



Massachusetts State Police Forensic Services Division Crime Laboratory



Item Analysis Policy

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1 Overview

1.1 General Information

The Massachusetts State Police Crime Laboratory (MSPCL) provides crime laboratory services and crime scene support to all local and state agencies within the Commonwealth of Massachusetts for the purpose of assisting in criminal investigations and judicial proceedings.

The MSPCL is committed to addressing public safety issues in the Commonwealth by providing high quality forensic services in an expeditious manner. The Item Analysis Policy (IAP) is designed to address the scientifically appropriate application of analysis and focuses on routine case submissions and the issues surrounding such assignments.

1.2 Requests Outside the Scope of This Policy

These guidelines set the standard requirements for routine requests for analysis at the MSPCL. The MSPCL acknowledges that, in some circumstances, there may be a need to analyze items that fall outside of the stated guidelines.

External requests for analysis that fall outside these guidelines should be made by the requesting agency to the MSPCL. Approval of requests outside of this policy will be at the discretion of the Crime Laboratory Director, Assistant Director, or applicable Deputy Director or Section Manager and will be documented in the case record.

Technical questions regarding specific case scenarios and feasibility of testing will be directed to the technical personnel of the respective unit who would perform the testing in question. Please contact the Case Management Unit (CMU) of the laboratory to obtain the specific contact information for applicable units.

email: mspclcmu@pol.state.ma.us
phone: 978-451-3440

2 General Analysis Considerations

2.1 Overview

- 2.1.1 The goal of the MSPCL is to provide a quality work product whilst thoroughly answering the relevant forensic questions as efficiently as possible. If the forensic relevance of a particular item cannot be established, or limitations of current technology are such that testing a

particular item is highly unlikely to yield forensically relevant results, the laboratory reserves the right to deny analysis.

- 2.1.2 Requests for analysis must be submitted in compliance with this policy. Compliance with this policy will provide local and state agencies in the Commonwealth with a timelier receipt of testing results.
- 2.1.3 All evidence submitted must be in connection with criminal investigations or death investigations. No examinations will be conducted for private individuals, corporations, or civil actions.
- 2.1.4 The MSPCL and its members are considered the subject matter experts and are the final authority on all technical issues based on approved policies and procedures.
- 2.1.5 With the exception of drug or toxicology evidence, a case scenario or police report detailing information about the evidence submitted must accompany all submitted evidence from an external agency. The report assists with establishing the forensic relevance of each item and its likelihood of providing inculpatory or exculpatory results as well as investigative leads. Analysis of submitted evidence will not commence until the laboratory receives the required information in a police report or case scenario.
- 2.1.6 Results from drug field testing are not used or considered during laboratory testing. Byproducts or test results from drug field testing kits should not be submitted to the laboratory.
- 2.1.7 All firearms submitted for analysis must have a corresponding 131Q form completed by the investigating agency in accordance with M.G.L. Chapter 140 Section 131Q.
- 2.1.8 With the exception of drug evidence, if the evidence is in MSPCL custody, CMU is available to assist with facilitating a case send-out to an external vendor laboratory at the expense of the requesting party. The laboratory will not facilitate the independent analysis of drug items/drug evidence for external agencies.
 - 2.1.8.1 Evidence not in MSPCL custody should not be submitted or returned for the sole purpose of shipment to an external vendor laboratory.
- 2.1.9 Analysis is considered complete when an association or link is established between the individual(s) associated with the case and the relevant evidence or when the relevant forensic question is answered. If further rounds of testing are required to establish a link or answer

additional forensic questions, the subsequent analyses will adhere to these guidelines.

- 2.1.10 Evidence removed from an individual's person is considered linked to that individual. This evidence shall not be processed to link it to the individual it was recovered from.
- 2.1.11 With the exception of firearm evidence, evidence submerged in water or other liquid prior to collection will not routinely be processed by the Forensic Biology Section.
- 2.1.12 Apart from samples submitted by the OCME, analysis which will result in the consumption of sample such that insufficient quantity remains for independent testing cannot proceed without proper authorization from the Prosecuting Attorney and/or Defense Counsel. The Toxicology Unit will coordinate with the Office of the Chief Medical Examiner (OCME) regarding postmortem sample consumption.
- 2.1.13 The timely response of the parties involved with the case regarding requests for information or documentation from the laboratory will increase the efficiency in which the case can be processed.
- 2.1.14 The MSPCL requests that any changes to the status of the submitted case (e.g., pending court motions, trial dates, case no longer active) be communicated from the investigator or prosecuting office to CMU. This communication enables the MSPCL to prioritize cases appropriately, ensure court motions are adhered to, and helps ensure a timely completion of requested analyses.

2.2 Case Evaluation Process

- 2.2.1 Multiple items may be submitted for analysis within a single case.
 - 2.2.1.1 All sample selection and testing will comply with approved protocols currently in use.
- 2.2.2 The laboratory will review the items submitted, in consultation with the requestor as needed, to determine the course of analysis.
- 2.2.3 Items will be selected for analysis by those most forensically relevant and likely to provide a forensic link, answer the relevant forensic question or provide relevant investigative information in the case.

2.3 Considerations for Order of Analysis

- 2.3.1 Items of evidence are routinely examined by Crime Scene Services

Section (CSSS) for potential fingerprints prior to examination in the Criminalistics Unit (Crim), DNA Unit, and/or Firearms Identification Section (FIS) to minimize any potential loss of latent prints due to downstream processing.

- 2.3.1.1 There may be occasions when the forensic relevance of an item necessitates processing by another unit prior to latent prints and/or latent print processing may negatively impact a downstream analysis if done prior (e.g., primer residue collection, examination of explosive devices). In such cases, it may be necessary to consult with the requesting agency to determine which analysis is more forensically relevant and proceed accordingly.
 - 2.3.2 Items requiring body fluid identification, potential skin cell collections, and/or gunshot residue distance determinations will be examined by Crim prior to analysis by DNA or the Trace/Arson and Explosives Unit (TRAE).
 - 2.3.3 Cases suitable for DNA analysis will then proceed to CMU to be prioritized for DNA assignment.
 - 2.3.3.1 CMU is responsible for administratively preparing a case for DNA analysis. Cases will be cleared for DNA assignment upon receipt of all necessary documentation and information by the laboratory, including any required authorization to consume quantity limited items.
 - 2.3.3.2 After analysis is complete, additional testing may be conducted if needed as determined by the investigators or prosecuting agency in consultation with the laboratory.
 - 2.3.3.3 Except for quantity limited (QLIM) items requiring the presence of a scientific defense representative, any additional rounds of testing will be slated for a subsequent case assignment. Scientific defense representative scheduling is subject to the representative's availability as well as the MSPCL's in-house schedule.
- 2.4 Analysis Considerations for Potential Drugs and Related Evidence

- 2.4.1 Any evidence (including drug packaging, backpacks, fanny packs, toothbrushes, etc.) related to drug possession only charges will not be processed by CSSS, Crim and DNA.
- 2.4.2 Exterior drug packaging of potential drug evidence (i.e., packaging not in direct contact with the potential drug evidence) in violent crimes and

trafficking cases may be processed by CSSS, Crim and DNA.

- 2.4.2.1 Exterior packaging should be separated from the potential drug evidence (if safe to do so) prior to submission to allow for streamlined processing.
- 2.4.3 Requests for CSSS, Crim and DNA analysis on drug packaging should be made through CMU, and must be accompanied by sufficient information/documentation, to support the forensic relevance of the testing and will require drug activation/analysis prior to subsequent testing.
- 2.4.4 Interior drug packaging or packaging in contact with the potential drug evidence may be processed only when potential drug evidence can be adequately removed and with the approval of the applicable Deputy Director(s) or Section Manager(s), and Assistant Director or Laboratory Director prior to the start of analysis. This approval must be documented in the case record.

2.5 Analysis Considerations for Syringes

- 2.5.1 Hypodermic syringes (whether containing a needle or not) and the expressed contents of hypodermic syringes will not be accepted by the laboratory without prior approval by a Deputy Director, the Assistant Director or Director.
 - 2.5.1.1 Approval will only be granted for the submission and analysis of hypodermic syringes/the expressed contents of hypodermic syringes for homicide investigations where no other items of forensic value are present/available.
- 2.5.2 Other syringe types without a needle present (e.g., a syringe containing suspected Butane Hash Oil) will be accepted for analysis per the IAP.
- 2.5.3 If multi-unit analysis (i.e., fingerprints and/or DNA) is requested on a hypodermic syringe, the respective units will be consulted prior to submission on the appropriate order of analysis.

3 Firearm Evidence

3.1 Analysis Considerations

- 3.1.1 The laboratory will process firearm evidence, to include frames/receivers, machine gun conversion devices, feeding devices and complete firearms for fingerprints, DNA collection and analysis by FIS. A complete firearm is considered one item with three components

(firearm, attached feeding device and ammunition within) when recovered as such.

- 3.1.1.1 Ammunition not associated with a firearm requiring fingerprinting, DNA collection and analysis by FIS may be sampled according to unit policy.
 - 3.1.1.2 Requests documented on the evidence submission form or within the case record for certification or NIBIN only will not be processed for fingerprints or DNA collection.
 - 3.1.1.3 DNA analysis will proceed on applicable samples for crimes against a person and found firearms. For DNA analysis on all other case types involving firearm evidence, including suicides, the requesting agency should contact CMU to discuss potential options for DNA analysis.
- 3.1.2 The laboratory may limit the number of firearms examined (e.g., bulk seizure of firearm evidence) for certification in connection with improper storage of firearm cases. These firearms will not be processed for fingerprints or DNA collection.
- 3.1.2.1 The laboratory may limit the amount of ammunition and magazines accepted at submission to include a representative sample of the corresponding firearms submitted in connection with improper storage cases.
- 3.1.3 Spent projectiles will not be processed for DNA collection or fingerprints.
- 3.1.4 Discharged cartridge casings are not routinely processed for fingerprints. Fingerprint analysis may be conducted on discharged cartridge casings in limited circumstances and requests for such must be reviewed and approved by the CSSS Section Supervisor or above.
- 3.1.4.1 Discharged cartridge casings may be processed for the collection of DNA. Upon request, these samples may be sent to an external vendor laboratory for DNA analysis at the expense of the requesting agency.
- 3.1.5 Firearm evidence submitted from a confidential informant buy or that is associated with case types other than those in Section 3.1.1.3 will not be processed for fingerprints or swabbed for DNA analysis if the item was removed from an individual's person.
- 3.1.6 Firearms shall not be processed by CSSS, Crim or DNA after the

evidence has been processed by FIS.

- 3.1.6.1 Firearms previously analyzed by another agency will not be examined by MSPCL except for comparative analysis.
- 3.1.6.2 Samples fired and subsequently submitted to the MSPCL by another agency for the purpose of NIBIN entry must be accompanied by supporting documentation with the required information for NIBIN.

4 DNA Evidence

4.1 Analysis Considerations

- 4.1.1 Evidence submitted in which there is clear documentation or information that the evidence was potentially contaminated during collection will not routinely be tested or analyzed. Analysis requires approval from personnel listed in Section 1.
- 4.1.2 Items that are known to have been handled without gloves by four or more individuals, excluding firearm evidence, will not be analyzed by the Forensic Biology Section.
- 4.1.3 Analysis will be conducted to establish a link or connection between individuals and the crime; it will not occur to identify all parties ever present at the location of the scene.
- 4.1.4 Except for firearm evidence, if identification has been made through fingerprint analysis, the Forensic Biology Section will not routinely process the item for DNA analysis.
- 4.1.5 Submission of all appropriate standards associated with the case will be requested, as needed, prior to a case being assigned to the DNA Unit for processing.

4.2 Case Submissions Without Suspects

- 4.2.1 Cases submitted without identified suspects are analyzed to develop a profile suitable for upload into the Combined DNA Index System (CODIS). These cases must meet certain scientific requirements and FBI regulations before a DNA profile generated from the evidence may be uploaded to the database. Items submitted for this route of analysis must demonstrate that the resulting DNA profile(s) can be linked to the putative perpetrator of the crime.
- 4.2.2 In the event of a link in the CODIS database, analysis of subsequent

samples may be requested to answer additional forensic questions for trial.

- 4.2.3 Items processed for male specific (Y-STR) DNA analysis are not uploaded or searched in CODIS. A Y-STR profile may be sufficient to establish a forensic link in a case. Comparative analysis requires the submission of appropriate male standards.
- 4.2.4 Complex DNA mixtures, partial DNA profiles, and/or degraded DNA profiles may not meet the requirements for entry into CODIS but may be suitable for comparison to DNA standards.

4.3 Item Type Considerations

4.3.1 Skin Cell Recovery Items

- 4.3.1.1 Skin cell recovery items are defined as evidence that contains no visible biological material or staining but may contain DNA from skin cells (e.g., handle of a knife used during a stabbing, brow band of a hat, saliva on a straw, cigarette).
- 4.3.1.2 The determination to analyze skin cell recovery items will be made at the discretion of the MSPCL in consultation with the requesting agency as needed.
- 4.3.1.3 These items will be assigned for DNA analysis only if MSCPL personnel determine that scientific principles indicate a reasonable likelihood that the item will contain DNA of sufficient quantity and quality to provide results of evidentiary value for the case in question. Due to CODIS eligibility requirements, these cases which do not have a suspect will be considered for analysis on a case-by-case basis.

4.3.2 “One Touch” DNA Items

- 4.3.2.1 One-touch items are defined as those items that may have been subjected to limited contact with a person’s skin. Depending on case circumstances, these may include such items as paper, money, a key, doorknob, car door handle, light switch, pens, fingerprints, or items moved during the crime.
- 4.3.2.2 One-touch items will not be approved for DNA analysis due to current technology limitations.
- 4.3.2.3 The MSPCL will not discourage an agency from collecting such an item. However, the MSPCL will not routinely process these items.

- 4.3.2.4 Agencies are encouraged to communicate with the laboratory to discuss current technology capabilities for particular evidence types.
- 4.3.3 Hair Analysis for DNA
 - 4.3.3.1 All hairs submitted to the MSPCL must be evaluated prior to DNA analysis to determine the suitability for DNA testing at the MSPCL.
 - 4.3.3.2 Hair analysis will only be conducted when minimal forensically relevant evidence exists or when considered a critical component to a case.
 - 4.3.3.3 If the hairs are not suitable for DNA testing at the MSPCL and are of significant forensic value, they may be sent to an external vendor laboratory for analysis.

4.4 Additional Analysis Options

- 4.4.1 Items designated in this policy as not suitable for DNA analysis by the DNA Unit or where the technology or procedure to process an item is not available in the MSPCL DNA Unit, will not routinely be examined by the Criminalistics Unit and will be returned to the submitting agency unanalyzed. However, if requested by the submitting agency, the case can be sent to an external vendor laboratory at the expense of the requesting agency.
- 4.4.2 Requests for review or analysis in Missing Person and Unidentified Human Remains cases should be submitted to the mspcl.unsigned@pol.state.ma.us email account.
- 4.4.3 The MSPCL does not perform phenotypic analysis or Forensic Investigative Genetic Genealogy (FIGG). Samples may be sent to an external vendor laboratory for these types of analyses. The MSPCL can assist with the evaluation of evidence and suitability of existing samples for FIGG. Requests for review or analysis should be directed to the mspcl.unsigned@pol.state.ma.us email account.

4.5 DNA Case Processing

- 4.5.1 Case Considerations
 - 4.5.1.1 The type and number of items analyzed per round of testing is based on case type and number of suspects. For all case types, known standards from victim(s), suspects(s) or elimination standards will not count towards the number of items that may be analyzed.

- 4.5.1.2 The Forensic Biology Section will triage the number of samples analyzed in each round to maximize the efficiency of the testing in accordance with current DNA processes.
- 4.5.1.3 If a forensically relevant profile is not developed in the initial round of testing or additional forensic questions remain, subsequent rounds of DNA testing may be performed. Direct requests for supplemental testing to CMU.
 - 4.5.1.3.1 In property crime cases, if the initial round of testing does not yield forensically relevant results, samples collected for the potential recovery of skin cells will routinely require an additional request from the submitting agency/prosecuting attorney for any further processing.

4.6 DNA standards for comparison

4.6.1 Known DNA Standards

- 4.6.1.1 Known DNA Standards are evidentiary DNA samples obtained directly from an individual, whether by consent, court order, or search warrant.
- 4.6.1.2 Except for known DNA standards submitted for missing persons/unidentified human remain cases, under no circumstances will the MSPCL upload evidentiary known DNA standards to the Combined DNA Index System (CODIS) database or any state or local databank that searches for or compares stored DNA profiles.
 - 4.6.1.2.1 Known DNA standards submitted for missing persons/unidentified human remain cases will be uploaded to the Missing Persons Database of CODIS when suitable.
- 4.6.1.3 Convicted offender samples collected pursuant to M.G.L. Chapter 22E, are not evidentiary DNA samples and will not be used for comparative analysis beyond the CODIS hit verification process.

4.6.2 Alternate DNA Standards

- 4.6.2.1 Alternate DNA Standards are DNA samples obtained when one from the person's body cannot be obtained directly or is no longer viable (e.g., the person is missing, deceased, or is a person of interest and the investigator cannot obtain a known buccal standard at the time).

- 4.6.2.2 There must be a high likelihood that this item will contain the DNA of only the person for whom it is collected. This should be corroborated by either family/friend statements or eyewitness testimony.
- 4.6.2.3 Alternate DNA Standards that exhibit a mixed DNA profile (DNA from more than one source) are not suitable and no comparisons will be made to the evidentiary profile(s).
- 4.6.2.4 Except for alternate DNA standards submitted for missing persons/unidentified human remain cases, under no circumstances will the MSPCL upload evidentiary alternate DNA standards to the Combined DNA Index System (CODIS) database or any state or local databank that searches for or compares stored DNA profiles.
 - 4.6.2.4.1 Alternate DNA standards submitted for missing persons/unidentified human remain cases will be uploaded to the Missing Persons Database of CODIS when suitable.

4.7 DNA Interpretation

4.7.1 General Considerations

4.7.1.1 Statistical Analysis

4.7.1.1.1 Statistical data will be generated as deemed necessary and further statistics may be requested if applicable.

4.7.1.1.2 The MSPCL does not perform paternity or relatedness statistics. Cases requiring these calculations may be suitable for a send-out to an external vendor laboratory.

4.7.1.2 If there is a question regarding the forensic relevance of the standards submitted for a case, the analyst may contact the submitting agency or ADA to determine what comparative analysis is necessary.

4.7.1.3 Unless the item is submitted as an Alternate DNA Standard (see guidelines above), any item directly removed from an individual will not be processed for DNA for the purpose of identifying the wearer/user (e.g., weapons, clothing, and shoes).

4.7.1.4 For Known DNA Standards or Alternate DNA Standards to be compared to the evidence, they must be submitted under the same case number as the evidence. The Forensic Biology Section will not conduct comparative analysis using standards submitted under

another case unless a biological link has been established through CODIS.

- 4.7.1.5 Standards submitted as a result of a confirmed CODIS link (case-to-case or case to offender) shall be permitted to be compared to all associated cases.
- 4.7.1.6 A standard submitted specifically for comparison under one case (including those submitted prior to any CODIS links), may be used for comparison to an additional case only if written authorization is obtained from the respective Prosecuting Attorney(s)' office(s) or by court order.
 - 4.7.1.6.1 Requests for such comparisons shall be submitted to CMU using the Multiple Case Comparison Authorization form (ID 38509).
 - 4.7.1.6.2 If cases for comparison are from different jurisdictions (e.g., counties), the MSPCL will require authorization from each county prior to conducting comparison.

5 Drug Evidence

5.1 General Analysis Considerations

- 5.1.1 The following types of cases will not be analyzed/reanalyzed:
 - 5.1.1.1 Cases containing “found” items; items with no identified subject under investigation or no pending criminal prosecution. This includes items recovered from fatal/non-fatal overdoses.
 - 5.1.1.2 Cases from “Confidential Informant” or “CI Buys”
 - 5.1.1.3 Cases with no identified judicial need apart from officer safety or public safety assessments (e.g., child endangerment).
 - 5.1.1.4 Previously analyzed cases.
 - 5.1.1.4.1 When the original analyst is unable to be retained for testimony in cases where the weight of the substance is part of the charge, the laboratory will only reweigh the applicable items needed to support the charge after ADA consultation with MSPCL Legal Counsel and the Drug unit Section Supervisor, Forensic Chemistry Section Manager or Deputy Director. This approval will be documented in the case record.

- 5.1.2 For cases containing food products, vaporizer cartridges or injectable vials (e.g., suspected steroids), only one unit of each type (e.g., one chocolate bar, one cookie, one package of gummies, one vaporizer cartridge per brand should be submitted to the laboratory for analysis.
- 5.1.3 In every case, the most forensically relevant items for analysis shall be determined by item type, quantity and/or potential evidentiary value. Factors used for consideration may include, but are not limited to, the following:
 - 5.1.3.1 Specific charges or offense
 - 5.1.3.2 Items specifically associated with a single subject
 - 5.1.3.3 Condition of items submitted, e.g., mold, degradation
 - 5.1.3.4 Information received as part of on-going investigation(s)
- 5.1.4 Evidence discrepancies, delays in communication, insufficient or incorrect information may result in one or more of the following:
 - 5.1.4.1 Delay in case assignment to an analyst
 - 5.1.4.2 Impact on sample selection and subsequent testing
 - 5.1.4.3 Return of the evidence without analysis to the submitting agency
- 5.1.5 Except for MSP evidence, cases that have been opened in court will not be accepted for repackaging/inventory.
 - 5.1.5.1 Evidence previously examined by the Drug Unit may be returned for repackaging for presentation in court, as needed, with prior notification to a Drug Unit Supervisor.

5.2 Analysis Considerations for Suspected Marihuana

- 5.2.1 Unless requested by the investigating agency, items visually consistent with Marihuana will not be analyzed when other items present within the same case are found to contain a controlled substance defined in M.G.L. Chapter 94C, Section 31, Classes A – D.
 - 5.2.1.1 Items visually consistent with Marihuana which are estimated to exceed a threshold weight as defined in M.G.L. Chapter 94C, Section 32E shall be analyzed, regardless of other items present.
- 5.2.2 Items visually consistent with Marihuana will be analyzed when no other items of forensic value are present in the case or when all other items

present are not controlled in Classes A – D.

- 5.2.2.1 For cases containing multiple items that are visually consistent with Marihuana not estimated to exceed a threshold weight, only one unit from one item will be tested; for cases where these items are clearly attributable to different subjects, one unit will be tested per subject. The remaining items will be documented as also submitted but not tested. Testing of units from additional items may be conducted with the prior approval of a Drug Unit Supervisor.
- 5.2.2.2 For cases where items visually consistent with Marihuana are the only item(s) clearly attributable to a single subject, one unit from one item will be tested. Testing of units from additional items may be conducted with the prior approval of a Drug Unit Supervisor.

5.3 Analysis Considerations for Items Suspected of containing a Tetrahydrocannabinol (THC)

- 5.3.1 Items suspected to contain a THC will not be analyzed when other items present within the same case are found to contain a controlled substance as defined in M.G.L. Chapter 94C, Section 31, Classes A – C, unless requested by the investigating agency.
 - 5.3.1.1 Items suspected to contain a THC will be analyzed when no other items of forensic value are present in the case, or when all other items are not controlled in Classes A – C.
 - 5.3.1.2 For cases containing multiple varieties of items suspected to contain a THC, only one unit from one variety will be analyzed. This applies to cases containing multiple varieties of one item type (e.g., a submission containing chocolate bars, gummies, and cookies), as well as cases containing multiple varieties of different item types (e.g., a case containing chocolate bars, gummies, brown resinous material, and vaporizer cartridges containing amber liquid).
 - 5.3.1.3 For cases where items suspected to contain a THC are the only item(s) clearly attributable to a single subject, one unit from one item will be tested. Testing of units from additional items may be conducted with the prior approval of a Drug Unit Supervisor.

5.4 Analysis Considerations for Pharmaceutical Preparations

- 5.4.1 For cases containing multiple types of the same pharmaceutical preparation (defined as containing the same active substance(s) per pharmaceutical identifier), only one unit from one type will be analyzed unless the results of analysis return a result inconsistent with the

pharmaceutical identifier.

- 5.4.1.1 For cases containing multiple types of currently known commonly encountered counterfeited pharmaceutical preparations, one unit from each type will be analyzed.
- 5.4.2 Cases containing pharmaceutical preparations visually identified as Class E controlled substances or that are not controlled under Chapter 94C, Section 31 of the Massachusetts General Laws via pharmaceutical identifier will not be tested further.
- 5.4.3 Domestically produced pharmaceutical preparations submitted to the laboratory in sealed factory packaging with a National Drug Code Registry (NDC) number that can be verified through the Food and Drug Administration (FDA) NDC Database will not be analyzed, unless specifically requested or the pharmaceutical has an associated threshold weight that will be surpassed.
 - 5.4.3.1 Pharmaceutical preparations submitted in sealed packaging that do not meet the above criteria will be tested in accordance with Drug Unit protocols.
- 5.5 Analysis Considerations for Residues and Miscellaneous Items
 - 5.5.1 Drug paraphernalia (e.g., scales, smoking devices, cigarettes/cigarette butts, clips, spoons, and caps) and the residues in drug paraphernalia will not be analyzed when measurable quantities of the associated drugs are among the items submitted and tested.
 - 5.5.1.1 For cases containing solely residue items, one unit from each item type will be analyzed.

6 Toxicology Evidence

6.1 Analysis Considerations

- 6.1.1 Human performance cases contain antemortem biological specimens associated with Drug Facilitated Crimes (DFC), Operating Under the Influence (OUI) and other investigations.
 - 6.1.1.1 Biological specimens from deceased individuals submitted for the purpose of OUI analysis will not be analyzed.
- 6.1.2 Cases submitted to the Toxicology Unit for OUI that contain blood, serum, or plasma specimens will be routinely evaluated for alcohol concentrations and drug analysis.

- 6.1.2.1 Routine OUI analysis may be subject to change based on specimen volume, requests from the investigating agency, or as directed by the Section Supervisor.
- 6.1.3 Cases submitted to the Toxicology Unit for OUI that only contain a urine specimen will be tested for drugs only, alcohol analysis will not be performed.
- 6.1.4 The Toxicology Unit will only test postmortem samples submitted by the Massachusetts OCME. The following types of specimens may be received for postmortem cases: biological samples taken during autopsy or view, antemortem specimens collected at a hospital before the decedent expired or specimens collected at time of organ/tissue donation.
 - 6.1.4.1 Syringes, controlled substances, or other non-biological evidence will not be accepted for analysis by the Toxicology Unit.

6.2 Serum Conversions and Retrograde Extrapolations

- 6.2.1 The Toxicology Unit will perform ethanol serum/plasma conversions based on hospital medical records when requested. NOTE: The ethanol result used in these serum/plasma conversion reports is provided to the Massachusetts State Police Crime Laboratory by an external party and therefore these reports do not fall under the laboratory's scope of accreditation.
 - 6.2.1.1 Conversion cannot be performed on postmortem toxicology results or breath test instrument results.
 - 6.2.1.2 The medical records/laboratory results provided must indicate the following:
 - 6.2.1.2.1 If testing was performed on whole blood or serum
 - 6.2.1.2.2 The units for serum results
 - 6.2.1.2.3 That the results are for ethanol or ethyl alcohol testing
 - 6.2.1.3 Any of this information not contained within the medical records must be provided to the laboratory by the requesting party.
- 6.2.2 The Toxicology Unit will perform a retrograde extrapolation upon request.
 - 6.2.2.1 Extrapolation cannot be performed if the BAC is 0.03% or less OR if the time interval between incident and blood collection is two hours

or less.

6.2.2.2 Requests must be accompanied by the following:

6.2.2.2.1 A copy of the police report

6.2.2.2.2 A copy of the medical records laboratory result.

6.2.2.3 The incident report provided must indicate the following:

6.2.2.3.1 Time of the incident or responding officer's arrival to the scene.

6.2.2.4 The medical records/laboratory results provided must indicate the following:

6.2.2.4.1 If testing was performed on whole blood or serum.

6.2.2.4.2 The units for serum results.

6.2.2.4.3 That the results are for ethanol or ethyl alcohol testing.

6.2.2.4.4 Time of blood draw.

6.2.2.5 Any of this information not contained within the medical records, incident report, or existing laboratory records, must be provided to the laboratory by the requesting party.

6.2.2.6 When the ethanol result used in the retrograde extrapolation report is provided to the Massachusetts State Police Crime Laboratory by an external party via medical records, these reports do not fall under the laboratory's scope of accreditation.

7 Trace/Arson and Explosives (TRAE) Evidence

7.1 Trace Analysis Considerations

7.1.1 Comparison samples are required to initiate case processing, with the exception of paint data query (PDQ) cases.

7.1.2 Items for physical match comparison will not be analyzed if they have been in contact with one another prior to submittal to the laboratory.

7.1.3 The following items will not be analyzed: soil, plastic bags (including trash & zip lock bags), wood, vegetative matter, lamp filaments and areas of items previously fingerprinted.

- 7.1.4 In a multiple trace discipline case (e.g., a case with paint, fibers, physical match evidence), if the forensic question has been answered with the examination and comparison of one of the disciplines (e.g., physical match) further analysis will not routinely proceed.

7.2 Gunshot Residue Analysis Considerations

- 7.2.1 The TRAE Unit will not analyze a gunshot residue (GSR) sample collected in the following circumstances:
 - 7.2.1.1 The hands of an individual greater than 4 hours between the reported time of the firearm being discharged and the collection.
 - 7.2.1.2 The hands of an individual who was fingerprinted or washed their hands prior to collection.
 - 7.2.1.3 The hands or clothing of a deceased individual with a gunshot wound.
 - 7.2.1.4 Washed or water-soaked items.
 - 7.2.1.5 A GSR stub improperly collected (e.g., protective cover not removed prior to collection), or heavy amount of debris is collected on sample.
 - 7.2.1.6 The TRAE Unit will not analyze a GSR sample collected from the hands or clothing of an individual with a gunshot wound. The requesting agency should contact CMU to discuss any such request.

7.3 Explosives Analysis Considerations

- 7.3.1 A device identified as a hoax device by investigators will not be examined by the TRAE Unit.
- 7.3.2 Explosive materials or precursors previously tested by HAZMAT for safety purposes may be tested by MSPCL.
 - 7.3.2.1 Portions of the untested material may be submitted for analysis.

8 Closing Cases without Analysis

8.1 Case Disposition

- 8.1.1 If a case is no longer active and forensic analysis is not required, the investigating/prosecuting agency should notify the laboratory by

contacting CMU.

- 8.1.2 CMU will administratively close assignments when evidence submitted does not meet the requirements outlined within this policy. CMU will notify the appropriate agencies when closing assignments outlining the reasons no analysis will occur and documenting in the case record.
- 8.1.3 CMU will administratively close any non-activated Drug assignments with evidence that has been in the custody of the laboratory for more than two years. This evidence will be returned to the submitting agency. Any unanalyzed evidence returned to agencies may be resubmitted to the laboratory if it is later determined that the case will proceed toward prosecution.
- 8.1.4 CMU will notify the appropriate units and record the information in the case record including the agency indicating the testing is no longer necessary.