



# Forensic Biology Section

## Handling Convicted Offender and Known Reference Samples

### 1. **Scope**

- 1.1. Proper procedures for the handling and processing of DNA reference samples from convicted felons and adjudicated juveniles that are required by law to submit a sample (see appendix A for qualifying offenses).
- 1.2. The handling and processing of elimination samples (such as lab staff, law enforcement officers, medical examiner's office staff, etc.) should be handled and processed in the same manner as convicted offender samples.

### 2. **Safety**

- 2.1. The scientist will wear gloves and a laboratory coat at all times to reduce the risk of biological or chemical exposure.
- 2.2. Universal precautions must be observed at all times during this procedure.

### 3. **Background Information**

- 3.1. The Maine DNA Database and Databank Act Title 25, Chapter 194 mandates that a person convicted or adjudicated of the following offenses shall have a biological sample collected and sent to the Maine State Police Crime Laboratory for DNA analysis:
  - 3.1.1. An adult convicted on or after January 1, 1996 and before October 1, 2001, of a crime (or lesser included offense) listed in §1574, subsection 4.
  - 3.1.2. An adult convicted on or after October 1, 2001, of a crime (or lesser included offense) listed in §1574, subsection 5.
  - 3.1.3. An adult convicted and incarcerated prior to January 1, 1996, as a result of a conviction for a crime listed in §1574, subsection 4, must have a DNA sample taken before release from the corrections system
  - 3.1.4. A juvenile adjudicated on or after October 1, 2003, of a crime listed in §1574, subsection 6.

### 4. **Specimen**

- 4.1. Buccal cells collected on swabs or spotted onto FTA paper.
- 4.2. Convicted Offender DNA Collection Kits, distributed to members of the Maine Department of Corrections and County jails to collect biological samples and donor's information.

### 5. **Reagents and Special Supplies**

- Convicted Offender DNA Collection Kit, consisting of foam-tipped swabs (to collect buccal cells), DNA Information Card (to store biological material and capture donor's personal information), and pre-addressed postage-paid barrier pouches (to deliver samples to Crime Laboratory).
- UltrabARRIER Pouch
- Coin Envelope
- Tamper-evident tape



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### **6. Quality Assurance**

- 6.1. The reference samples collected from individuals are considered “reference material”, not evidence items, but should still be handled with all the care and precautions to prevent loss, cross contamination, or deleterious change.
- 6.2. Only one specimen will be handled at a time during receipt. DNA may be analyzed in batches of numerous samples at a time.
- 6.3. Unprocessed collection kits are stored at room temperature or in a refrigerator.
- 6.4. All relevant information on the DNA Information Card that comes with each Convicted Offender DNA Collection Kit is entered into the Convicted Offender Databank.
- 6.5. Each database sample is assigned a unique identifier when the information on the DNA Information Card is entered into the Convicted Offender Databank. This unique identifier is placed on the information card and the two biological specimens.
- 6.6. One set of database samples (in coin envelopes) are stored at room temperature in a secure location with limited access within the Crime Laboratory until they can be DNA profiled by the Crime Laboratory or by a contract laboratory and entered into the CODIS database under the corresponding unique identifier. No names or personal information should be entered into the CODIS database for any offender sample.
- 6.7. A second set of database samples (in barrier pouches) are stored at room temperature in a secure location with limited access within the Crime Laboratory in the event of a CODIS match (“hit”), at which point they are tested to confirm the DNA profile. These samples are also retained in the event a new technology requires retesting of the convicted offender reference samples in the future.
- 6.8. The DNA Information Cards (or scanned copies) are stored in a secure location with limited access within the Crime Laboratory to be referenced in the event of a CODIS hit to confirm the name and conviction of the offender.
- 6.9. A good-faith effort is made to confirm the accuracy of the information submitted on the DNA Information Card through other databases and resources within the Department of Public Safety and the Department of Corrections when a hit is obtained.

### **7. Receipt and Data Entry**

- 7.1. When the Convicted Offender DNA Collection Kits are received at the Crime Laboratory, the date and initials of the person receiving the kits must be recorded on the packaging or bundle of packages.
- 7.2. Sealed kits are stored in the CODIS Lab at room temperature or in a refrigerator until processed.
- 7.3. If the seal on an envelope appears broken or tampered with at time of receipt, the sample and corresponding DNA Information Card must be discarded appropriately and confidentially. A representative from the collecting agency must be notified that another sample must be taken from that individual.



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- 7.4. All Convicted Offender DNA Collection Kits submitted to the laboratory should contain a properly packaged DNA Information Card with buccal cells spotted on the attached FTA paper.
  - 7.4.1. The FTA paper changes from pink to pinkish white after saliva has been applied to the paper.
- 7.5. The date of receipt and the processor's initials must be placed on the back of the DNA Information Card in the appropriate area.
- 7.6. The DNA Information Card must be examined to ensure that all pertinent information about the sample donor is provided by the collecting agency.
  - 7.6.1. If the information card contains insufficient data or the offense does not meet the specific criteria established by the DNA Database and Databank Act (see Appendix A), the conviction and original charge should be researched either by contacting the collecting agency or through CORIS or SBI.
  - 7.6.2. In many cases, the "plead to" or conviction charge is recorded on the information card and may not meet the law's criteria, but the original charge may. If the original charge is determined to meet the criteria and the conviction is a "lesser included offense", then the information can be added to the card and the sample can be processed for analysis.
  - 7.6.3. If the charge or conviction does not qualify under Maine Law, the sample must be discarded and the collecting agency should be notified that the sample has been discarded and a case note must be written and filed in the appropriate folder. When a sample is discarded, the corresponding DNA Information Card must be discarded in a confidential manner.
- 7.7. The data contained on the DNA Information Card must be entered into the Convicted Offender Databank.
- 7.8. Once a record is saved, the database assigns a unique identifier to the sample and prints bar code labels with the "ME" number (e.g. "ME123456"), which will then be used as the unique and anonymous identifier for that sample during analysis and within the DNA database.
- 7.9. Printed bar code labels are attached to the DNA Information Card, the two perforated FTA cards, a small barrier pouch and a coin envelope.
- 7.10. One FTA card is placed in the barcode-labeled barrier pouch and the other FTA card is placed in the barcode-labeled coin envelope.
- 7.11. After reference samples are placed in the appropriate envelopes they are to be gum- and/or tape-sealed, initialed and dated.

## 8. DNA Analysis



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- 8.1. Database samples are analyzed in the same manner as casework samples. See Forensic Biology Section DNA extraction, quantification, amplification & detection, and analysis & interpretation methods.
- 8.2. The only exceptions that may apply to database samples would be:
  - 8.2.1. There is no chain of custody for the CODIS reference samples.
  - 8.2.2. Samples may be processed singly or in large batches, either by hand or with validated instrumentation.
  - 8.2.3. The use of redundant positive controls within batches, and that it is only necessary that one of these positive controls needs to pass QC within a batch.
  - 8.2.4. Greater analyst discretion is allowed with interpretation of DNA profiles since these are single-source reference samples.
  - 8.2.5. Indications of very low-level DNA from extraneous sources will not automatically invalidate the analysis, but incidents still need to be documented and reviewed by the DNA technical leader.