that use "In Progress" designations.

iv. Evidence may be left out overnight in a locked laboratory, at the discretion of the Unit Lead/Supervisor, if it is essential to the case examination (such as the need to dry the evidence). This is also applicable for the Computer Crimes Unit which must image drives over night or over several nights, or Multimedia for DVR downloads. For cases containing controlled substances: when the evidence is not actively being analyzed the evidence must be locked in the appropriate storage location and be under proper seal. Cases containing controlled substances should not be left unattended. Controlled Substance cases require special handling.

i. When handling case materials, the materials must be handled in a manner so that cross transfer, sample loss, or deleterious changes to the evidence will not occur. Analysts will take appropriate care with every step of the case processing to minimize the possibility of this from happening.

i. Laboratory benches, where cases are handled, must be maintained in a manner so as not to lead to contamination of case materials.

(a) When evidence is being examined, benches will be covered with an appropriate covering when possible (i.e. brown paper, absorbent mat or other similar product). This covering must be changed between items of evidence or as appropriate.

Note: For units where case batching is applied, bench coating in areas were case materials are processed will be changed frequently, and may not be in between each item of evidence.

(b) Common use items stored on benches should be stored in a manner to avoid potential transference from case materials. This includes, but is not limited to, test tubes, reagent bottles, disposable gloves and rolls of brown paper.

ii. To avoid any potential for mixing or transfer of case materials, analysts shall only have one case open at a time and only one item of evidence from the case open at one time.

Note: there are units where, based on workflow or case requirements, multiple cases may be open at one time. Further information may be found within unit specific SOPs.

Example 1: the Firearms Unit commonly compares casings and projectiles from one case to other cases. In this situation it is acceptable to have multiple cases open as long as the components of the cases are clearly marked with the appropriate identifiers.

Example 2: the Computer Crimes Unit commonly has one case being imaged while one is being actively worked on. This is acceptable as long as the components of the case are clearly marked with the appropriate identifiers.

iii. If there are unexpected changes to items of evidence, the customer should be notified. Generally this can be via a notation in the case report. The Unit AD or DD must be notified in these instances. The QM should be notified to determine if a QAR is appropriate.

Changes that are part of the normal processing of an item of evidence such as taking a cutting from an item of clothing or taking a portion of a tablet for analysis are not considered unexpected changes.

Unexpected changes could include breaking a blood tube during analysis, breaking a part on a firearm during analysis, or actions causing the item to be untestable such as spilling the contents.

iv. For multi-scene crimes, where DNA testing is requested, submissions from one scene should be processed in a location/laboratory different from the second scene. This applies to all analysis prior to sampling for DNA. This includes using supplies unique to each area (i.e., do not transfer reagents, gloves, lab coats, etc. from one laboratory area to the next). Once DNA samples are obtained and further non-DNA related analysis is required, the need to process in separate laboratories is no longer necessary.

v. In Units where benches are shared, partitions should be in place to prevent cross contamination between case work. How this will be achieved will be dependent on the type of work performed and the potential for cross contamination based on case type.

vi. Implements used in case analysis must be cleaned or disposed of between uses on items of evidence.

When practical, racks, rulers and other reusable items should be soaked in 10% bleach for no less than 10 minutes after use with case materials.

Unit SOPs should be referred to for specific cleaning requirements.

vii. Laboratory coats, gloves, masks, hair nets and disposable sleeves are all available to be used based on the needs of individual cases. Unit specific procedures will outline expected use of these devices.

Individuals in areas handling items destined for DNA examination should wear disposable sleeves over their laboratory coat or wear cuffed laboratory coats.

j. When the examiner has completed testing of an item of physical evidence/case, that evidence shall be properly sealed. Note: while items may be stapled to ensure a good seal, staples alone do not constitute a proper, tamper-evident seal.

i. Examples of proper sealing procedures include:

(a) Envelopes: The flap shall be sealed with evidence tape in such a way that removal would cause damage to the paper envelope.

(b) Paper bags and paper wrapping: The bag should be folded over and completely sealed by evidence tape that will damage the paper when removed.

(c) Plastic "zip-lock" bags: Evidence tape and most other packing tapes are not preferable for sealing zip-lock type plastic bags/ baggies. (The tape can be pulled off some bags without indication of tampering with the seal). Zip-lock type plastic bags should be heat sealed (initials across the seal) or placed in a paper envelope or paper bag, which can then be sealed with tape. Zip-lock bags should not be used for any wet biological evidence.

(d) Plastic commercially-available evidence bags may be sealed with evidence tape or other tamper-evident method provided by the manufacturer. Plastic bags should not be used for any wet biological evidence.

(e) Boxes: All boxes shall have a covering (lid, paper, etc.). Handle holes or other larger holes in the box shall be completely covered over so there can be no access to the interior of the box.

(i) Boxes shall be sealed with evidence tape in such a way that the cover cannot be removed without altering the seal. Due to the nature of this type of package, it can be sealed with packing tape and then evidence placed over this. Seals must be initialed.

(ii) Bottoms of boxes, which are closed with packing tape, must also be secured with tamper evident tape.

(f) Other: It is conceivable that evidence can be received that is of any form. If an analyst is unsure of the best method to seal an item they should consult their Unit Lead/Supervisor.

Large pieces of evidence that do not lend themselves to being sealed: areas of interest on the item should be protected from change. If unsure of the best method to do so consult the Unit Lead/Supervisor.

k. Items generated by the examiner from a submission (sub-items), including latent lifts, cuttings, trace, etc., shall be placed in envelopes or other appropriate packages minimally labeled with the case number, item/sub-item number and initials of the examiner. If these items are not maintained with the original case materials they must have a distinct chain of custody, to preserve the integrity of the evidence. Proper labeling includes the DSS case number, item designation, and analyst's initials, as appropriate. When possible the appropriate bar code label should be attached. Refer to GL-4 LIMS for further details on itemization in LIMS.

   i. Sub-items transferred between units require that the chain of custody be maintained as they move between the units.

   ii. Aliquots used in the Toxicology Unit or Controlled Substance Unit do not require that the chain of custody be maintained if the analyst that takes the aliquot is the testing analyst. In cases where an aliquot is taken and the item is to be transferred to another analyst for testing, the aliquot must be sub-itemized and tracked in the same manner as the parent item thru LIMS.

      An aliquot is defined as a portion taken from the whole that is to be consumed.

      Example: In the Toxicology Unit, any amount of urine taken from the submitted evidence. In the Controlled Substances Unit, any amount of powder taken from the parent evidence submission.

l. Outsourced Evidence

   i. The chain of custody for outsourced items will be maintained as appropriate. When shipping items of evidence the chain of custody in LIMS will be from the person preparing the shipment to 'Mail Transport'. When items of evidence are returned from the vendor the chain of custody will be from 'Mail Transport' to the person accepting (or signing for) the shipment. Other LIMS locations related to outsourcing may be made specific to the needs of a Unit. These will be used in the chain of custody. In these cases the Unit SOPS will specify the details of the process.

      (a) All package deliveries containing evidence should be delivered to the ERU. Delivery companies (FedEx and UPS) will be informed of this.

      (b) In the event evidence is accepted outside of the ERU the person accepting the package will deliver the package to the ERU. The chain of custody will include the person who signed for the delivery.

         (i) In the event evidence is received when the ERU is closed the evidence must be secured (personal lock-up or laboratory storage location) by the person receiving the delivery and delivered to the ERU the next business day.

      (c) Vendors used for outsourcing may include Bode, NMS Labs, Willow Grove, the FBI, DLI labs and the National NIBIN Correlation and Training Center. Other vendors

may be used if approved by the Section Assistant Director or Deputy Director and the Director.

m. Marking Case Items:

Analyzed case materials must be marked by the examiner in a way as to identify the item. When possible this should consist of the DSS case number, item number (or sub-item number) and analyst's handwritten initials. Refer to GL-4 "LIMS" for guidance on itemization. Whenever possible, the actual item analyzed will be labeled. However, for items which can't be labeled directly, such as a powdery substance, the most proximal package can be labeled for identification.

Possible methods of marking the evidence include:

(i) Using LIMS generated bar code labels

(ii) Using printed or hand written labels

(iii)Writing the information on the item itself, using a permanent marker.

n. Active cases are defined as cases assigned or pending assignment for analysis. Case examinations cannot be "open-ended". There must be a defined end to the analysis; in general this will be no longer than 6 months from the date of assignment to an analyst. Supplemental requests may follow for re-examinations. There may be exceptions to this, such as the need to have a standard produced for a specific case; this is acceptable as long as the reason is annotated in the case file. Specific time lines for active analysis are designated in Unit SOPs as required.

i. Case examination is not considered open ended if the case is properly sealed, and securely stored, but may require work in the future; such as cold cases. The case may be closed and evidence sealed, but retained at the DSS.

ii. Upon completion of a case, all evidence and copies of reports will be turned over to the submitting agency, retained, or as otherwise prescribed by law (exception noted above).

o. Digital files, photographs, or photographic negatives of images from evidence, such as latent prints and impressions, are treated as evidence, when the evidence itself is not recoverable. As such they are subject to all requirements, (storage, COC etc.) of regular evidence handling.

3. Evidence Retention:

a. In general, the DSS does not retain all evidence for a case. Portions of evidence such as swatches of blood, swabbing of biological stains, and trace materials may be retained based on the type of case. An exception to this is sexual assault cases submitted to the DSS. Evidence related to sexual assault cases will be handled according to Public Act No. 15-207. Please refer to ER SOP-09 for guidance on the retention of sexual assault evidence.

b. When evidence or portions of evidence are maintained State Statute 54-102jj "Preservation of Biological Evidence" will be followed. Per this statute these items will be maintained for the term of the person's incarceration.

c. When a portion of an item is retained (sub-item):

i. The chain of custody for that item will be maintained in LIMS.

ii. When portions of evidence are retained this will be documented in the case notes/record.

iii. Notification of evidence disposition (items/ sub-items) to the customer is through the case report. This includes portions retained at the DSS and those returned to the submitting agency.

iv. The evidence or sub-item will be maintained in a manner to preserve its integrity. Unit specific SOPs should address general evidence storage and long term evidence storage.

d. Units that have specific retention issues will address those issues in Unit specific SOPs.

4. Court Order to Destroy:

a. JD-CR is received by the DSS via email, fax or hand delivered.

b. All JD-CR forms will either be delivered to the Evidence Receiving or Case Management Units or to the section to which the destruction applies (e.g., Toxicology Unit).

c. If a hardcopy of a JD-CR form is received, place a barcode with the DSS number on all pages of the form and scan both sides of the form into LIMS. The images need to be legible – if not, then rescan using better settings. Ensure the electronic file is placed within the images folder in LIMS. Clearly name the image so that it is identifiable as a JD-CR (or destruct order).

d. Notify the appropriate Unit Managers (or designees) from each section of the DSS that would have evidence and/or retained items from the case.

e. If the evidence is in the possession of, and will not be destroyed by, the DSS, then the retained samples, including all sub-items, will be returned to the submitting agency.

i. Note that in DNA the work product (i.e. DNA extracts) do not need to be returned.

ii. The DSS 'Evidence Return Receipt' will act as notification to the customer that evidence once stored at the DSS is now being returned to the submitting agency; amended reports are not required.

f. When an order to destroy is received for the Toxicology Unit a request will be created within LIMS for such destruction and assigned accordingly. To determine the cases requiring destruction, a worklist will be created from LIMS. Prior to destruction of the evidence, a second analyst will verify items to be destroyed. This will be documented on the worklist. The chain of custody will be updated as with any transfer.

**Appendix A**:

Protecting Evidence From DNA Contamination

When evidence is to be analyzed by multiple units and there is work to be performed prior to the evidence going to FB/DNA the following is guidance to protect the evidence from DNA contamination. Note this guidance is for analysts in units other than FB or DNA, FB and DNA analysts have unit specific guidance to follow.

Within the DSS DNA contamination may occur from either the analysts or the environment. The goal of this guidance is to minimize these two factors.

Proper PPE will be worn in order to protect the analyst as well as the items of evidence.

1. Proper PPE.
   a. Lab coats: Clean lab coats are to be worn buttoned closed. It is recommended that laboratory coats be changed weekly when handling evidence.
   b. Disposable Sleeves: Disposable sleeves should be worn over the sleeves of the laboratory coat to prevent the sleeve of the coat touching the evidence item(s).
   c. Gloves: Disposable nitrile or latex gloves are to be worn.
   d. Masks: Face masks are to be worn that fit snuggly over the mouth and nose.
   e. Hair Nets: should be worn.

To minimize DNA contamination due to environmental factors items such as the cleaning of benchtops, reagent bottles, pens and similar laboratory supplies must be considered.

2. Cleaning: Cleaning of benchtops and re-used laboratory implements should occur before and after use.
   10% bleach is the best for disinfecting surfaces. To disrupt DNA a stronger solution of 10% - 20% may be used.
   a. Benchtops: clean with 10% - 20% bleach and put a clean covering such as brown paper or bench coat over the cleaned surface.
   b. Pens, scalpels and other reusable implements: clean with 10% -20% bleach then with Ethanol. Since bleach can disrupt DNA the bleach must be rinsed off of the item prior to use.

Good laboratory practices must be employed while handling evidence. These are some general tips to minimize contamination from both the analyst and the environment.

3. Good Laboratory Practices:
   a. Think ahead. Prepare the work area, clean and cover the surface, obtain the laboratory items needed prior to bringing out and working on the evidence. When cleaning re-usable laboratory equipment use kimwipes (or equivalent) wet with the bleach to scrub the items, then rinse these liberally with ethanol. Any item that will be touched while examining the evidence should be cleaned before use, including:
      . Pens
      . Cameras
      . Worksheets
      . Reagents
      . Scalpels
      . Other
   b. Wear gloves and other PPE for all steps including while retrieving reagents or other laboratory items. If common areas are touched, such as door knobs, refrigerator/freezer handles or cabinet handles while gloved; gloves must be changed prior to touching the evidence.
   c. Once the work area is cleaned, the work surface is set up and proper PPE is on, open the evidence. Gloves should be changed after handling the exterior evidence packaging.
   d. Work left to right. Open the evidence container on the left side of the cleaned workspace, put the items to the right of the evidence packaging on a clean part of the bench coat.
   e. At any time if anything was touched that is not cleaned, gloves need to be changed.
   f. Avoid sneezing, coughing or excessive talking while handling evidence or portions of the evidence; even while wearing a facemask.
   g. Work on low-yield items before high-yield items.
      i. Low yield: these are items that are less likely to have a large amount of DNA deposited on them. This includes items that need swabbing for “touch” or wearer DNA.
      ii. High yield: items where these is likely a larger deposit of DNA such as items with visible probable blood stains or other biological fluid staining.
   h. Do not handle personal phones or other personal items while working on evidence.
   i. Clean reusable laboratory items and benches between items of evidence.