

TENNESSEE BUREAU OF INVESTIGATION

Forensic Services Division



CODIS Standard Operating Procedures Manual

1.0 Introduction to CODIS

1.0 – INTRODUCTION TO THE TENNESSEE COMBINED DNA INDEX SYSTEM

- 1.1 The purpose of the Combined DNA Index System (CODIS) computer software is to create a national informational repository where law enforcement agencies can share deoxyribonucleic acid (DNA) information obtained from convicted offenders, registered sex offenders, arrestees, relatives of missing persons, and forensic evidence specimens. This system allows criminal justice agencies to cross reference case evidence profiles with that of other criminal justice agencies' case evidence profiles. (Refer to Appendix A for terms and definitions)

There are three levels of CODIS software, which accepts polymerase chain reaction (PCR) based short tandem repeat (STR) analysis: the National DNA Index System (NDIS), the State DNA Index System (SDIS), and the Local DNA Index System (LDIS).

- 1.1.1 NDIS is maintained by the Federal Bureau of Investigation (FBI). For the state of Tennessee, SDIS is maintained by the Tennessee Bureau of Investigation (TBI) headquarters laboratory located in Nashville while LDIS is maintained by all three TBI laboratories located in Nashville, Knoxville, and Memphis. An additional LDIS is located at the Metro Nashville Police Department Crime Lab.
- 1.1.2 The TBI regional laboratories maintain a database of casework DNA profiles. This forensic unknown index allows laboratory personnel to enter an eligible DNA profile into LDIS and search that profile against other casework and/or arrestee profiles in their respective region. LDIS labs also have the capability to upload DNA profiles to the SDIS level. SDIS is capable of uploading to the NDIS level. This movement of DNA profiles between levels is achieved electronically through the Criminal Justice Information Service - Shared Enterprise Network (CJIS-SEN).
- 1.2 The state CODIS unit, located in Nashville, is responsible for uploading DNA profiles from forensic, offender, arrestee, missing persons, relatives of missing persons, and unidentified human remains indices to NDIS.
- 1.3 The local CODIS units located in the TBI labs in Knoxville and Memphis and at the Metro Nashville PD Crime Lab are responsible for uploading DNA profiles from forensic casework (including missing persons and unidentified human remains) and suspect indices to SDIS.
- 1.4 The state CODIS unit is responsible for searching DNA profiles received from the regional facilities against all profiles maintained at the state level.

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1.5 Quality Assurance/Quality Control

1.5.1 Proficiency Testing

- 1.5.1.1 All DNA analysts conducting casework, performing databasing verifications, or doing technical reviews of data from casework or verifications will participate in and report two external proficiency tests per year. Tests will be conducted as per the Quality Assurance Standards (QAS) Standard 13.
- 1.5.1.2 The Quality Assurance Manager will maintain the proficiency test documentation. The documentation will be provided to the state administrator and to NDIS as required for NDIS participation.
- 1.5.1.3 Problems related to proficiency testing will be handled as detailed in the Forensic Biology Unit Quality Assurance Manual and the TBI Quality Assurance Manual. The DNA technical leader must inform the state CODIS administrator of all non-administrative discrepancies that affect the proficiency typing results and/or conclusions.

1.5.2 Audits

- 1.5.2.1 The Forensic Biology Unit and CODIS Unit will be audited as required by the QAS Standard 15 and by the ANSI National Accreditation Board (8.8.1.1).
- 1.5.2.2 Audit documentation will be maintained and provided as required for NDIS participation.