2 Facilities

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The Biology section will be designed to provide adequate space and setup to perform casework analysis. General facility requirements are described in the Quality Manual.

2.1 Work Areas

The Biology section will have space for evidence examination. The tasks performed in this area can include: blood and semen fluid identification, swab collections, cutting of stains, portioning of swabs and cuttings, microscopy and trace evidence collection.

2.2 Contamination

With the facility provided, setup and procedures will be designed to minimize the potential for DNA contamination. Traffic in and through areas in which testing occurs will be minimized.

Prevention and Decontamination

10% bleach, or DNA Away where bleach may be harmful to instruments or equipment, will be used to decontaminate utensils and workbenches. Other commercial decontaminants may be used only if they have been demonstrated to destroy or inactivate DNA.

Wear disposable gloves during all testing and reagent preparation. Change gloves frequently and whenever gloves may have become contaminated. Discard gloves when leaving a work area. Use sterile, disposable pipette tips and microcentrifuge tubes. Change pipette tips between samples. Centrifuge all liquid to the bottom of closed microcentrifuge tubes before opening.

Clean work surfaces in the evidence examination areas thoroughly with a lab-approved decontaminant prior to and at the end of each evidence examination session. Use disposable bench paper whenever possible and change each time it comes in contact with evidence. Use a clean cutting surface such as weighing paper or piece of paper for evidence. Protect supplies of this paper from dust and other particulates or aerosols. Clean instruments (e.g., scalpels, scissors, forceps) with decontaminant between evidence samples. To prevent contamination of other standards or evidence, handle each piece of evidence one at a time. Liquid samples, such as blood standards, and wet exhibits shall be allowed to air dry in a method that it will not come into contact with other pieces of evidence.

Wear gloves when cleaning glassware and plastics. In general, clean glassware/plastics with an appropriate soap, e.g., Liquinox or Alconox, and water. Rinse with deionized or distilled water and allow to air-dry inverted. Glassware should be autoclaved. Plastic ware should be placed under UV light for ~15 minutes. Store glassware and plastic ware after being autoclaved or being cleaned by UV light.

2.3 Safety

There are biological and chemical hazards in the laboratory. Each lab employee is responsible for familiarity with the Laboratory Safety Manual. Any incident or condition that occurs in or under the control of the laboratory and that threatens the immediate or future health of any individual must be immediately brought to the attention of the section supervisor and a laboratory safety officer. Corrective action related to safety incidents will be defined by laboratory management.