

	LPU-PM 9.0 Handling of Hazardous Materials	
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	<i>Document Manager: Tracee McIntosh</i>	<i>Approved By: Jeffrey Nye</i>

9.1 Latent Print Unit Hazards and Safety Plan

9.1.1 Scope

This policy applies to personnel assigned to, or conducting work in, the FSD Latent Print Units. This policy describes safety requirements specific to latent print personnel handling and processing powder controlled substances packaging, biohazard and other hazardous evidence. These requirements are in addition to all requirements described in the Forensic Science Division Health and Safety Manual.

9.1.2 Responsibility

9.1.2.1

All FSD employees shall demonstrate responsibility for health and safety, and understand and follow FSD and local laboratory safety policies, plans, and procedures. These protocols are in addition to the responsibilities listed in SM1 in the Health and Safety Manual

9.1.2.2

Unit Supervisors shall promote safe practices in the Latent Print Units and shall ensure that employees and guests of the laboratory understand and follow all FSD and local laboratory safety policies, plans, and procedures.

9.1.3 Terminology

Personal Protective Equipment (PPE) refers to equipment worn to minimize exposure to hazards that can cause serious workplace injuries and illnesses that could result from contact with chemical, physical or other workplace hazards.

Laboratory area refers to any work space in which evidence is opened or chemical processes are used.

Photography Room refers to any work space in which the actual evidence resides in order to document the processing results.

9.1.4 General Precautions

9.1.4.1

General precautions are appropriate for handling and analysis of most submissions.

9.1.4.2

High Hazard powder controlled substances (includes Opioids such as fentanyl, carfentanil,..) shall not be submitted to the Latent Print Unit without prior approval of the Laboratory Director.

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9.1.4.3

All packaging that has originally contained a powder controlled substance that is submitted for latent print analysis will be considered an unknown powder and shall require the PPE and special handling for high hazard substances. The confirmation of a type of powder substance may be made on some, not all, of the submitted drug packages that are transferred to the Latent Print Unit for processing. The confirmation of a particular controlled substance does not guarantee that no other hazardous materials existed in the powder substance.

For Biohazard or other Hazard labeled evidence: Precautions should be scaled according to the hazards presented by the listed precautions on the packaging and submitted paperwork and direct observations of evidence.

9.1.4.4

Gloves are the minimum personal protective equipment (PPE) required for handling of biohazard evidence packages and seized controlled substance evidence containers at time of submission and storage.

9.1.4.5

Nitrile gloves and a lab coat are the minimum PPE required for active examination of all seized controlled substance packaging and biohazard casework.

9.1.4.6

The use of goggles is encouraged based on the evaluated hazard of the evidence being processed. Chemical safety goggles are required for processes that present a splash hazard.

9.1.4.7

Personnel should assume that all substances of unknown hazard are hazardous.

9.1.4.8

Analysts should avoid performing chemical procedures while alone in the laboratory.

9.1.4.9

Eating, drinking, and applying cosmetics are prohibited in evidence storage areas and in all areas in which chemicals are present, including photography rooms.

9.1.4.10

Food, beverages, chewing gum, and other consumable items are prohibited in evidence storage areas and in all areas in which chemicals are present. This does not apply to evidentiary items.

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9.1.5 Glove-Free Areas

9.1.5.1

Each Latent Print Unit shall designate by signage and verbal notification of personnel if specific areas and pieces of equipment in the laboratory area and photography room can be handled glove-free. This includes telephones, keyboards and mice. Glove-free equipment shall not be handled with gloved hands.

9.1.5.2

Signage should be visible and should be large enough to be easily recognized and read by users of the equipment.

9.1.5.3

If possible, a remote terminal is recommended rather than moving computer and peripheral devices to or from office and laboratory area workstations for case documentation.

9.1.5.3.1

If a computer or laptop must be moved between a laboratory area and office area for case entry, the following practices shall be implemented when practicable:

- The computer/laptop shall be considered glove-free and shall not be touched with gloved hands that have handled hazardous evidence.
- Clean gloves shall be worn at all times when handling the mice, keyboards, and monitors that are assigned to a processing/photography room. These peripheral computer accessories shall not be moved between office and laboratory/photography area workstations and shall be not be considered glove-free.
- Laptops must be kept closed in laboratory areas.
- Laptops and peripheral devices must be physically separated or isolated from laboratory area work spaces such as by placement upon a high shelf or away from the working surface upon which evidence rests. The computer/laptop should be covered with Kraft paper, placed in a drawer if possible, and/or kept as far removed from the evidence being handled as possible.
- Outer surfaces of laptops/computers must be thoroughly cleaned with a disinfectant wipe prior to moving the device from a laboratory area to another location.

9.1.5.4

Telephones and signature pads in evidence reception areas shall be handled glove free and do not need signage.

9.1.5.5

Computer keyboards and peripherals used for evidence reception purposes shall not be considered glove free unless marked and manipulated as such.

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9.1.6 Housekeeping Procedures

9.1.6.1

Each employee is responsible for the housekeeping and general tidiness of his or her own work space. Laboratory personnel are jointly responsible for housekeeping of shared laboratory spaces.

9.1.6.2

Laboratory management shall insist upon maintenance of housekeeping standards consistent with the recommendations of the FSD Health and Safety Officer, the FSD Health and Safety Program, and the Latent Print Unit Safety Plan.

9.1.6.3

Each employee shall keep work areas clean and uncluttered.

9.1.6.4

In order to minimize inadvertent exposure to possible safety hazards associated with seized drug evidence packaging and biohazard evidence, the following procedures shall be employed when practicable:

9.1.6.4.1

Clean paper shall be used to cover the work surface upon which evidence may be inventoried or examined.

9.1.6.4.2

A new, clean piece of paper shall be used for each new biohazard or unrelated item of evidence inventoried and examined.

9.1.6.4.3

Work areas and tools shall be cleaned and a new, clean piece of Kraft paper shall be placed in the affected laboratory/photography areas upon the completion of each case involving the processing of powder drug packaging or biohazard evidence.

9.1.6.4.4

During photography of packaging from controlled substances and biohazard evidence, clean paper must be placed under the evidence. If back lighting using a light box is needed, clear transparency plastic sheets shall be placed on the light box surface upon which the evidence will rest. The transparency plastic sheets will be discarded in the biohazard waste container after single use.

9.1.6.4.5

Equipment shall be cleaned as soon as practical in the event of a spill or observation of potentially hazardous material. Alcohol or alcohol-based wipes shall be used for cleaning the equipment and surfaces. The employee shall wear appropriate PPE during the cleaning process.

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9.1.6.5

Personal work spaces shall be cleaned on a weekly basis.

9.1.6.6

Shared laboratory work areas and equipment shall be cleaned on a monthly basis.

9.1.6.7

Evidence Reception area surfaces should be cleaned between work operations involving drug packaging or biohazard evidence.

9.1.7 Hazard Control Considerations

9.1.7.1

Powder specimens shall be separated from packaging prior to submission to the Latent Print Units for processing.

9.1.7.2

PPE shall be scaled such that all powder controlled substances packaging is treated as a high hazard. Appropriate PPE for High Hazard powders shall include Nitrile gloves, a laboratory coat in which the sleeves are tucked into the gloves, and a respirator.

Analysts may use either the Air Purifying Respirator (APR) half mask with disposable cartridges or the N95 disposable filtering face piece (dust mask). The N95 mask shall be discarded after a single daily use. Refer to the Health and Safety Manual (SM 2.2.8) for the required respirator authorization process.

9.1.7.3

PPE shall cover exposed skin of hands and forearms, such as by firmly tucking lab coat cuffs into gloves.

9.1.7.4

Eye protection may be worn during the handling and examination of any drug packaging or biohazard case.

9.1.7.5

Eye protection and N95 dust masks shall be worn during the handling and examination of any biohazard case in which the suspected blood is "flaking" off of the surface. Handling of this type of evidence should be performed in a fume hood as much as possible.

9.1.7.6

A methanol pre-wash, using a small amount of methanol in a wash bottle, shall be used to remove the powder from all powder drug packaging submitted to the print unit prior to processing. The wash solution should be poured down the drain, in the fume hood if practicable.

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9.1.7.7

Personnel present in the examination area during an ongoing examination of evidence with suspected “flaking” blood or drug (powder) packaging shall wear the same level of PPE as the analyst performing the examination.

9.1.7.8

Controlled substances packaging that contained other substances such as plant material, crystals and tablets may leave residue or produce airborne particulates. Cases in which packaging of this type is submitted to the latent print unit shall be evaluated by the analyst for the use of hoods for breakdown and respirators.

9.1.7.9

Caution should be used to evaluate all evidence for possible hazards. Moldy evidence, items soaked in a flammable liquid or noxious chemicals (such as pepper spray or bank dye packs) should be carefully evaluated for the use of respirators and placed primarily in a fume hood,

9.1.7.10

In the event that hazardous evidence must be moved into a different laboratory space for additional processing or photography, the evidence shall be placed in a closed container during transport.

9.1.8 Specific Precautions for High Hazard Powder Specimens

9.1.8.1

Packaging that is confirmed by the Controlled Substances Unit to have contained a High Hazard Powder specimen or unknown powders shall only be examined when at least two FSD personnel are present in the Latent Print Unit or a second analyst in the Laboratory is aware of the evidence being processed.

9.1.8.2

Laboratory personnel shall remain alert to symptoms of opioid exposure in themselves and others.

9.1.8.3

The symptoms of opioid exposure are

- SHALLOW or SLOW BREATHING
- SMALL PUPILS
- Dizziness
- Drowsiness
- Weakness

9.1.8.4

If symptoms of exposure are present, call 911 and administer applicable first aid.

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9.1.10 Safety References

- FSD Health and Safety Program
- FSD Safety Alert 8 – 9/06/2016
- <https://www.osha.gov/SLTC/personalprotectiveequipment/> September 8, 2016.
- FSD Nalaxone Instructions, Qualtrax ID 18406