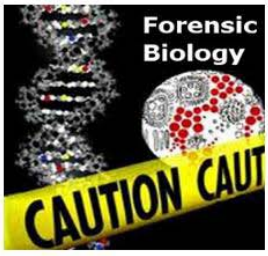
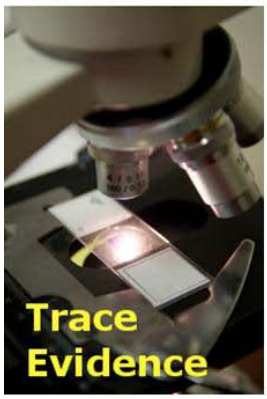
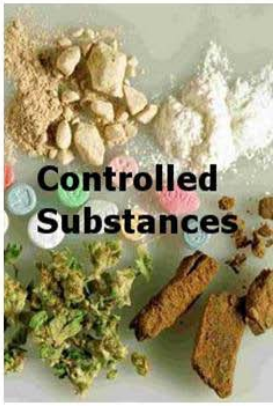
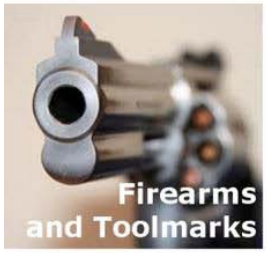
ALLEGHENY COUNTY
OFFICE of the MEDICAL EXAMINER

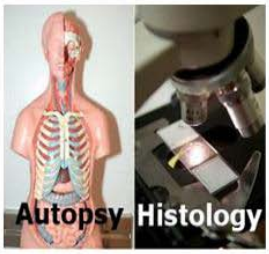
SUBMISSION MANUAL











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FOREWORD

The Laboratory is a Internationally Accredited independent resource that supports Law Enforcement, the District Attorney's and Public Defender's Offices, health, and environmental agencies, the judicial court system, and the citizens of Allegheny County by providing forensic, clinical, and environmental analysis, consultation, expert testimony, education, and research.

The scientific analysis of test items is significant only if they are documented, gathered, packaged, preserved and submitted to the Laboratory in a manner that will protect evidence from loss, cross transfer, contamination and/or deleterious change.

This manual contains scientifically accepted and practical procedures for the handling and packaging of test items and it outlines the proper procedure for submission of test items to the Laboratory.

Because of the many types of test items involved in the investigation of crimes, it is not possible for this manual to list every conceivable type of potential test item which may come to the attention of the investigating officers, nor can it cover every circumstance or condition. The suggested procedures cover the more common types of test items; however, these procedures can be applied to practically all test items that may be encountered.

Robert M. Huston
Laboratory Director

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1. STATEMENT

1.1. The guidelines set forth in this manual are to be observed when handling, packaging, and submitting items to the Allegheny County Office of the Medical Examiner's Forensic Laboratory. These guidelines are designed to preserve evidentiary value and to ensure the safety of the individuals handling the test items. Exceptions to the guidelines will be reviewed on an individual case basis at the discretion of the respective Section Manager. The Laboratory reserves the right to refuse acceptance of any item that is not in accordance with the guidelines.

1.2. Agencies who submit items to the Laboratory for analysis are relinquishing authority to the Laboratory to determine which testing methods will best meet the service request of the client.

1.3. This manual, in any form, is the property of the Allegheny County Office of the Medical Examiner. Any unauthorized deletions, insertions, or alterations are prohibited. The Laboratory reserves the right to make revisions to this manual at any time. A link to the most current version will be maintained on the Allegheny County Website (http://www.alleghenycounty.us), Office of the Medical E xaminer Forensic Laboratory Homepage and the DATA website (http://p080.da.allegheny.pa.us/). All printed copies of the Laboratory Submission Manual are considered uncontrolled; the website postings should be referred to for the most current version of the manual.

1.4. Evidence submitted to the ACOME should be done utilizing the Porter Lee Corporation's (PLC) BEAST Web Portal Prelog application. In the event that the Prelog application is unavailable, evidence will be accepted using hard copy submission paperwork and procedures. Submissions to the Environmental Chemistry Section are exempt from using the Prelog application.

♦END♦

2. SERVICES

The Allegheny County Office of the Medical Examiner Forensic Laboratory is comprised of seven (7) specialized disciplines and provides additional services. A description of each discipline and service is listed below. The Laboratory has an evidence submission and reception area where Evidence Specialists receive test items for the entire Laboratory. The Laboratory's operational hours are 8:00 am to 4:30 pm, Monday through Friday and submissions of test items can be received by the Evidence Specialists during those hours. Law Enforcement Agencies can deliver and secure evidence in overnight evidence lockers after operational hours.

2.1. Drug Chemistry

The Drug Chemistry Section is responsible for the examination of physical evidence submitted by law enforcement agencies to determine the presence and/or absence of controlled substances in pure, legal, or illicit dosage forms.

2.2. Firearms and Toolmarks

The Firearms and Toolmarks Section is responsible for examining firearms, fired components, toolmarks and tools, clothing articles recovered from shooting victims, and shoe and tire print evidence. This section is committed to providing investigative information to police agencies by participating in the Bureau of Alcohol, Tobacco, Firearms, and Explosives (BATFE) National Integrated Ballistics Information Network (NIBIN) program, and by maintaining and manually searching an open case file of fired components (discharged bullets, cartridge cases, and shotshell cases). NIBIN automatically searches the databases of the Pennsylvania State Police and the Philadelphia Police. On request, databases from other United States NIBIN partners can be searched. For more information on NIBIN visit http://www.nibin.gov/ .

2.3. Latent Prints

The Latent Print Section is responsible for the evaluation, analysis, and comparison of latent prints discovered at crime scenes. The section is also responsible for the processing of items of evidence for latent prints.

Other functions of the Latent Print section include entry of unidentified latent prints into the Automated Fingerprint Identification System (AFIS), post mortem printing, alternate light source examination of evidence, and providing training for municipal officers.

2.4. Forensic Biology

The Forensic Biology Section is comprised of two sub disciplines: Serology and DNA. The Serology section is responsible for the processing of test items recovered during the course of a criminal investigation that display physiological fluid staining. Items examined are subjected to a series of tests to determine if staining of probative value is present. If the staining is deemed valuable, additional testing is performed to determine the source of the staining by the DNA section. The DNA profiles obtained from evidence may be entered into CODIS (Combined DNA Indexing System) in an effort to provide investigative leads.

2.5. Toxicology

The Toxicology Section offers an extensive range of forensic testing services to the law enforcement agencies in Allegheny County as well as the Allegheny County Office of the Medical Examiner. These analyses are performed using modern instrumentation and techniques to accurately quantitate drugs and chemicals in biological fluids. The section's specialties include: analysis for driving under the influence of drugs and alcohol, drug facilitated sexual assault, and death investigations.

2.6. Trace Evidence

The Trace Evidence Section examines hair, fiber, paint, glass, primer gunshot residue (carbon stubs and clothing), fire debris, explosives and explosive related devices to include fireworks or pyrotechnic devices and post-blast debris. Other miscellaneous items examined include solvents, household chemicals, oils, greases, tape, and soil. Examination of two or more items to determine if they had once been one item (physical match) is also performed. Any of these items may be submitted to the Laboratory for identification or comparative analysis.

2.7. Environmental Chemistry

The Environmental Chemistry Section provides analytical support for Allegheny County's Health Department. Environmental Chemistry specializes in analyzing air, water, and food samples. Air samples are analyzed for total suspended particles, organics, inorganics, heavy metals and known carcinogens. Water samples are analyzed for primary and secondary drinking water contaminants which are regulated by the Pennsylvania Department of Environmental Protection (DEP). Food samples are analyzed for evidence of product tampering and for the presence of adulterants. Water, dust, paint chips, and soil samples are analyzed for the presence of lead, which may contribute to elevated blood lead levels in children.

2.8. Mobile Crime Unit and Vehicle Processing

The Mobile Crime Unit provides assistance in processing crime scenes throughout the county when requested. The unit is staffed with experienced scientists and is equipped to properly document scenes as well as properly recover and preserve any physical evidence. When the crime scene is or involves a vehicle, the vehicle can be towed to the Laboratory where the Mobile Unit personnel and/or police can process the vehicle in a properly equipped and secured location.

2.9. Web Based Evidence Prelog and Case Query

The Porter Lee Corporation's (PLC) BEAST Web Portal Prelog application is a JNET hosted web portal. This web based application provides a means for Law Enforcement Agency personnel in Pennsylvania to pre-log evidence prior to delivery to the local Forensic Laboratory. It also provides a means for Law Enforcement to view items submitted to the Laboratory for analysis, to view the progress of their cases throughout the Laboratory and to download PDF copies of completed reports.

2.10. Ion Mobility Spectrometry

Ion Mobility Spectrometry testing can be performed on currency samples believed to be used for and in conjunction with drug transactions. Upon request, IMS can be used by the Allegheny County Office of the Medical Examiner (ACOME) Drug Chemistry Section to analyze submissions for the suspected presence of cocaine.

♦END♦

3. GENERAL GUIDELINES

The following guidelines are to be observed when submitting evidence to any Section of the Laboratory. In addition to these guidelines, please refer to the Section specific guidelines for any additional information and regulation in effect for each Section. The Laboratory's policy and procedures for packaging, labeling, and sealing of evidence supersede the individual agency's policy and procedures.

Please refer to Appendix 15.1 for specific instructions concerning the packaging and transportation of biohazardous materials.

3.1. Packaging

3.1.1. All evidence must be handled and packaged so as to protect it from loss, cross transfer, contamination, and/or deleterious change.

3.1.2. The outer most packaging must be no smaller than a standard business sized envelope with an approximate dimension of 4" x 9".

3.1.3. Packaging material should consist of an envelope, bag, cardboard box, etc. that is sturdy and can withstand tearing or ripping from the contents within during transportation and storage.

3.1.3.1. Breathable packaging, (i.e., paper), is preferred. It is understood that evidence bags may have been purchased that are of a different material to include plastic. If plastic bags are used, they must be evidence quality, to include leak proof, tear, and puncture resistant plastic. The recommendation is a minimum of 4 millimeter thick, poly bags that are self adhesive or that can be heat sealed closed.

3.1.4. Packaging of biological fluids or liquid samples must be submitted in a leak proof container and packaged in leak proof material (e.g., urine sample collected in a specimen cup and packaged in a leak proof poly evidence bag).

3.1.5. Outer packaging that has a "plastic window" will not be accepted.

3.1.6. Large objects such as long arms, doors, lamps, safes, windows, etc., that are being submitted for latent prints, trace, or serological analysis should be packaged in paper or cardboard boxes to ensure that they will not move around inside the packaging. Movement may damage or destroy the probative nature of the item.

3.1.7. Long arms that do not require examination by the Latent Prints or Forensic Biology sections may be submitted unpackaged due to their bulky nature. A tag with the case information (i.e., Agency Name, Incident Number and a brief description of long arm) must be affixed to the trigger guard of the long arm being submitted. The long arm in question must also be marked, "cleared and inspected by:" and include the officer's name and /or badge number. This is addressed further in section 6.2.3.3.

3.1.8. All sharp objects MUST be packaged in approved "sharps" containers. A sharp object is any object that can puncture, perforate, or pose similar physical danger to persons handling the item.

NOTE: If the approved "sharps" container does not meet the minimum packaging requirement of 4"x 9" the approved "sharps" container must be packaged in an additional envelope or paper bag that does meet the minimum requirements.

3.1.9. Do not place multiple pieces of evidence requiring examination by different Laboratory Sections within the same sealed package.

3.1.10. Do not place evidence from multiple incidents within the same package.

3.1.11. Items that require examination by multiple Laboratory Sections should have the section names **clearly marked on the container**. In the Prelog, each section that needs to examine the item should be selected in the *"Analysis"* area of the *"Lab Submission"* tab.

3.1.12. Convenience packaging can be used to contain and transport multiple **sealed** pieces of evidence for the same case. All convenience packages should be marked with the agency incident number, a list of the contents, and **should not be sealed.**

3.1.13. If evidence is too large to be packaged due to size, weight, or shape for transport to the Laboratory, every effort should be made to protect/preserve the area of probative value until it can be transported to the Laboratory or processed by the Laboratory Mobile Unit.

3.2. Labeling

3.2.1. All items of evidence are to bear identifying marks of the submitting agency including at a minimum, but not limited to:

- Submitting Agency name
- Submitting Agency Incident Number (or equivalent)
- Inventory/Description of package contents

3.2.2. Items that pose physical danger to persons handling the container (e.g., knives, syringes, HIV +, HEP +, etc.) should have a warning (i.e., "BIOHAZARD", "SHARP") **boldly** indicated on the outer packaging.

3.2.3. Please refer to Appendix 15.1 for specific instructions concerning the packaging and transportation of biohazardous material.

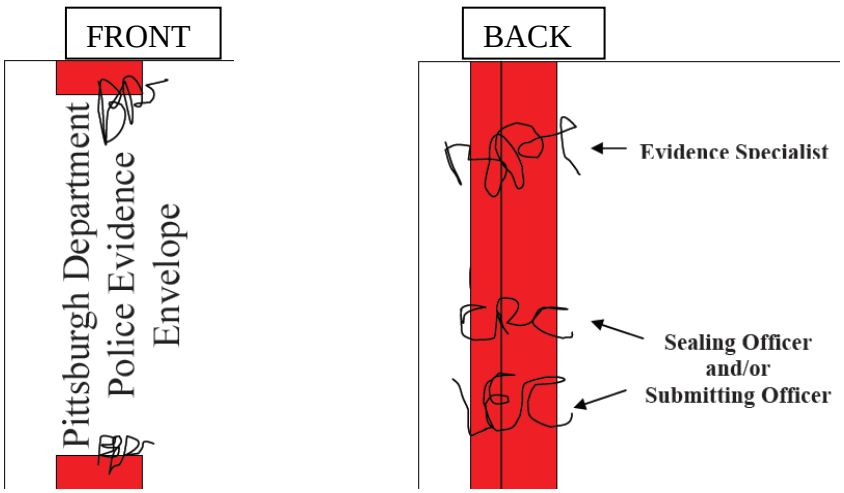
3.2.4. Items associated with suspect(s) designated as juvenile(s**)** should be marked "JUVENILE" on the outer most packaging.

3.2.5. Labeling must be done directly on the outer packaging. A paper with content description and ident**if**ying marks stapled or taped to outer packaging is not ac**c**eptable. Labeling stickers and barcode tracking stickers are acceptable.

3.3. Sealing

3.3.1. Each item must be packaged in a properly sealed container. Seals should be fashioned such that the integrity of the item is ensured. An item is properly sealed only if its contents cannot readily escape or be contaminated.

3.3.2. All evidence submitted to the Laboratory must have the external packaging sealed and the sealing agent's initials/signature across the evidence seal.



NOTE: Convenience packaging should not be sealed.

3.3.3. Acceptable packaging seals should be constructed of packing tape or a heat seal.

3.3.3.1. Examples of packaging seals that are **NOT** acceptable include Scotch® Transparent Tapes (and similar products), masking tape, staples, and butterfly clasps.

3.3.3.1.1. Manufacturer seals (i.e., self adhesive envelopes) alone **DO NOT** constitute a proper seal. They must be secured with appropriate material as outlined in 3.3.3.

3.3.3.1.2. Staples may be used to help secure packaging, but staples alone **DO NOT** constitute an acceptable seal.

3.4. Requests

3.4.1. All requests for "RUSH" cases MUST be directed to the Laboratory Director or Section Manager.

3.4.2. Only items that are to be tested are to be submitted. The Laboratory will not accept evidence for storage purposes.

3.5. Evidence that Requires Examination by Multiple Sections

It is impossible to describe the proper packaging techniques for every type of evidence encountered. However, it is important to consider how the packaging and labeling of evidence may be impacted when multiple examinations (i.e., latent prints, toolmarks, drugs, serological, and ignitable analysis) are needed. Therefore, the assistance of Laboratory personnel should be solicited when a concern regarding packaging arises. More detailed, section specific packaging requirements are outlined in the specific discipline guidelines sections contained in this manual.

3.6. Removal of Submitted Items

3.6.1. Processed Evidence should be retrieved from the Laboratory within ten (10) days of receiving the completed "Report of Laboratory Findings".

3.6.2. The release of evidence will follow the established procedures set forth by the Laboratory.

3.6.3. Failure to retrieve evidence from the Laboratory may result in refusal to receive new case evidence submissions. Once the existing case evidence has been removed, new case evidence submissions can be received by the Laboratory.

3.7. Packaging of Items Submitted for Analysis

The original packaging of items submitted to the Laboratory may be returned to the submitting agency, absent the contents. The original packaging contains the original markings, identification, and chain of custody. Original packaging is often requested by the District Attorney's Office in court proceedings; it is beneficial to maintain these pieces of evidence packaging once they have been returned. The Laboratory Personnel will note on the empty packaging that the items have been removed.

3.8. Receipt of Submitted Items

An "Evidence Submission Form" will be provided to the submitting agent at the time of submission.

3.9. Incident Reports

It is understood that some agencies prefer not to submit incident reports with the submission of their evidence. This will not result in refusal to receive the evidence, but it may result in a delay in processing the evidence as the agency/investigating officer will have to be contacted to obtain information that would otherwise have been provided in the incident report.

3.10. General Submittal Form (EV.1F)

This form is only to be used in the event Prelog is unavailable or by agencies with no JNET access.

3.11. Safety

3.11.1. Loaded or possibly loaded firearms will NOT be accepted by the Laboratory. (This includes rusty/heavily corroded firearms that cannot be cleared.)

♦END♦

4. GENERAL GUIDELINES FOR PRE-LOGGING EVIDENCE

4. GENERAL GUIDELINES FOR PRE-LOGGING EVIDENCE

4.1. Laboratory submittal forms are required in addition to the Prelog Request for Forensic Analysis forms for Driving Under the Influence cases (DUI/DUID) and for Sexual Assault cases only.

4.2. Be consistent with the format when entering information. This will make searching for the desired information on the web pre-log site an easier task and better results can be achieved.

4.3. A link to a detailed Pre-Log User Manual will be available on the web pre-log log-in page. Questions can be answered by the Laboratory Evidence Specialists.

4.4. The Evidence Specialists reserve the right to refuse evidence that has not been pre-logged or packaged properly. A kiosk will be available at the Laboratory for the delivering person to make corrections to the pre-logged evidence.

4.5. Reports will no longer routinely be mailed or faxed. All completed reports should be available on the Web portal site. If a report is not available on the web portal, contact the Laboratory Evidence Specialists.

4.6. Case Information

4.6.1. The mandatory fields on the Case Info screen are: Incident Number, Officer Name, Officer Phone, Offense Date**,** Offense Location, Offense Type, County and Case Type.

4.6.1.1. The most serious Offense Type should be entered first.

4.6.1.2. Only one Offense Type is required.

4.6.2. For Toxicology cases, be specific in the case type selection. See Section 9.1 for a description of the Toxicology Case Types.

4.6.3. Select *"Forensic Analysis"* as the *"Case Type"* for all other submissions.

4.6.4. The incident number should be a unique identifying number for your agency and should be entered using a format that does NOT include punctuation such as hyphens, periods, etc.

4.6.5. Information to be conveyed to the Laboratory that addresses the case/incident should be placed in the "*Case Comments"* field.

4.7. Names

4.7.1. The name entered first becomes the case name. If there is a victim other than the Commonwealth of Pennsylvania, enter the victim's name first. If there is no victim, enter the suspect's name. If the case name is a location, enter the street,

road, etc in the "Last Name" tab and the house or lot number in the "First Name" tab.

4.7.2. When the suspect/actor is a juvenile, you must enter the Date of Birth AND select "Yes" in the *"Juvenile"* field. Failure to do so could result in a delay in receiving Laboratory results.

4.7.3. Remember to enter the OTN when available. It should be entered using a format that does NOT include punctuation such as hyphens, periods, etc. Failure to do so could result in a delay in receiving the Laboratory results.

4.7.4. Remember to enter the SID when appropriate. Failure to do so could result in a delay in receiving the Laboratory results.

4.7.5. The Social Security Number should only be entered when the SID is not available.

4.8. Items

4.8.1. One sealed package/container is considered to be one item. One description line should be used for each package being delivered to the Laboratory. Example: Three properly sealed and labeled brown paper bags are being delivered to the Laboratory. The Prelog Request for Forensic Analysis should contain three line items on the Analysis Request Information section.

4.8.2. Be accurate in the item descriptions. The pre-log program can be used to search the item description field.

4.9. Lab Submission

4.9.1. Delivery type is a mandatory field.

4.9.1.1. Evidence Locker Submission is to be selected when the evidence is being delivered to the Laboratory after normal business hours and the evidence storage lockers are used.

4.9.1.2. Hand Delivered is to be selected when delivering evidence to the Laboratory during normal business hours.

4.9.2. Each section has information they need to know about the items being submitted for analysis. The specific information requested can be found in Guidelines for each section. This information should be placed in the "*Analysis Comments"* field on the "*Lab Submission"* tab.

4.9.3. In cases where more than one item is listed for a Laboratory submission and comments need to be made for each item, please indicate which item each comment belongs to.

4.9.4. Items to be selected for delivery to the Laboratory will not appear until the *"Add"* button has been selected. Use the *"Select"* button in the *"Analysis"* column for the item to select the Laboratory section that will need to examine the item. Once the section(s) have been selected, the item will be added to the Prelog Request for Forensic Analysis. More than one section can be selected for each item. If an item needs to be examined by more than one section, remember to select each section that needs to examine the evidence being submitted.

♦END♦

5. GUIDELINES FOR SUBMISSION TO DRUG CHEMISTRY

5. GUIDELINES FOR SUBMISSION TO DRUG CHEMISTRY

5.1 Minimum and Prelog Requirements for Submission of Evidence

5.1.1 It is imperative that the actor OTN information be provided in the *"Names"* tab. It should be entered using a format that does NOT include punctuation such as hyphens, periods, etc. Failure to provide a valid OTN may result in the submission not being accepted.

5.1.2 If the actor is a Juvenile, enter the *"Date of Birth"* AND select "Yes" in the *"Juvenile"* field on the *"Names"* tab. The evidence should be marked "JUVENILE" on the outer packaging to alert the Evidence Specialists. This will ensure the case is worked in timely manner to meet court requirements.

5.1.3 Any potential biohazardous threat that may exist with any drug chemistry evidence submission must be indicated in the "*Analysis Comments"* field on the "*Lab Submission"* tab.

5.1.4 When possible, the exact quantity of each item must be verified and included in the item description on the *"Items"* tab. When exact quantities have not been verified please indicate as '*approximate'*.

5.1.5 The drug suspected should be clearly indicated in the item description with each item submitted.

5.1.6 An incident report should accompany all submissions to the drug section. If an incident report is not available, information regarding where individual items were recovered from must be specified in the "*Analysis Comments"* field on the "*Lab Submission"* tab. The absence of an incident report may delay processing (See Section 3.9).

5.1.7 "*Drug Chemistry"* should be selected as the *"Analysis"* on the *"Lab Submission"* tab.

5.2 General Packaging of Evidence

5.2.1 For very large samples, such as suitcases, travel bags, or large plants, a sealed corrugated cardboard box is preferable to other types of packaging.

5.2.2 Evidence from different suspects in the same case can be submitted together in the same outer packaging. Internally, they must be packaged separately and each must be clearly marked with the suspect's name.

5.2.3 Improperly packaged evidence will not be accepted and will be returned to the submitting agency.

5.2.4 Please refer to Appendix 15.1 for specific instructions concerning the packaging and transportation of biohazardous materials.

5.3 Vegetable Matter

5.3.1 Freshly harvested vegetable matter must be dried and packaged in a suitable and sealed paper container prior to submission to the Laboratory. Do NOT seal freshly cut suspected marijuana in plastic bags since such packaging promotes the growth of mold and the deterioration of the vegetable matter.

5.3.2 To be considered a plant, the vegetable matter must have an attached root system. Remove excess soil from the root system prior to submission to the Laboratory.

5.3.3 Moldy vegetable matter will NOT be accepted. In the event moldy vegetable matter is discovered at the time of analysis, it may be repackaged and returned unanalyzed.

5.4 Restrictions

5.4.1 Found drug cases which have no suspect or victim should not be submitted to the Laboratory for analysis.

5.4.2 Residues and paraphernalia, including needles, broken glass pipes, and syringes, are not to be submitted for analyses unless they are the only items confiscated from a suspect.

5.4.3 The Drug Chemistry section will not accept any drug field testing kits.

5.4.4 Syringes

Syringes submitted for analysis by the Drug Chemistry section must be properly placed into an approved sharps container.

NOTE: If the approved “sharps” container does not meet the minimum packaging requirement of 4”x 9” the approved “sharps” container must be packaged in an additional envelope or paper bag that does meet the minimum requirements.

♦END♦

6. GUIDELINES FOR SUBMISSION TO FIREARMS AND TOOLMARK

6. GUIDELINES FOR SUBMISSION TO FIREARMS AND TOOLMARKS

6.1. Minimum and Prelog Requirement for Submission of Evidence

6.1.1. Case Types Accepted

6.1.1.1. All firearms recovered as a result of the commission of any crime and found firearms should be submitted to the Laboratory.

6.1.1.2. The Laboratory does **NOT** check to determine if a firearm had been stolen, nor does it check for ownership.

6.1.1.3. All fired components recovered as a result of the commission of any crime should be submitted to the Laboratory.

6.1.2. Case Types NOT Accepted

6.1.2.1. Firearms that have been confiscated but are **NOT** believed to have been used in a crime should **NOT** be submitted to the Laboratory. Examples of this include Protection from Abuse (PFA) cases, 302 Commitment cases, cases where guns are found at the home of a deceased person whose death was nonviolent or noncriminal in nature, guns from old safety deposit boxes, etc.

6.1.2.2. Firearms turned over to the police because the family no longer wants them or firearms held by the police for safe keeping should **NOT** be submitted to the Laboratory.

6.1.2.3. Loaded or possibly loaded firearms will NO LONGER be accepted by the Laboratory. (This includes rusty/heavily corroded firearms that cannot be cleared.)

6.1.2.4. Firearms placed in the overnight lockers will not be accepted.

6.1.3. Suicide Cases

6.1.3.1. If the cause of death as determined by the Medical Examiner is suicide, firearms related evidence will no longer routinely be examined. Should an examination be required, please contact the Firearms Section Manager.

6.1.4. Inspection of Firearms

6.1.4.1. The person submitting the evidence firearm MUST open the packaging AT THE LABORATORY to ensure that the chamber is clear and the action is blocked by a zip tie (see section 6.2). This

MUST be visually verified by the Forensic Evidence Specialist receiving the items.

6.1.4.1.1. For firearms requiring Latent Prints or Touch DNA testing, the pre-submission inspection will be performed in a designated clean area. Personal protective clothing, i.e. gloves, masks, will be made available as needed.

6.1.4.2. The Forensic Evidence Specialist will not assist in the firearm clearing process, which includes zip tying any weapons.

6.1.5. Prelog Requirement

6.1.5.1. For all firearms, include the caliber, manufacturer and serial number in the item description on the *"Items"* tab.

6.1.5.2. For items requiring analysis by other Laboratory Sections, remember to add those sections when selecting the *"Analysis"* on the *"Lab Submission"* tab.

6.1.5.3. If any changes are made to the condition of the firearm as it was recovered (e.g., safety applied), list those changes as well as the name of the person making the changes in the *"Analysis Comments"* field on the *"Lab Submission"* tab.

6.1.5.4. Examination of clothing for range determination will not be performed unless specifically requested. Chemical testing of the clothing will only be done if the firearm used in the incident has been recovered and submitted to the Laboratory. Indicate which clothing articles need to be examined in the *"Analysis Comments"* section of the *"Lab Submission"* tab.

6.1.5.5. *"Firearms and Toolmarks"* should be selected as the *"Analysis"* on the *"Lab Submission"* tab for all case types.

6.2. Packaging Guidelines

6.2.1. ALL firearms are to be submitted **UNLOADED** and secured safe. As indicated in Section 6.1.4, all firearms will be opened by the submitting person at the time of submission to allow the Evidence Specialist to verify that the following safe submission requirements have been met.

6.2.2. ALL firearms MUST have a plastic "zip tie" strap through the action and/or barrel to make the firearm "safe" for submission. A cable lock through the action (but never through the barrel) is also acceptable. This means that with the

zip tie or cable lock properly in place, the action of the firearm cannot be closed. See Section 15.3 for examples as described below.

6.2.2.1. The acceptable methods of securing the action of a firearm are:

6.2.2.1.1. Pistol, rifle, shotgun – zip tie or cable lock secured through ejection port/magazine well OR around receiver and tightly holding bolt in open position (if no magazine well)

6.2.2.1.2. Revolver – zip tie secured through barrel (note that a zip tie through the cylinder only is not acceptable)

6.2.2.1.3. Break-open firearms – zip tie or cable lock secured between frame and barrel OR through barrel**.**

6.2.2.2. Recommended plastic "zip ties" are: U-Line brand, 14 inch, 50 pound tensile strength cable ties or #50 zipties.

6.2.2.3. Firearms with thick plastic "flex cuffs", a chain of small zip ties, or other items (such as pen caps, paper clips, tape, string, etc.) placed in the action or down the barrel will NOT be accepted.

6.2.3. Acceptable types of packaging:

6.2.3.1. For firearms requiring latent print or DNA testing or for firearms that are bloodstained: Cardboard boxes or appropriately sized heavy duty paper bags. Heavy duty plastic bags are **NOT** acceptable.

6.2.3.2. For handguns **NOT** requiring latent print or DNA testing : cardboard boxes, manila envelopes, appropriately sized heavy duty paper bags or appropriately sized heavy duty plastic bags.

6.2.3.3. For long arms **NOT** requiring latent print or DNA testing: No packaging is preferred. Attach an evidence tag containing the agency name, agency incident number, description of the firearm and "Cleared and Inspected By" officer name.

6.2.3.3.1. Cardboard boxes, flat heavy duty paper bags, and heavy duty plastic bags are also acceptable.

6.2.3.3.2. The Laboratory does not take responsibility for damage to unprotected / unpackaged evidence.

6.2.4. Unacceptable types of packaging:

6.2.4.1. Firearms that are tightly wrapped in paper or in inappropriately sized bags that have been taped together will not be accepted.

6.2.5. Each **firearm** is to be submitted in its own sealed container.

6.2.5.1. Any loose cartridges/shotshells that have beenrecovered with the firearm MUST be placed in a separate envelope, sealed, and then placed in the same container as the firearm.

6.2.5.2. The magazine(s) recovered with the firearm SHOULD be placed in a separate envelope, sealed and then placed in the same container as the firearm.

6.2.5.3. The outside container should list the contents of the items inside the container (e.g., Smith & Wesson 9 mm pistol, serial number XXX9999, 10 cartridges, one magazine).

6.2.5.4. The description on the outer packaging must include the statement "Inspected and cleared by (officer's name and/or badge number)" to document that the firearm has been checked and is not loaded.

6.2.5.5. Cartridges/shotshells submitted with a firearm may be used to test fire the firearm or they may be retained for laboratory use unless otherwise notified.

6.2.5.6. The position of the cartridges and/or discharged cartridge cases in a revolver cylinder may be documented before removal. The chamber that was "under the hammer" may also be marked for future reference.

6.2.6. If the evidence needs to be examined by multiple sections, remember to select each Laboratory section in the *"Analysis"* area on the *"Lab Submission"* tab.

6.2.7. Sealed evidence packages containing any bloodstained items MUST be marked "BIOHAZARD" on the outer packaging. The use of a biohazard label is preferred.

6.2.8. If a firearm has a lock attached or engaged, the key for said lock should also be submitted. If there is no key and the lock cannot be easily compromised, attempts to remove or disengage the lock may cause permanent damage to the lock.

6.3. Fired Components

6.3.1. When appropriate (i.e., homicides, officer involved shootings, etc.), the locations of the individual fired components (spent cartridge cases, bullets, pellets, shotshells, wads) should be recorded and each should be placed in its own envelope. All of these envelopes should then be placed in one larger container, labeled as to the contents of the container, and should be submitted to the Laboratory as one exhibit. No markings should be made directly on any of the fired components.

6.3.2. Fired components should be submitted no later than one week after recovery in order to facilitate useful investigative information.

6.3.3. Some cartridge cases and bullets may be retained by the Laboratory and placed in the Laboratory's open case file.

6.3.4. Some cartridge cases may be entered into ATF's NIBIN (National Integrated Ballistic Information Network) system.

6.3.5. Sealed evidence packages containing any bloodstained items MUST be marked "BIOHAZARD", preferably using a biohazard label.

6.4. Clothing

6.4.1. Examination of clothing for range determination will not be performed unless specifically requested. Chemical testing of the clothing will only be done if the firearm used in the incident has been recovered and submitted to the Laboratory. Indicate which clothing articles need to be examined in the *"Analysis Comments"* section of the *"Lab Submission"* tab.

6.4.2. Clothing articles submitted for range determination examination **MUST** be submitted dry. Lay each clothing article flat on clean white paper. When dry, **GENTLY** roll the paper and clothing article together, place in a paper bag, and seal the bag.

6.4.3. Submit only the articles of clothing to be examined for range determination and/or those that have bullet holes. Proper care should be taken so as not to dislodge gunpowder particles from the clothing articles.

6.4.4. Do not push anything into or disturb the fibers around any bullet hole. Fiber position may be the only indicator as to an entry or exit bullet hole.

6.4.5. The paper bag containing the clothing should be labeled with the name of the person who had been wearing the clothing and should also have the case information.

6.4.6. Sealed evidence packages containing any bloodstained items MUST be marked "BIOHAZARD", preferably using a biohazard label.

6.5. Toolmark Evidence Submission

6.5.1. Toolmarks where no tool has been recovered should not be submitted to the Laboratory until there is a specific tool available for comparison. **THE EVIDENCE SHOULD STILL BE COLLECTED FROM THE SCENE.**

6.5.1.1. Homicide cases are an exception: the toolmark can be submitted without a tool for comparison.

6.5.2. Tools should be packaged in boxes separate from the marked surfaces. **If they are packaged together and unprotected from each other, they will not be examined.**

6.5.3. Marked surfaces to be examined must be protected from any further abuse.

6.5.4. If a tool marked section of evidence has to be removed from the main body of evidence by cutting, the surfaces cut by the investigator must be clearly labeled. If appropriate, orientation of the cut section to the main body of evidence should also be documented.

6.6. Shoe / Tire Print Evidence

6.6.1. Shoe and tire impression/prints where no shoe(s) or tire(s) have been recovered should not be submitted to the Laboratory until there is a specific shoe or tire available for comparison. **THE EVIDENCE SHOULD STILL BE COLLECTED FROM THE SCENE.**

6.6.1.1. Homicide cases are an exception, where the shoe/tire impression can be submitted without a shoe/tire for comparison.

6.6.2. Photographs of shoe and tire impression/prints submitted for examination/comparison purposes should include a scale and hard copies should be printed out at a 1:1 ratio. Photographs should be taken with the camera perpendicular to the impression.

6.6.3. Objects containing shoe or tire prints should be packaged so as not to damage the print.

6.6.4. Casts of shoe or tire impressions should not be cleaned until after the cast has reached its final set (two to three days after the initial set). Casts can be cleaned at the Laboratory

6.6.5. Casts should be packaged in a manner to protect it from cracks and breaking, preferably in a cardboard box, or placing a solid surface under the cast prior to packaging to offer structural support. Packaging should also be marked as to which end is up so that the cast can be stored properly.

6.6.6. Bearing surfaces of shoes and tires should NOT be cleaned before submission to the Laboratory.

6.6.7. Shoes should be submitted dry and in paper bags. The name of the person who had been wearing the shoes must be marked on the evidence bag.

6.6.8. Tires must be marked as to the position on the vehicle. If the tires are removed from the rim, orientation of the tire on the rim should be documented.

♦END♦

7. GUIDELINE FOR SUBMISSIONS TO LATENT PRINTS

7. GUIDELINE FOR SUBMISSIONS TO LATENT PRINTS

7.1. Minimum and Prelog Requirements for Submission of Evidence

7.1.1. Actor/Victim, Date of Birth (DOB) and State Identification Number (State ID #) must be entered into the *"Names"* tab in Prelog. If the FBI Identification Number (FBI #) is available, it must be entered into the "*Analysis Comments"* field on the "*Lab Submission"* tab.

7.1.2. All evidence submitted to the Laboratory for analysis by the Latent Prints section must be clearly labeled "LATENT PRINTS" on the outer most packaging.

7.1.3. For items that need drug packaging processed, please clearly indicate in the *"Description"* field on the *"Items"* tab, the packaging that needs to be processed.

7.1.4. Documentation of items already processed and the process(es) conducted must be specified in the "*Analysis Comments"* field on the "*Lab Submission"* tab.

7.1.5. "*Latent Prints"* should be selected in the *"Analysis"* section of the *"Lab Submission"* tab.

7.1.6. Blood Prints

It is the responsibility of the submitting agent to verbally inform the Evidence Specialists when the evidence being submitted to the Laboratory has prints which have been deposited in blood. These items may require immediate photographing and should be left to air dry before packaging. If multiple pieces of evidence are involved, each should be packaged separately. Universal safety precautions must be taken when handling the evidence and a "*Biohazard*" warning label should be attached to the evidence container.

7.2. Packaging Guidelines

7.2.1. The outer packaging should be clearly marked "LATENT PRINTS" in bold lettering.

7.2.2. Large objects such as long arms, doors, lamps, safes, windows, etc., should be packaged in paper or cardboard boxes to ensure that they will not move around inside the packaging, possibly destroying the prints.

7.2.2.1. Never place filler, such as foam, paper, or packaging "peanuts" in with the evidence: this will destroy latent impressions.

7.2.3. Firearms

7.2.3.1. Gloves should be worn during the unloading/clearing of all firearms which are intended for submission to the latent prints section for processing/examination. Caution should be used during the firearm unloading /clearing process to avoid excessive handling which could result in the potential destruction of latent impressions.

7.2.3.2., The firearms should be secured to a stable backing (the commercially sold boxes for transporting firearms are ideal). If the commercially sold boxes are not used, package the firearm in a cardboard box and secure it by the tying technique used with commercially sold boxes.

7.2.4. Drug Evidence

7.2.4.1. Officers should not attempt to transfer drug evidence from its original packaging. Handling of plastic bags or any non-porous container, even when wearing gloves, may destroy latent impressions.

7.2.4.2. At times it is often impossible to distinguish between the "packaging" used by the officers and the "packaging" used by the suspect. Please clearly indicate and describe in the item description the packaging requiring examination/processing.

7.3. Preserving Developed Latent Prints During Transportation

7.3.1. In order to preserve developed ridge detail during transportation, cover the print with the **non-adhesive** portion of the lifter or a clear piece of acetate. Tape the edges securely to prevent movement during transportation. **Do not place adhesive lifting tape** over any developed latent prints. Use caution so as not to destroy any adjacent ridge detail. Even if the adjacent ridge detail is of no value for comparison purposes, it may be of assistance in determining the anatomical position of the fingers.

7.3.2. The preferred method of packaging and transporting developed latent prints is to secure the object in a sturdy container such as a box. The developed ridge detail should **not** come in contact with the container surface.

7.4. Lifts

7.4.1. All types of lifts are accepted, however, transparent lifts are recommended. It is recommended that all developed latent impressions be photographed before a lift is attempted.

7.4.2. All lifts from a single case may be packaged together.

7.4.3. All lifts should be labeled with the following (minimum) information:

- Agency case number
- Object from which the lift was made
- Date lifted
- Officer's initials

7.4.4. When a latent print is lifted a second time, the duplicate lift should be clearly marked "DUP."

7.5. Comparison Prints

All sets of known exemplars, whether they are elimination prints taken from victims or impressions recorded from a suspect, should be packaged separately from items that require processing and should be submitted as an individual item. Multiple sets of-known exemplars from the same person and/or different people may be packaged together. All names appearing on the known exemplar print card(s) must be legible (preferably printed). The item description should include all persons whose known exemplar prints are being submitted.

7.5.1. Known Exemplars (Victim – Suspect)

7.5.1.1. When available, known exemplars, to include both fingerprints and palm prints, should be submitted for those individuals who had justifiable access to the areas/items processed or collected.

7.5.1.2. Victim elimination prints **MUST** be submitted for all cases involving property crimes. Comparisons for suspects will not be performed beyond those suspects listed on the original case submission until victim elimination prints are submitted. Any exceptions to this must have prior approval of the Laboratory Director or Latent Print Section Manager.

7.5.1.3. All known exemplar prints of suspects must be clearly marked as such. The name must be legible (preferably printed). All known exemplar prints must be clearly and completely recorded.

7.5.1.4. Assistance from Latent Prints personnel may be available in obtaining known exemplar prints. Investigating officers should contact the Latent Prints section for additional information.

7.5.1.5. The use of fax or photostatic copies of inked prints to be used for latent prints comparison purposes is strongly discouraged. The Latent Print section reserves the right to refuse any fax or photostatic copy of inked finger and/or palm prints submitted for latent print comparison purposes.

7.5.1.6. The elimination prints that are submitted to the Forensic Laboratory must be of a high enough quality to permit their analysis. If the elimination prints received are of insufficient quality, a report of laboratory findings will be issued indicating that the received prints are of insufficient quality with a request to get an additional set of elimination prints.

7.6. Automated Search

7.6.1. Automated print searches will be performed at the discretion of the Latent Print Examiner. Determination will be based on several criteria, including but not limited to: (1) clarity and amount of second level detail present in the latent print; (2) if the ridge detail is within reasonable search parameters of AFIS; (3) the location/area from which the latent print was recovered; and (4) the feasibility of an elimination comparison.

7.6.2. Entry of latent prints of value into the Automated Fingerprint Identification System (AFIS) and/or the Integrated Automated Fingerprint Identification System (IAFIS) in cases involving property crimes will be deferred until elimination prints are submitted to the Forensic Laboratory.

7.7. Restrictions on the Submission of Evidence

7.7.1. As a Pennsylvania State Police remote AFIS site, this Laboratory is obligated to accept all evidence regardless of the type of crime.

7.7.2. The Laboratory reserves the right to limit the number of suspect comparisons that will be performed per case. Also, instances may arise when the Latent Print section will reject the comparison request based on the quality and quantity of impressions.

7.8. Digital Submissions

With the increase of popularity of digital cameras digital images of latent prints are being submitted more frequently. Specific guidelines must be followed in order to keep the integrity of the latent print so that it may be examined. The Latent Prints section has established requirements for all submissions of digital images of latent prints. Digital image submissions to the Latent Prints section must meet the minimum requirements in order to be examined. Digital images that do not meet these requirements will not be examined.

7.8.1. Latent prints submitted in digital format must be accompanied with the following documentation:

7.8.1.1. *Image Source* - a brief description of the surface or item bearing the friction ridge detail.

7.8.1.2. *Capture Device - a* description of capture device used (camera, flat bed scanner, other, etc.)

7.8.1.3.*Original Capture* - when an image is submitted to the Latent Prints section, the contributor must indicate that the image is the original capture or it must be evident from the file Meta Data. An image that has been enhanced/processed must be accompanied by the enhancement/processing documentation.

7.8.2. Digital Image File

7.8.2.1. The image file must be a file format without compression or with lossless compression.

7.8.2.2. The TIFF format is preferred.

7.8.2.2.1."Overall" photographs of latent prints (to document general location) may be submitted in JPEG format.

7.8.2.2.2. Digital images that will be used for comparison or AFIS purposes must be in TIFF format.

7.8.2.3. The image must have a minimum of 8 bits for grayscale images and 24 bits for color images.

7.8.2.4. The image must have a resolution that meets or exceeds 1000 pixels per inch (PPI) when calibrated to actual size (1:1).

7.8.2.4.1. This may be achieved by filling the view finder window as much as possible with the print image and scale.

7.8.3. Standard Measurement

7.8.3.1. Digital images of latent prints must include a scale (preferably in centimeters) if a search of AFIS or IAFIS is desired.

7.8.3.2. Images without a scale may not preclude their use for manual comparison if they meet all the above requirements.

7.8.4. Latent prints submitted as facsimiles, photocopies, or digital printouts will not be examined by the Latent Prints section.

7.9. Pittsburgh Police Submissions

7.9.1. The Pittsburgh Police Mobile Crime Unit personnel are responsible for the processing of all fingerprint evidence for the Pittsburgh Police Department.

7.9.2. All City of Pittsburgh evidence requiring latent fingerprint examination must be submitted to the Pittsburh Police Mobile Crime Unit.

♦END♦

8. GUIDELINES FOR SUBMISSION TO SEROLOGY

8. GUIDELINES FOR THE SUBMISSION TO FORENSIC BIOLOGY - SEROLOGY SECTION

8.1. Minimum and Prelog Submission Requirements

8.1.1. *"Serology"* should be selected in the *"Analysis"* section of the *"Lab Submission"* tab for all case types.

8.1.2. The ***Sexual AssaultSubmittal*** form (EV.2F) must accompany all sex assault submissions. Line 13 must be completed. **The Laboratory may refuse to receive the evidence if this information is not provided.**

8.1.3. In cases in which a hair comparison is deemed necessary, also select *"Trace Evidence"* in the *"Analysis"* section of the *"Lab Submission"* tab.

8.1.4. In cases in which latent print processing is required, *"Latent Prints"* should also be selected in the *"Analysis"* section of the *"Lab Submission"* tab.

8.1.5. Non-person crimes (e.g., Burglary*)*

8.1.5.1. Submit all probative evidence.

8.1.5.2. When a suspect(s) has been identified, submit either the blood (in a purple capped tube) or saliva (Bode Buccal Collector) from the suspect(s).

8.1.6. Aggravated Assault / Simple Assault / Robbery

8.1.6.1. Submit all probative evidence.

8.1.6.2. When a suspect(s) has been identified, submit either blood (in a purple capped tube) or saliva (Bode Buccal Collector) from the suspect(s) and any additional items of probative value.

8.1.7. Rape/Sexual Assault

8.1.7.1. A completed Sex Assault Form must be submitted. Line 13 must be completed. **See Section 8.1.2 above.**

8.1.7.2. Submit ONLY the sex crimes kit (if available) at this time.

8.1.7.2.1. Additional items (i.e., clothing, bedding, etc.) are not to be submitted at this time. Please wait for these items to be requested by Forensic Biology personnel.

8.1.7.2.2. If a sex crimes kit had not been collected but additional items are available, please consult with the Forensic Biology Manager or Forensic Biology personnel for approval.

8.1.7.3. In cases that are serial in nature, contact the Forensic Biology Manager for expedited testing.

8.1.7.4. Submit blood (in a purple capped tube) or saliva (Bode Buccal Collector) from the suspect(s).

8.1.7.5. Drug Facilitated Sexual Assaults (DFSA): In addition to the above items submit the following items.

- two (2) green top tubes of the victim's blood
- two (2) gray top tubes of the victim's blood
- one container of urine
- Please refer to Guidelines for Submission of Toxicology Evidence (Section 9.2) for more specific instructions.

8.1.8. Homicide

8.1.8.1. Submit all probative evidence.

8.1.8.2. Submit either blood (in a purple capped tube) or saliva (Bode Buccal Collector) from the suspect(s).

8.1.9. Hair Examinations

In cases where a hair comparison is deemed necessary please refer to Guidelines for Submission of Trace Evidence (Section 10.0) for instructions. *"Trace Evidence"* should be selected as analysis requested on the *"Lab Submission"* tab for each item requiring Trace analysis.

8.2. Specimen Collection

8.2.1. Blood

A minimum of 5cc of whole blood is to be collected into a purple capped tube using the venipuncture technique. The tube must be labeled with the name of the donor. The sample should be refrigerated immediately following collection and submitted to the Laboratory.

8.2.2. Saliva

Samples are to be collected onto a Bode Buccal Collector, air-dried, and labeled with the name of the donor. The collector can then be placed in an appropriately labeled, sealed envelope and stored at room temperature.

8.3. Handling of Evidence

8.3.1. Universal precautions should be used when handling evidence. Gloves certified for chemical and/or medical use should be used. An effort should be made not to handle areas that are to be tested.

8.3.2. All evidence must be thoroughly air-dried before final packaging. Exceptions are whole blood samples collected in vacutainer tubes.

8.3.3. Items from the victim(s) and suspect(s) need to be handled separately, by either time or space when possible in order to avoid evidence transfers or contamination.

8.4. Packaging of Evidence

8.4.1. Safety Concerns

8.4.1.1. The outermost package of a submission containing biohazardous material must be marked "BIOHAZARD".

8.4.1.2. All sharp objects must be packaged in sharps approved containers and be marked "SHARPS".

NOTE: If the approved "sharps" container does not meet the minimum packaging requirement of 4"x 9" the approved "sharps" container must be packaged in an additional envelope or paper bag that does meet the minimum requirements.

8.4.1.3. Please refer to Appendix 15.1 for specific instructions concerning the packaging and transportation of biohazardous materials.

8.4.2. General Packaging and Labeling

8.4.2.1. Evidence should be packaged in breathable paper containers. Plastic, glass, or other airtight containers are not acceptable. Plastic *sharps packaging* tubes are not considered airtight containers and therefore are acceptable. Exceptions are whole blood samples in vacutainer tubes, trace evidence, and morgue tissues.

8.4.2.2. Evidence should be packaged such that only a single item is contained within each sealed container. This container should be labeled as to its contents and the source (e.g., John Doe, Suspect - shirt). Additional information that may be useful on the container would include Agency Name and Incident Number.

8.4.2.3. Evidence from the victim(s) and the suspect(s) may not be packaged together unless separated by a sealed physical barrier.

8.4.2.4. Convenience packaging can be used to contain and transport multiple smaller sealed containers. All *convenience packages* should be marked as to their contents and should **not** be sealed.

8.4.2.5. When complete packaging of an item is impossible, the area to be examined and tested should be covered with breathable (not airtight) paper so as to minimize evidence loss and contamination.

8.4.3. Condoms

In cases where condoms have been recovered, any liquid contents contained within the condom should be removed and placed onto a sterile cloth swatch or sterile swabs. The swatch and/or swabs should be air-dried and packaged separately from the condom in breathable paper.

8.5. Pittsburgh Police Submissions

8.5.1. The Pittsburgh Police Mobile Crime Unit personnel are responsible for processing any firearm that may require Touch DNA collection.

8.5.1.1. The swabbings must be clearly identified as to which portion or portions of the firearm the collections were taken from. The outermost packaging of the swabbings **MUST** be labeled with and the prelog item description(s) **MUST** contain the location from which the swabbings were taken.

8.5.2. The Touch DNA firearm swabbings should be submitted to the Laboratory independent of the firearm submission.

♦END♦

9. GUIDELINES FOR SUBMISSION TO TOXICOLOGY

9. GUIDELINES FOR SUBMISSION OF TOXICOLOGY

9.1. Driving Under the Influence of Alcohol (DUI) and Driving Under the Influence of Drugs (DUID)

9.1.1. Prelog Test Requisition

9.1.1.1. To ensure the proper testing is performed, begin by completing the Toxicology DUI/DUID submittal form (EV.3F). This form must then be submitted with the evidence.

9.1.1.2. Choose the "Offense Type: by picking "Driving Under the Influence" from the drop down menu on the "Case Info" tab.

9.1.1.3. The appropriate "Case Type" should then be selected on the "Case Info".

9.1.1.3.1. *"DFSA"* should be selected as the *"Case Type"* on the *"Case Info"* tab for Drug Facilitated Sexual Assault cases. The Sexual Assault form (EV.2F) should also be completed and submitted to the Laboratory with the evidence.

9.1.1.3.2. *"DRE"* should be selected as the *"Case Type"* on the *"Case Info"* tab for cases in which a Drug Recognition Expert was involved. Also note in the "*Case Comments"* field on the "*Case Info" tab,* the drug category that was suspected.

9.1.1.3.3. *"DUI"* should be selected as the *"Case Type"* on the *"Case Info"* tab for cases requiring a blood alcohol determination.

9.1.1.3.4. *"DUI/DUID"* should be selected as the *"Case Type"* on the *"Case Info"* tab for cases requiring a blood alcohol determination AND a drug screen.

9.1.1.3.5. *"DUID"* should be selected as the *"Case Type"* on the *"Case Info"* tab for cases requiring a drug screen ONLY. Also note in the "*Case Comments"* field on the "*Case Info" tab,* the drug(s) that were suspected.

9.1.1.4. In the "Case Comments" field on the "Case Info" tab, indicate any pertinent information or observations regarding the history such as: medication taken that day, medical conditions, time of last drink, last meal, and/or drug history (history of drug abuse, etc.). Indicate if it is a DRE case and what drug category was suspected.

9.1.1.5. On the "Names" tab, enter the Actor's name <u>exactly as it appears on the submittal form</u> (EV.3F).

9.1.1.6. When preparing to write the descriptions of the evidence items, please note the following:

9.1.1.6.1. The "Description" field must contain 3 elements: the quantity of blood tubes, the color of the blood tubes, and the name as it appears exactly on the blood tubes (including any initials or a suffix).

9.1.1.6.2. Example: Form EV.3F was filled out to show actor's name of John Jones. You have FOUR tubes of blood (2 gray, 2 green) that display the name of "Jones, John H." The description field should read "2 grey, 2 green capped tubes of blood IDBN: Jones, John H." (IDBN means Identified By Name.)

9.1.1.6.3. Please be sure to check the spelling on each tube, as spelling may differ between the tubes.

9.1.1.7. *"Toxicology"* should be selected as the *"Analysis"* on the *"Lab Submission"* tab for all case types.

9.1.2. **Specimen Collection**

9.1.2.1. Blood samples should be collected using the venipuncture technique. The disinfectant used to clean the arm should not contain ethanol, isopropanol, or any other volatile compound. Povidone iodine solutions are recommended.

9.1.2.2. It is critical that a blood sample is submitted for all DUI and DUID cases. A urine specimen will only indicate recent exposure.

9.1.2.3. If urine specimens are submitted, specimens should be collected in a plastic container designed to prevent leakage during transport. The specimens should be collected while the subject is being observed.

9.1.2.4. **Specimen Submission Requirements –** For full and complete analysis, the following quantities are preferred:

9.1.2.4.1. Alcohol Determinations –

- Two (2) 10ml gray top tubes of blood (e.g., vacutainer tube)

9.1.2.4.2. Alcohol and Drug Screens

- Two (2) 10ml gray top tubes of blood
- Two (2) 10ml green top tubes of blood

9.1.2.4.3. Alcohol and or Drug Screens in Homicide by Vehicle Cases

- Two (2) 10ml gray top tubes of blood
- Two (2) 10ml green top tubes of blood
- One (1) plastic container of urine

9.1.3. **Labeling**

Use water resistant ink when labeling specimens. Each specimen label must include:

- The name of the person the specimen was collected from.

Each specimen label should include:

- The specimen type if it is not blood or urine (i.e. serum or plasma)
- The date and time specimen was obtained.

9.1.4. **Preservation/Packaging**

9.1.4.1. Refrigeration is recommended prior to delivery of samples. Samples should be submitted as soon as possible after collection.

9.1.4.2. Submitted samples need to be individually labeled, closed, and sealed in tamper resistant packaging.

9.1.4.3. The outermost package of submissions containing biohazardous material must be marked "BIOHAZARD".

9.1.4.4. Please refer to Appendix 15.1 for specific instructions concerning the packaging and transportation of biohazardous materials.

9.2. Drug Facilitated Sexual Assaults (DFSA)

9.2.1. *"DFSA"* should be selected as the *"Case Type"* on the *"Case Info"* tab for Drug Facilitated Sexual Assault cases. The Sexual Assault form (EV.2F) should also be completed and submitted to the lab with the evidence. Line 13 of the form must be completed.

9.2.2. **Specimen Collection**

9.2.2.1. If the drugging occurred within the past 24 hours collect:

- Two (2) 10cc gray top tubes of blood
- Two (2) 10cc green top tubes of blood
- One (1) container of urine

9.2.2.2. If the drugging occurred more than 24 hours ago, collect a urine specimen only.

9.2.3. **Labeling**

Specimens must be labeled with the victim's name, type of specimen, and the date and time of collection.

9.2.4. **Preservation/Packaging**

9.2.4.1. Refrigeration is recommended prior to submission.

9.2.4.2. Submitted samples need to be individually labeled, closed, and sealed in tamper-resistant packaging.

9.2.4.3. The outermost package of submissions containing biohazardous material must be marked "BIOHAZARD".

9.2.4.4. Please refer to Appendix 15.1 for specific instructions concerning the packaging and transportation of biohazardous materials.

NOTE: The blood and urine specimens submitted for DFSA testing (Toxicology) should not be packaged in the sexual assault kits (Serology). They should be packaged separate from the sexual assault kit and submitted as a different item.

9.3. Post Mortem Cases

9.3.1. Specimen Collection

9.3.1.1. Heart Blood

- Five (5) 10ml gray top tubes

9.3.1.2. Femoral Blood

- Two (2) 10ml gray top tubes

9.3.1.3. Ante mortem

- Blood - Total amount available
- Urine - Total amount available

9.3.1.4. Urine

- One (1) 10ml yellow top tube

9.3.1.5. Bile

- One (1) 10ml red top tube

9.3.1.6. Liver

- 20 grams

9.3.1.7. Vitreous (Eye) Fluid

- Total Amount
- One (1) 3 ml red top tube

9.3.1.8. Stomach Contents

- Total Amount

  Submit in cases of suspected overdoses. Package intact tablets separately and identify as being found in stomach contents.

9.3.1.9. Lung

- 10 grams

Submit in suspected inhalant, solvent abuse, or methane deaths. Containers should be air tight and half full (use 40ml volatile organic compound vials with a Teflon seal). All specimens should be collected in leak free containers. Tissue specimens should be double bagged to prevent leakage. Submit specimens directly to the Trace section.

9.3.2. **Labeling**

9.3.2.1. All specimens must be labeled with autopsy number, name of deceased, date, and type of specimen.

9.3.2.2. The Pathologist/Autopsy Technician must initial every label as verification that the specimens are properly labeled.

9.3.2.3. Each blood specimen must be labeled as to the anatomic site of origin (i.e., heart blood, chest blood).

9.3.3. **Preservation/Packaging**

9.3.3.1. Refrigerate samples prior to submission.

9.3.3.2. The outermost package of submissions containing biohazardous materials must be marked "BIOHAZARD".

9.3.3.3. Please refer to Appendix 15.1 for specific instructions concerning the packaging and transportation of biohazardous materials.

9.3.4. **MEIMS Test Requisition (INTERNAL USE ONLY)**

9.3.4.1. The task type must be selected in the Medical Examiner Information Management System prior to submission (MEIMS).

9.3.4.2. Indicate approximate volume of each fluid submitted.

9.3.4.3. Designate the appropriate priority for each case (Level 1, 2, or 3) in MEIMS.

9.3.4.4. The Toxicology Post Mortem Case Order form must be completed and submitted with specimens.

9.4. Evidence Storage

9.4.1. DUI, DUID, and DFSA blood samples are routinely retained for a minimum of one year after the date of receipt. Urine specimens from DUI and DUID investigations are retained for three (3) months. DFSA urine specimens are retained for one year.

9.4.2. Post mortem tissues and fluids are routinely retained for one (1) year after the date of autopsy.

9.4.3. Thereafter, specimens will be discarded unless prior arrangements are made.

♦END♦

10. GUIDELINES FOR SUBMISSION TO TRACE

10. GUIDELINES FOR SUBMISSION TO TRACE EVIDENCE

10.1. Minimum and Prelog Requirements for Submission of Evidence

10.1.1. The following guidelines should be adequate for most trace evidence submissions. However, should there be questions regarding a specific exhibit and how it should be collected, please contact the Trace Evidence Section.

10.1.2. For items involving ignitable liquids that also need latent print examination, indicate which is of greater importance to the investigation: the detection of latent prints or ignitable liquids, in the *"Analysis Comments"* field on the "*Lab Submission"* tab. In some instances, it may be necessary to jeopardize the recovery of one for the other during examination.

10.1.3. For clothing items to be examined for the presence of primer gunshot residue (not to include distance analysis), indicate, based on the facts of the incident, which specific areas of clothing (e. g., right front pocket, right cuff, etc.) should be sampled in the "*Analysis Comments"* field on the "*Lab Submission"* tab. No more than 3 areas on one garment will be sampled.

10.1.4. In any circumstance where both primer residue and distance analyses are requested, indicate *"GSR"* in the *"Analysis Comments"* field on the "*Lab Submission"* tab. Remember to select both "*Trace*" and *"Firearms and Toolmarks"* as the *"Analysis"* on the *"Lab Submission"* tab.

10.1.5. Remember to select "*Latent Prints"* in the *"Analysis Selection"* section on the *"Lab Submission"* tab for items requiring latent print examination.

10.1.6. "*Trace Evidence"* should be selected as the *"Analysis"* on the *"Lab Submission"* tab for all case types.

10.2. Arson

10.2.1. Fire Debris Samples

10.2.1.1. Fire debris samples must be submitted in five-gallon, three and one half-gallon, two and one half-gallon, one-gallon, one-quart, and/or one-pint metal cans with friction fit lids. These cans must only be filled ½ to ¾ full.

10.2.1.2. Fire debris samples packaged in plastic bags, plastic containers, paper bags, envelopes and cardboard boxes will **not** be accepted into evidence.

10.2.1.3. Soil and vegetative debris samples must be stored in a freezer prior to submission at the Laboratory. It is the responsibility of the Submitting Agency to inform the Evidence Specialists that a frozen soil sample is being submitted so as to ensure that it will be properly stored in a freezer at the Laboratory.

10.2.2. Preserving Liquid Samples and Containers

10.2.2.1. If a container with a suspected ignitable liquid is found at a fire scene, do not handle it with bare hands or rub those areas which may bear latent prints, such as the underside of the handle.

10.2.2.2. If an intact, labeled, manufacturer's container is found to contain a liquid, submit the entire sealed container.

10.2.2.3. If an intact jug, can, or bottle (not a labeled manufacturer's container) is found to contain a liquid, the following steps should be taken to preserve a small portion of the liquid. Transfer approximately 2 milliliters (½ teaspoon) of the liquid to a glass vial with a Teflon-lined cap. Secure the cap with tape. Submit only the glass vials of sample(s) that have been removed to the Trace Evidence Section .

10.2.2.3.1. If a water layer is present, be sure to collect samples of both the ignitable liquid and water layer.

10.2.2.3.2. If the container mentioned above is to be submitted for latent prints, carefully remove the remainder of the liquid and discard. Allow the container to "air out" before packaging it in a paper bag.

10.2.2.3.3. Large quantities of liquid packaged in any type of "generic" container, including all types of gasoline containers, will **not** be accepted into evidence.

10.2.2.4. It is possible that a seemingly empty container has enough residual liquid or vapors for analysis to be performed. The openings of empty containers found at the scene must be sealed using a cap or cork stopper to prevent any vapors or residual liquid from escaping. Containers are not properly sealed if paper has been inserted into the opening or the opening has been sealed with tape. If the container cannot be properly sealed then the container and any of its fragments should be packaged in an airtight can.

10.2.2.5. Empty containers that are not properly sealed will **not** be accepted for ignitable liquid analysis.

10.2.2.6. Empty containers that are not sealed and have been adequately "aired out" may be submitted in paper bags for latent print examination.

10.2.3. Comparison Samples

10.2.3.1. A comparison sample should be submitted when it is suspected that an ignitable liquid or petroleum derived materials are inherent to the fire scene. Comparison samples are sometimes necessary for the proper examination of debris samples, but are not typically required for the routine identification of common ignitable liquids. Always submit comparison samples of adsorbent material (e.g., gauze pads) used in the collection of evidence.

10.2.4. Clothing Samples

10.2.4.1. The best items to collect are the outer layers of clothing.

10.2.4.2. Each item of clothing **must** be packaged and submitted in its own sealed metal can.

10.2.4.3. Clothing packaged in plastic bags, plastic containers, paper bags, paper envelopes and cardboard boxes will not be accepted into evidence.

10.2.4.4. Items recovered from a fire scene should not be packaged or transported in the same container with clothing items from a suspect.

10.2.4.5. If clothing is being submitted from both the victim and the suspect in a given case, **do not** package or transport these items of clothing in the same container.

10.2.4.6. If the above guidelines are not followed, these articles of clothing will not be accepted into evidence.

10.2.5. If an agency has access to an accelerant detection canine, it is strongly recommended that the canine be allowed to sniff out each article of clothing. If the canine alerts to an area of the clothing, remove that section of the clothing and place it into an unlined metal can of appropriate size.

10.2.6. Latent Print Evidence

10.2.6.1. On occasion, arson items will need to be examined for the presence of ignitable liquids and latent prints. It is important to inform the Evidence Specialists which items of evidence need to be printed. These items must have the outside containers clearly marked with the words **"LATENT PRINTS."**

10.2.6.2. *"Latent Prints"* should be selected as analysis requested on the "*Lab Submission"* tab for each item requiring latent print analysis.

10.2.6.3. It should also be noted in the "*Analysis Comments"* field on the "*Lab Submission"* tab which is of greater importance to the investigation: the detection of latent prints or ignitable liquids. In some instances, it may be necessary to jeopardize the recovery of one for the other during examination.

10.2.7. Biological Samples

10.2.7.1. Biological samples, primarily tissue samples, must be submitted in sealed metal cans or 40 mL glass vials with Teflon-lined septa. These cans or vials must only be filled ½ to ¾ full. Each tissue sample must be packaged separately and labeled with a "*Biohazard*" warning.

10.2.7.2. Biological samples must be stored in a refrigerator prior to submission at the Laboratory. It is the responsibility of the Submitting Agency to inform the Evidence Specialists that a biological sample is being submitted so as to ensure that it will be properly stored in a refrigerator at the Laboratory. Also, Evidence Specialists should be told that the sample is for the Trace Section and NOT for Toxicology.

10.2.7.3. Biological samples packaged in plastic bags, plastic containers, paper bags, paper envelopes and cardboard boxes will **not** be accepted into evidence.

10.2.8. Solvent Abuse Samples

10.2.8.1. Cloth Items

10.2.8.1.1. Cloth items submitted from solvent abuse cases must be packaged in metal cans with friction lids. Items packaged in plastic bags, plastic containers, paper bags, envelopes, and boxes will **not** be accepted into evidence.

10.2.8.2. Solvent Abuse Products

10.2.8.2.1. If a liquid sample from a suspected solvent abuse case is recovered in a labeled manufacturer's container, it should be submitted in that sealed container. This includes liquid and aerosol products.

10.2.8.2.2. Liquids not contained in a labeled manufacturer's container should be transferred to a glass vial with a Teflon-lined cap. This will prevent the solvent from evaporating or leaking during transport.

10.2.8.2.3. If multiple aerosol canisters were used, submit all of the canisters. Do **NOT** test to see which are empty.

10.2.8.2.4. Solvent abuse products should **NOT** be packaged or transported in the same container or packaging as cloth items from the suspect.

10.3. Explosives

10.3.1. Explosives, Improvised Explosive Devices, Fireworks, and Post-Blast Debris

10.3.1.1. Explosive samples (powders, fireworks or pyrotechnic devices, and post-blast debris) may be packaged in sealed plastic bags or sealed paper bags. Explosive related items that are too large for submission to the Laboratory may be sampled with a "sample collection stub." Please contact the Trace Evidence Section for instructions on the purchase and use of "sample collection stubs." All explosives and related items must be packaged and sealed as individual items.

10.3.1.2. All improvised explosive devices to be submitted must first be rendered safe by an Explosive Ordinance Disposal unit. If a device is not rendered safe it will not be accepted.

10.3.2. Latent Print Evidence

10.3.2.1. On occasion, improvised explosive devices may need to be examined for latent prints. It is important to inform the Evidence Specialists which items of evidence need to be printed. These items must have the outside packaging clearly marked with the words **"LATENT PRINTS."**

10.3.2.2. *"Latent Prints"* should be selected as the *"Analysis"* section in addition to "*Trace Evidence*" on the "*Lab Submission"* tab for each item requiring Latent Prints analysis.

10.4. Hair and Fiber

10.4.1. Loss and Contamination of Hair and Fiber Evidence

Collect and package hair and fiber evidence as soon as possible to prevent loss or contamination of the evidence. This type of evidence usually involves physical contact of some sort. Take precautions to prevent contamination of hair and fiber evidence by following these guidelines.

10.4.1.1. Do not interview the victim(s) and suspect(s) in the same area.

10.4.1.2. Keep the crime scene clear of unnecessary personnel.

10.4.1.3. The suspect should never be brought back to the crime scene prior to recovering hair and fiber evidence.

10.4.1.4. Officers who have had contact with the suspect should not be allowed to participate in the search of the crime scene.

10.4.1.5. Clothing items from the victim and the suspect should not be allowed to rest on the same surface before packaging.

10.4.1.6. Each item of evidence should be packaged separately as soon as possible.

10.4.2. Collection, Preservation, and Packaging of Hair and Fiber Evidence

10.4.2.1. Suspect and victim clothing are to be collected and packaged **separately** in sealed brown paper bags. The size of the bag should correspond to the size of the object. Vacuumed debris and tape lifts collected from a crime scene may also be submitted. Follow accepted collection procedures**.**

10.4.2.1.1. If hairs or fibers <u>are</u> visible and firmly attached to an inanimate object, leave them intact. Photograph and document the item before it is packaged and transported to the Laboratory.

10.4.2.1.2. If hairs or fibers <u>are</u> visible and <u>not</u> firmly attached, or if an object is too large to transport to the Laboratory, photograph and document the item. Remove the evidence with clean forceps/tweezers and package for transport to the Laboratory.

10.4.2.2. To minimize loss of hair and fiber evidence, avoid over-handling garments. Clothing should be carefully rolled up in paper if available and

placed in paper bags. Avoid disturbing materials adhering to the clothing.

10.4.2.3. Do not submit wet bloodstained items. Air dry these items (lying flat, never hanging) on clean white paper prior to submission. Once an object is dry, roll it up in the paper it was dried on and place into a sealed paper bag for submission. Blood stained items must be labeled "BIOHAZARD".

10.4.2.4. If fiber evidence exists in a suspect's head hair, carefully comb the hair over white paper with a clean comb. Fold the paper with the comb inside and seal.

10.4.2.5. Vacuumed debris from a crime scene or vehicle should be packaged in sealed paper bags or envelopes with all seams taped to prevent loss of debris.

10.4.2.6. Tape lifts should be adhered to a clean polyethylene (plastic) bag or other appropriate material before packaging in a sealed envelope or paper bag. An investigating officer who has experience with tape lifting and documentation should collect the trace evidence from vehicles and crime scenes.

10.4.3. Comparison Samples

10.4.3.1. Standards or known samples, such as carpet standards and fabric samples, must be collected for comparison to questioned fiber exhibits. This includes vacuumed debris and tape lifts. A standard sample about the size of a quarter will usually suffice. Standards should be packaged separately by source in sealed paper bags or envelopes.

10.4.3.2. Standards or known samples must be collected for comparison to questioned hair exhibits. A minimum of twenty-five (25) pulled head and/or pubic hairs must be submitted from the suspect, the victim, and from any other involved parties. **Cut hairs are not acceptable**. An effort should be made to randomly sample the entire area. Do not pull all twenty-five (25) hairs from the same location. For example, sample from the front, back, top, and sides of head. The hair standards should be packaged separately by source (i.e., victim, suspect) in a sealed envelope.

10.4.3.3. If the general request is made for a "hair examination" (with respect to race and origin) or "fiber examination" (with respect to physical and chemical properties), no comparison samples are required.

10.5. Glass

10.5.1. Glass Direction of Breaking: Collection and Packaging

10.5.1.1. Laboratory examination of recovered shards of glass may reveal the direction of breaking. This information may be of value in crimes such as burglaries and shootings.

10.5.1.2. Glass found in a broken window should be secured with tape to facilitate reconstruction. (Tape should not be used if latent print examination is requested.) The pane should be marked as to inside, outside, top, and bottom. The pane should be placed in a cardboard box or wrapped in paper then sealed to prevent further breakage.

10.5.1.3. Submit **all** available glass from the inside and outside areas near the window so that the pieces can be fitted together to determine a point of impact. These pieces should be packaged separately from the pane and labeled as to where they were recovered. The pieces can be packaged in cardboard boxes or cans to prevent injury from sharp glass. Do **not** use glass containers.

10.5.2. Glass for Comparison: Collection and Packaging

10.5.2.1. Glass fragments from a suspect's clothing can be compared to glass from a crime scene. Carefully fold items of clothing and place into paper bags. Double bag if necessary. The size of the packaging should correspond to the size of the item.

10.5.2.2. Submit approximately one (1) tablespoon of broken object (e.g., window). If multiple glass items were broken at the scene, collect samples of each glass item. Package the sample from each item separately in a sealed box or can to avoid injury. Label each sample.

10.5.2.3. Submit suspect clothing, shoes, and any instrument that may have been used to break the glass. Also check the suspect's hair and wounds for glass fragments. Package these items separately in sealed paper bags. If the glass is sharp, submit in boxes or cans to prevent injury. Blood stained objects must be labeled "BIOHAZARD".

10.5.2.4. Do not submit wet bloodstained items. Air dry these items (lying flat, never hanging) on clean white paper prior to submission. Once an object is dry, roll it up in the paper it was dried on and place into a sealed paper bag for submission. Avoid over-handling the clothing to minimize loss of sample. Blood stained items must be labeled "BIOHAZARD".

10.5.3. Comparison Samples

10.5.3.1. Standards or known samples such as glass fragments from a damaged car window must be collected from the crime scene. Standards should be packaged in sealed boxes or cans to prevent injury. A standard sample of approximately a tablespoon will usually suffice.

10.5.3.2. Standards or comparison samples must be submitted with questioned exhibits for that case to be accepted into the Laboratory.

10.5.4. Latent Print Evidence

10.5.4.1. On occasion, glass items may need to be examined for latent prints. It is important to inform the Evidence Specialists which items of evidence need to be printed. These items must have the outside containers clearly marked with the words **"LATENT PRINTS."**

10.5.4.2. *"Latent Prints"* should be selected in addition to "Trace Evidence" in fromthe *"Analysis Selection"* section on the *"Lab Submission"* tab for each item requiring Latent Prints analysis.

10.6. Paint

10.6.1. Collection and Packaging of Paint Samples

10.6.1.1. Laboratory examination of questioned and known paint samples is based on a comparison of exhibits submitted. Therefore it is important to collect intact paint chips containing all existing layers and not shavings.

10.6.1.2. Submit all paint samples recovered from the scene. If an object is too large for submission, such as a vehicle, obtain a known paint sample by cutting down through all the paint layers to the object's base. Cuttings are typically done using a clean razor blade. Shavings and scrapings from the surface are insufficient for comparison.

10.6.1.3. Obtain questioned samples from the damaged areas of a vehicle. Collect and package samples from each damaged area separately. Package the samples and the razor blade in folded paper or envelopes with sealed seams to prevent loss of evidence. Place the items in a second sealed envelope to ensure sample will not be lost. Label the exterior packaging "**sharp**" when a razor blade is included with the sample.

10.6.1.4. Submit clothing items that may have existing paint evidence in sealed paper bags.

10.6.1.5. Do not submit wet blood stained items. Air dry these items (lying flat, never hanging) on clean white paper prior to submission. Once an object is dry, roll it up in the paper it was dried on and place into a sealed paper bag for submission. Avoid over-handling the clothing to minimize loss of sample. Blood stained items must be labeled as a biological hazard.

10.6.1.6. Liquid paint samples should be submitted in their original containers. Seal the container and place into a paper bag with description of the item. If that is not possible, pour a sample of the paint into airtight cans or vials.

10.6.1.7. Burglary tools such as screw drivers and crowbars may retain paint traces. Whenever possible, submit the entire tool in a sealed box. Placing a piece of paper over the area containing the paint and sealing on all sides should protect the area with the paint transfer. If the tool needs to be submitted to the Firearms/Toolmark section for a toolmark comparison, notify the Evidence Specialists to ensure that the item goes to the Trace Section for processing first.

10.6.2. Comparison Samples

10.6.2.1. Standards or known samples, such as paint fragments from a damaged car or a burglarized garage door, must be collected from the crime scene. The standards must be removed from an undamaged spot near the questioned transfer area and represent an area of at least ¼" by ¼" to provide sufficient material for Laboratory examination. Standards should be packaged in folded paper packets and a second sealed envelope to prevent loss of sample.

10.6.2.2. Standards or comparison samples must be submitted with questioned exhibits for that case to be accepted into the Laboratory.

10.7. Miscellaneous Submissions

Miscellaneous samples are defined as items that do not fall under the categories of arson, explosives, hairs, fibers, glass, and paint. These items can include but are not limited to the following:

10.7.1. Analysis for oils and greases

10.7.1.1. Oils and other lubricants should be submitted in their manufacturer's packaging if possible then placed in plastic bags or metal cans. If it is not possible to submit the manufacturer's packaging, a sample may be removed and submitted in a glass vial or metal can.

10.7.1.2. Clothing with oils or lubricants can be packaged in sealed paper bags. If the clothing is soaked with an oil, place the item in a metal can.

10.7.1.3. Comparison samples should be collected from the suspect object, such as the undercarriage of a suspect's vehicle, where possible disruption is observed.

10.7.2. Physical Matches

10.7.2.1. A physical match between two (2) pieces of evidence can establish that two (2) items were once joined as one. Physical matches are conclusive on rigid items such as glass, paint, wood, metal, and plastics. Cloth, tape, threads, and soft plastics are less conclusive when trying to establish a match on these objects since stress often causes a change in shape.

10.7.2.2. Physical match items can be submitted in sealed paper bags. Sharp items should be submitted in metal cans or sealed boxes. Blood stained items must be dried first then packaged and labeled as a biological hazard.

10.7.3. Tape Comparison

10.7.3.1. A torn or cut end of tape recovered from a crime scene or victim may be physically matched to a roll of tape recovered from a suspect. In the absence of a physical match, questioned and known tapes may be associated on the basis of common physical construction, color, and fiber composition.

10.7.3.2. Tape recovered from a crime scene or victim should be placed onto a clear document page protector or a heavyweight polyethylene bag. Ends cut by investigators should be clearly labeled. The whole unit should then be submitted in a sealed paper bag or box. Rolls of tape to be used for comparison samples can be packaged in sealed paper bags. Blood stained items must be dried first then packaged and labeled as a biological hazard.

10.7.3.3. On occasion, tape items may need to be examined for latent prints. It is important to inform the Evidence Specialists which items of evidence need to be printed. These items must have the outside packaging clearly marked with the words **"LATENT PRINTS."**

10.7.3.4. *"Latent Prints"* should be selected in addition to *"Trace Evidence"* from the *"Analysis Selection"* section on the *"Lab Submission"* tab for each item requiring Latent Prints analysis.

10.7.4. Soil Comparison

10.7.4.1. Soil may contain unusual debris or minerals that can be an unexpected source of physical evidence. Although it is not feasible to pinpoint the origin of a soil source, it may be possible to relate the soil to an area of occurrence.

10.7.4.2. A tablespoon of questioned soil is sufficient for comparison. A representative comparison sample of at least three (3) tablespoons of soil should be submitted from each area of interest at a crime scene. For example, soil from a suspect's shoe would be collected and submitted as a questioned sample. The comparison sample would come from the crime scene (where he/she committed the crime) in close proximity to where a shoe print existed.

10.7.4.3. Submit dried soil samples in sealed paper bags or envelopes.

10.7.5. Comparison Samples

10.7.5.1. Comparison samples for miscellaneous items (with the exception of physical matches) must be submitted with questioned exhibits for that case to be accepted into the Laboratory.

10.8. Gunshot Residue

10.8.1. Gunshot Residue Kit

10.8.1.1. Gunshot Residue Kits (also referred to as "hand kits" or "carbon stub kits") must be submitted in the sealed envelope provided. The provided information sheet must be filled out as completely as possible and submitted with pre-log request for forensic analysis.

10.8.1.2. If a victim's hands are bagged and stubbed at a later date, the bags used to cover the victim's hands should be submitted as evidence.

10.8.1.3. Gunshot Residue Kits collected from living person's hands more than 24 hours following the incident will not be accepted, unless conferencing between the Submitting Agency and a member of the Trace section deems the evidence viable.

10.8.1.4. Gunshot Residue Kits can be collected from a deceased person's hands indefinitely, especially if the victim is located indoors. Judgment should be used to determine evidence viability if the victim is outdoors, and therefore exposed to the elements.

10.8.1.5. Stubs from Gunshot Residue Kits can be used for collection of suspected gunshot residue from other areas of the body, such as the face, if a long

arm is the suspected weapon involved in the incident. Clearly indicate the area sampled on the stub's exterior label. The initial label should be struck out and the area sampled written in its place.

10.8.1.6. Primer gunshot residue (P-GSR) kits collected from individuals sustaining gunshot wounds (GSW) will no longer be *routinely* analyzed by the Forensic Laboratory. If it is determined that a P-GSR kit from an individual with a GSW, needs to be analyzed, contact the Trace Section of the Forensic Laboratory to discuss the *possibility* of analysis.

10.8.2. Clothing/Fabric Samples

10.8.2.1. It is important to distinguish what analysis is being requested for clothing related to a shooting incident.

10.8.2.1.1. GSR or Primer Residue may be located on actor's clothing and these items should be submitted to the Trace section.

10.8.2.1.2. Gunpowder residue may also exist on a victim's clothing. The residue on a victim's clothing may be used to establish the distance between the victim and the shooter. Items with this request should be submitted to the Firearms and Toolmarks Section. If distance determination is required *"Firearms"* must be selected in the *"Analysis Selection"* section on the "*Lab Submission"* tab for each item distance determination is requested for.

10.8.2.1.3. In any circumstance where both primer residue and distance analyses are requested, indicate "GSR" on packaging and in the *"Analysis Comments"* on the" *Lab Submission*" tab. Also ensure both section assignments are selected for the correct item.

NOTE: Evidence examined in the Firearms Section prior to the Trace Section examination is no longer suitable for primer residue analysis.

10.8.2.2. Items of clothing should be packaged separately. Each item should be loosely folded on itself inside clean paper when possible, placed in an appropriately sized paper bag, and sealed prior to submission.

10.8.2.3. Depending on the weave of the fabric, clothing may retain primer residue for extended periods of time. Therefore, clothing items may be acceptable for submission indefinitely. Judgment should be used to determine evidence viability if the clothing has been laundered.

10.8.2.4. Information regarding what areas of the clothing are possible sources for primer residue (e.g., right front pocket, right cuff, etc.) based on facts of the incident should be included in the *"Analysis Comments"* field on the" *Lab Submission*" tab. More than three areas on the garment cannot be sampled, so be as specific as possible.

10.8.3. General Use Stubs

10.8.3.1. Individual carbon stubs can be utilized to collect suspected GSR primer residue from any surface. Clean gloves should be used during the collection process.

10.8.3.2. Mark the stub labels with the location from which the sample was obtained, the collector's initials, the date, and the time of collection.

10.8.3.3. Place individual stubs in a paper bag or envelope, separate from any form of firearm evidence.

♦END♦

11. GUIDELINES FOR SUBMISSION OF ENVIRONMENTAL CHEMISTRY

11.1 Air Samples

11.2 Water Samples

11.3 Food Samples

11.4 Samples for Methane

11.5 Dustfall Cans

11.6 Samples for Lead Testing by Atomic Absorption Spectrophotometry

11.7 Other Samples

11.8 Submittal Forms – Environmental Chemistry Section

11. GUIDELINES FOR SUBMISSION TO ENVIRONMENTAL CHEMISTRY

11.1. Air Samples

11.1.1. Paper Filters

11.1.1.1. Receipt of $PM_{2.5}$ Filters (Allegheny County)

All filters must be transported to the Laboratory in coolers. The temperature in the coolers must be maintained between 4 - 25°C. The transport temperature will be verified by using a min/max thermometer. Field Personnel will record the min/max temperature (reference document) during transport at the time of delivery to the Laboratory.

11.1.1.2. Receipt of $PM_{2.5}$ Filters (State of Delaware)

All filters must be transported to the Laboratory via UPS in Styrofoam coolers with ice packs and a min/max thermometer inside. The temperature in the coolers must be maintained between 4 - 25°C. The transport temperature will be verified by using a min/max thermometer. Lab Personnel will record the min/max temperature (reference document) during transport at the time of delivery to the

11.1.1.3. Receipt of PM_{10} Filters

All filters should be transported to the Laboratory in envelopes. The envelopes should be labeled with the filter number, station number and sample date.

11.1.2. Charcoal Tubes

All filters must be transported to the Laboratory in coolers. The temperature in the coolers must be maintained between 4 - 25°C.

11.1.3. Tedlar Bags

11.1.3.1. Tedlar bags with fittings lubricated with a silicone-based grease are *not* suitable for analysis on the Hapsite. Please inquire to the manufacturer before purchasing.

11.1.3.1.1. Tedlar bag samples should be analyzed within two (2) days of submission. Please contact the Laboratory prior to collecting them in order to expedite analysis.

11.1.3.1.2. A zero air blank sample should be submitted with each group of samples.

11.1.3.1.3. If a comparison source sample is available, please submit that with the questioned sample.

11.2 Water Samples

Water samples should be collected in plastic or borosilicate glass bottles and refrigerated at 4°C to minimize microbiological degradation. No preservation of the sample is required unless otherwise specified below.

11.2.1 Nitrate in Water

No preservation of the sample is required if the sample is chlorinated. If the samples are non-chlorinated, then concentrated sulfuric acid is added to bring the pH to <2.

11.2.2 Total Dissolved Solids

Sample should be brought in on ice at 4°C or below and stored in plastic or borosilicate glass bottles in the refrigerator at or below 4°C.

11.2.3 Elements in Water by Atomic Absorption Spectroscopy

Samples are collected and stored in acid rinsed plastic bottles and acidified to a pH <2 in the field with concentrated nitric acid (A.C.S. grade or equivalent). Mercury samples must also be refrigerated at 4°C in the field; for other elements, refrigeration is recommended, but not necessary.

One liter of sample is required for elemental analysis; however, where quantity of sample is limited by supply, a lesser volume may be acceptable on a case by case basis.

11.3 Food Samples

11.3.1 Food samples should be submitted in their original manufacturer or service container whenever possible and packaged in a manner to preserve the integrity of the sample.

11.3.2 A control sample must be included.

11.3.3 All food samples will be discarded two (2) weeks after the Laboratory report issue date unless otherwise arranged with the Submitting Agent.

11.4 Samples for Methane

11.4.1 Lung, blood or water samples should be submitted in 40-mL VOC vials with Teflon lined caps ONLY.

11.4.2 The vials should not be more than ½ to ¾ full. There needs to be space at the top of the vials.

11.4.3 Lung and blood samples should be stored frozen prior to analysis.

11.4.4 Samples should be submitted promptly.

11.5 Dust Fall Cans

11.5.1 Dustfall samples should be submitted in capped dustfall cans. The cans should be labeled with the station name, number, the beginning date of exposure in the field, and the end date of exposure in the field.

11.6 Samples for Lead Testing by Atomic Absorption Spectrophotometry

11.6.1 Dust wipes

11.6.1.1 Dust wipes should be submitted in capped plastic 50 mL centrifuge tubes. In the absence of 50 mL centrifuge tubes, samples may be submitted in sealable plastic bags (e.g., whirl-pak bags, zip-loc bags, etc.)

11.6.1.2 All submissions must be clearly labeled with the location address and the dimensions of the area wiped (such as 8" X 10"). If multiple areas from a single location are submitted, labels should indicate the specific location sampled (e.g., living room, kitchen, etc.).

11.6.1.3 It should be indicated if the location sampled is from a floor, window sill or window troughs, as the lead action levels differ depending on the origin of the sample. This information may be included on the submittal sheet.

11.6.2 Soil

11.6.2.1 Soil samples should be submitted in capped plastic 50 mL centrifuge tubes. In the absence of 50 mL centrifuge tubes, samples may be submitted in sealable plastic bags (e.g., whirl-pak bags, zip-loc bags, etc.)

11.6.2.2 All submissions must be clearly labeled with the location address. If multiple areas from a single location are submitted, labels should indicate the specific location sampled (e.g., front yard, side yard, etc.).

11.6.2.3 Soil samples should preferably be free of stones, gravel, vegetable material, concrete, sand, and other extraneous matter. Sample weight should not exceed 100 grams.

11.6.3 Paint

11.6.3.1 Paint samples should be submitted in sealable plastic bags (e.g., whirl-pak bags, zip-loc bags, etc.).

11.6.3.2 All submissions must be clearly labeled with the location address. If multiple areas from a single location are submitted, labels should indicate the specific location sampled (e.g., bedroom, porch, basement, etc.).

11.6.3.3 Paint samples should be free of substrate (e.g., wood, concrete, plaster, etc.) It is extremely important that sufficient sample be submitted, and it is recommended that sample size be 3 grams or greater.

11.6.4 Other Samples

11.6.4.1 Other types of samples that are submitted for lead testing should be submitted in sealable plastic bags.

11.6.4.2 All submissions must be clearly labeled with the location address.

11.6.4.3 Samples should be submitted with their original packaging materials, if possible. Other information that should be submitted with the sample include information such as the sample origin (country of origin or manufacture), use of item, or other relevant information.

11.6.4.4 If there is some question as to an item's suitability for testing, field personnel should contact the Laboratory prior to submitting the item.

11.7 Other Samples

Samples, other than above, should be submitted in properly labeled packaging which preserves the integrity and prevents contamination.

11.8 Submittal Forms – Environmental Chemistry Section (EV4F)

♦END♦

12. AFTER HOURS SUBMISSION

12. AFTER HOURS SUBMISSION

12.1. Policy

The Office of the Medical Examiner Forensic Laboratory is committed to providing 24-hour evidence submission to law enforcement agencies in Allegheny County through the use of secure lockers for after hour drop-offs and 24-hour Supervisory Staff for assistance.

12.2. Procedure

12.2.1. To enter the evidence corridor, enter the municipality cipher code that was issued to your agency into the cipher pad.

NOTE: If your agency has not been issued a municipality cipher code, contact the Evidence Coordinator to request a code.

12.2.2. Choose an appropriate locker type and size for the evidence being submitted.

12.2.2.1. Refrigerated lockers are to be used for biological fluid samples (i.e., blood and urine samples). Dry biological samples do not require refrigeration.

12.2.2.2. Non-refrigerated lockers are to be used for the items not requiring refrigeration. Do not place small packages in large lockers or squeeze large packages into small lockers. The tall lockers on the left are sized for ~~long arms~~ and other large items.

12.2.2.3. Firearms should NOT be submitted in the overnight lockers.

12.2.3. Identify a locker that is available.

12.2.3.1. Refrigerated lockers (A-X) are available when the lock is vertical; do not turn the lock until evidence and appropriate forms have been placed inside the locker.

12.2.3.2. Non-refrigerated lockers (1-22) are available when the button adjacent to the locker handle is in the raised position. Do not push the locker button in until evidence and appropriate forms have been placed inside the locker.

12.2.4. If a locker is not available to fit the needs of the evidence, alert the 24 hour Supervisory Staff using the phone next to the cipher pad on the outside door of the evidence corridor.

12.2.5. More than one case can be stored in one locker. Each case must be packaged separately according to the requirements outlined in this manual.

12.2.6. Place sealed evidence, completed white copy of locker receipt(s), and Pre Log Request for Forensic Analysis document in the locker.

12.2.7. Ensure all lockers are locked. For non-refrigerated lockers, push in the button located to the left of the locker handle. For refrigerated lockers, turn the lock to the horizontal position.

NOTE: Ensure refrigerator door is securely closed prior to leaving.

12.3. Form Requirements

12.3.1. Pre log Request for Forensic Analysis

The Pre-log Request for Forensic Analysis document is generated from the Web Pre-Log application. See Section 4.

12.3.2. Evidence Locker Receipt

12.3.2.1. Locker Receipts (Form EV.5F) will be made available on site for evidence submitted via overnight drop-off.

12.3.2.2. For multiple cases in one locker, a locker receipt must be completed for each case.

12.3.2.3. Complete all lines of top portion of form. "Number of Packages Submitted" refers to the number of unique packages. Do not write in the area marked "Lab Use Only" on the bottom of the form.

12.3.2.4. Leave the white copy in the locker with the evidence. The pink copy is your receipt to take with you.

12.3.2.5. Once the evidence from the locker has been entered into the Laboratory Information Management System, a copy of the locker receipt and a copy of the Evidence Submission Form will be mailed to the Submitting Agency.

♦END♦

13.Mobile Crime Unit (MCU) Vehicle Processing Area

13. Mobile Crime Unit (MCU) Vehicle Processing Area

13.1. Policy

The Allegheny County Office of the Medical Examiner's Vehicle Processing Area is available for use by agencies to process vehicles related to an investigation. It is the preference of the Mobile Crime Unit (MCU) to process a vehicle at our facility. If your agency would like to request the MCU to process a vehicle at our facility, the following measures must be taken.

13.2. Procedure

13.2.1. Contact Allegheny County Communications (412-473-3000) and specify what services are being requested for the vehicle.

13.2.2. Allegheny County Communications will then contact the on-call personnel for the Mobile Crime Unit.

13.2.3. The MCU on-call personnel are responsible for coordinating the vehicle delivery time and release time with the requesting agency. **ACOME personnel are NOT responsible for making any arrangements with the vehicle tow service providers. It is the responsibility of the requesting agency to make all arrangements for vehicle delivery and release.**

13.2.4. If the request is being made after regular business hours and the vehicle processing area is available, the MCU on-call personnel will then contact the Supervisor on duty at the ACOME. The Supervisor and a representative from the requesting agency will need to be present when the vehicle tow service company delivers the vehicle to the Laboratory.

13.2.5. If the request is being made during regular business hours and the vehicle processing area is available, the MCU on-call personnel or a designee and a representative from the requesting agency will need to be present when the vehicle tow service company delivers the vehicle to the Laboratory.

13.3. Form and Pre-Log Requirements

13.3.1. Pre-Log Request for Forensic Analysis

13.3.1.1. The Pre-log Request for Forensic Analysis (See Section 4) is required for requests being made after regular business hours.

13.3.1.1.1. On the Names tab, include the name(s) of the actor(s) with their date(s) of birth and SID number(s).

13.3.1.1.2. A description of the vehicle, to include Make, Model, Color and VIN is to be entered on the Items tab.

13.3.1.1.3. Indicate what processing is being requested in the *"Analysis Comments"* section of the *"Laboratory Submission"* tab. If any processing of the vehicle has already been completed, indicate which processes have been completed.

13.3.1.1.4. Indicate who the vehicle will be released to, once processing has been completed, in the "*Analysis Comments*" section of the *"Laboratory Submission"* tab.

13.3.2. A receipt for evidence will be generated and given to the agency representative present.

13.4. Evidence Disposition

13.4.1. The vehicle will be processed in a timely manner by the MCU. When processing is complete, the requesting agency will be contacted and it is the responsibility of the requesting agency to arrange the release of the vehicle. The vehicle MUST BE REMOVED WITHIN 48 HOURS OF THE SUBMITTING AGENCY BEING CONTACTED.

13.4.2. The release must occur during regular business hours. The agency must contact ACOME personnel with the contact information of who the vehicle will be released to including name, phone number and relationship to the vehicle owner.

13.4.3. If the vehicle is being released to the owner or next of kin, photographic identification is required and a photocopy of this information must be made. If the vehicle is being driven from the ACOME, the driver must provide a valid driver's license.

♦END♦

14. Ion Mobility Spectrometry

14.1. Policy

Ion Mobility Spectrometry (IMS) testing can be performed on currency samples believed to be used for and in conjunction with drug transactions. The IMS is a Category B technique as per the Scientific Working Group for the Analysis of Seized Drugs (SWGDRUG).

IMS will be used by the Allegheny County Office of the Medical Examiner (ACOME) Drug Chemistry Section to analyze submissions for the presumptive presence of cocaine. The analysis is not considered to be confirmatory test for the presence of cocaine by the ACOME Drug Chemistry Section.

14.2. Procedure

14.2.1. IMS will only be conducted on confiscations totaling $1000.00 or more. Any denomination will be accepted.

14.2.2. IMS analysis will be performed by appointment only. In order to schedule an appointment, the law enforcement agency should contact the Drug Chemistry Manager or a scientist in the section who is qualified and authorized to perform an IMS analysis.

14.3. Prelog Requirements

14.3.1. Submissions for IMS analysis are unique and must be scheduled with the ACOME. Due to this fact, Prelog is not required and the submitting agency will meet with a Forensic Evidence Specialist on the scheduled date and time to submit evidence for IMS testing.

14.4. Evidence Disposition

14.4.1. Except in unique situations, the evidence for IMS analysis will be submitted into ACOME custody. The analysis will be completed, the report will be issued and the evidence will be returned to the submitting agency during the scheduled appointment.

14.5. If IMS analysis is requested but does not meet the submission requirements listed above, the law enforcement agency should contact the Asset Forfeiture Division (412-350-4414) of the Allegheny County District Attorney's Office (ACDA) to discuss the case. The ACOME can then be contacted by the ACDA to discuss any need for analysis.

15. APPENDIX

15.1 PACKAGING AND TRANSPORT OF BIOHAZARDOUS MATERIALS

15.1.1 Purpose

Materials collected for submission to the Forensic Laboratory that contain blood or other potentially infectious materials can pose a biological hazard to those that are collecting, transporting, and receiving these materials. This appendix provides guidelines for transporting evidence in a safe manner with the least risk of occupational exposure.

15.1.2 References

15.2.1.1. ***OSHA***, 29CFR 1910.1030, Occupational Exposure to Bloodborne Pathogens.

15.2.1.2. ***OSHA***, CPL 2-2.44D, Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogen.

15.1.3 Definitions

15.2.1.3. ***Blood*** means blood, blood components, and products made from blood.

15.2.1.4. ***Bloodborne pathogens*** means pathogenic microorganisms that are present in blood and can be transmitted to and cause disease in humans.

15.2.1.5. ***Contaminated*** means the presence or the reasonably anticipated presence of blood or any other potentially infectious materials on an item or surface.

15.2.1.6. ***Contaminated sharps*** means any contaminated object that can penetrate the skin, including but not limited to needles, knives, and broken glass.

15.2.1.7. ***Occupational exposure*** means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

15.2.1.8. ***Other potentially infectious materials (OPIM)*** means: 1) the following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; 2) any unfixed tissue or organ from a human (living or dead).

15.2.1.9. ***Parenteral*** means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

15.2.1.10. ***Universal Precautions*** is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain body fluids are treated as if known to be infectious with bloodborne pathogens.

15.1.4 Guidelines

15.3.1.1. Specimens of blood or materials contaminated with blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, and transport.

15.3.1.2. The container for transport shall be labeled with a predominantly fluorescent orange or orange-red biohazard label. Transport of contaminated material, within a facility that practices Universal Precautions, is exempt from labeling provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers **remain** within the facility. Labeling is required when such specimens/containers leave the facility.

15.3.1.3. If outside contamination of the primary container occurs, the primary container shall be placed within a second container, which prevents leakage during handling, processing and transport. The outer container is to be properly labeled.

15.3.1.4. If the specimen is a "sharp," the specimen shall be placed in a puncture resistant container in addition to the above packaging and labeling requirements.

15.1.5 Statement of Policy

Failure to comply with these guidelines presents a recognizable health risk. Furthermore, noncompliance with the OSHA regulations will allow the Laboratory to exercise its right to refuse any or all materials that are not properly packaged and labeled.

♦END♦

15.2 GLOSSARY

AFIS	Automated Fingerprint Identification System
ACP	Allegheny County Police
Action (Firearm)	The working mechanism of a firearm. The combination of the receiver or frame, the breech bolt, and the other parts of the mechanism by which a firearm is loaded, fired, and unloaded.
Agency Incident Number	Unique identifier that references a single case.
Biohazard	Any body fluid or tissue that may pose a biological threat to health and safety. This includes, but is not limited to: blood, saliva, human or animal tissue.
Biohazard Label	The universal symbol for biohazard (see figure below) on a florescent orange or orange-red label, or the word "**BIOHAZARD**" prominently displayed on the outer package. 
Bolt	The locking and cartridge head support mechanism of a firearm that operates in line with the axis of the bore. Also known as the breech bolt.
Break-open action firearm	A design wherein the barrel(s) is pivoted on the frame. When the action is open, the barrel(s) may pivot up, down, or sideways for loading or unloading. When the action is closed, the breech of the barrel(s) swings against the standing breech. Opening is normally accomplished by movement of a top-, side-, or under-lever. Also known as a Hinged Frame Action firearm.
Bullet	A non-spherical projectile for use in a rifled barrel.
Cartridge	A single unit of ammunition consisting of the case, primer, and propellant with one or more projectile(s).

Cartridge Case	The container for all the other components which comprise a cartridge.
CODIS	CODIS is the acronym for the "Combined DNA Index System" and is the network of DNA profiles contributed by federal, state, and local participating forensic laboratories.
Convenience Packaging	A larger box or bag used to contain, transport, or store multiple sealed containers pertaining to a single case, which is not sealed.
Cylinder	The rotating component of a firearm that contains the chambers.
Duplicate Lifts	The "second" lift made from the same latent Prints.
Elimination Prints	Inked Prints of all persons having legal access to the crime scene.
Ejection Port	An opening in the receiver or slide to allow for ejection of a cartridge, cartridge case, or shotshell.
Firearms Open Case File	A collection of bullets and cartridge cases recovered from crime scenes where no gun has been recovered; maintained by the Laboratory.
Frame	In revolvers, pistols, and break-open guns, the basic unit of a firearm which houses the firing and breech mechanism and to which the barrel and grips are attached. See Receiver.
Gray Top Tube	Evacuated test tube containing fluoride/oxalate preservative.
Green Top Tube	Evacuated test tube containing heparin.
Handgun	A firearm designed to be held and fired with one hand; usually a revolver or a pistol.

IAFIS	The Integrated Automated Fingerprint Identification System, or IAFIS, is a national fingerprint and criminal history system that responds to requests 24 hours a day, 365 days a year. IAFIS provides automated fingerprint search capabilities, latent search capability, electronic image storage, and electronic exchange of fingerprints and responses.
Latent Prints	Commonly referred to as "Prints found at a crime scene"; the deposit of moisture from the fingers or palms onto a substrate.
Lifts	A clear, adhesive tape used to remove developed latent Prints from a substrate.
Long Arm	Typically, a firearm designed to be fired from the shoulder; usually a shotgun or rifle.
Magazine	A container for cartridges, which has a spring and follower to feed those cartridges into the chamber of a firearm.
Magazine Well	That opening in a firearm which receives a detachable magazine.
NIBIN	National Integrated Ballistic Information Network [provided by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (BATFE)] is a means for capturing and comparing digital images of bullets and cartridge cases stored in databases owned by individual NIBIN sites. NIBIN can help identify links between seemingly unrelated crimes. Visit www.nibin.gov for more information.
Pellet	A common name for small, spherical SHOT. Or, a nonspherical projectile used in some air rifles and air pistols.
Physiological Fluid	Any liquid originating from a living organism. (e.g., blood, semen, saliva, vaginal secretions, drainage, etc.)

Probative Value	The ability of an item to serve as proof or evidence in a trial.
Reciever	The basic unit of a firearm which houses the firing and breech mechanism and to which the barrel and stock are assembled. In revolver, pistols, and break-open firearms, it is called the frame.
Range Determination	Muzzle-to-target range determination is based on gunshot residue pattern examinations and/or shot pattern examinations. These gunshot residues along with the morphology of the bullet hole or the size of the pellet pattern may effectively be used in determining the possible muzzle-to-target distance. Valid conclusions in muzzle-to-target range examinations are rooted in the reproduction of physical parameters related to the incident.
Sharp	Any object that can penetrate the skin. This includes, but is not limited to: needles, knives, broken glass, etc.
Sharps Container	A container composed of puncture resistant material and labeled as "SHARP." Examples include ridged plastic or cardboard tubes, heavy cardboard or plastic boxes, and metal cans or boxes. Paper and plastic bags or envelopes are **not** acceptable sharps containers. If the sharp may be contaminated (see Appendix 12.1), the sharp container must be labeled with a "Biohazard" label.
Shotshell	A cartridge containing projectiles designed to be fired in a shotgun.
Wad	A plug of cloth, paper, plastic or the like used to separate the powder charge from the projectile(s) or pellets.

♦END♦

15.3 EXAMPLES OF SAFE SUBMISSION OF FIREARMS

15.3.1 Revolvers



15.3.2 Pistols




15.3.3 Rifles

15.3.4. Shotguns

15.4 SUBMITTAL FORMS

General Submittal Form (EV.1F) *

*Used only when Prelog is unavailable.

Sexual Assault Information Submittal Form (EV.2F)

Toxicology DUI/DUID Submittal Form (EV.3F)

Environmental Submittal Form (EV.4F)

Afterhours Evidence Submittal Form (EV.5F)

♦END♦