

# FDDU

## Procedures for CODIS Entry and Uploading of Database DNA Profiles

### 1 Scope

These procedures apply to DNA personnel who use the **CO**mbined **DNA** Index **S**ystem (CODIS) software for the entry and uploading of DNA profiles from DNA database samples or perform searches in CODIS. CODIS functions as three separate tiers: the Local DNA Index System (LDIS), the State DNA Index System (SDIS) and the National DNA Index System (NDIS).

### 2 Equipment/Materials/Reagents

STACS (Sample Tracking and Control System) Software (STACS DNA Inc.), version 6.4 or higher.

CODIS (Combined DNA Index System) Software (FBI Laboratory), version 9.0 or higher

### 3 Procedures

#### 3.1 CODIS Specimen ID and Specimen Categories

**3.1.1** DNA profiles from database samples are entered into CODIS using a standardized format. Generally, the Specimen ID is the unique STACS Sample ID number for each sample (e.g., 2020-C000001).

**3.1.2** DNA profiles from database samples may be entered into one of the following Specimen Categories/CODIS Indexes:

- Convicted Offender
- Arrestee
- Detainee
- Multi-allelic Offender

**3.1.2.1** The Specimen Category/CODIS Index for each DNA profile is generally determined based on the *Contributor Type* selected in STACS for each sample (e.g., Offender DNA, Arrestee, Detainee, INTEL).

#### 3.2 Data Review Requirements Prior to CODIS Entry and Uploading

**3.2.1** All DNA profiles from database samples must undergo primary analysis (interpretation/review) and secondary analysis (technical review) by appropriately qualified and authorized DNA Examiners, or an NDIS approved and internally validated expert system, prior

to entry into CODIS. Interpretation/review of the data must be performed in accordance with the appropriate interpretation procedure (i.e., FDDU 315).

**3.2.2** For all database samples, analysis of all CODIS Core Loci must be attempted for CODIS entry and NDIS registration.

**3.2.3** Each CODIS User must complete the "Annual NDIS Eligibility Training" which is required per the *National DNA Index System Operational Procedures Manual* (NDIS procedures).

### **3.3 Entering and Uploading DNA Profiles into CODIS**

Profiles submitted to LDIS, SDIS and NDIS will be entered into the appropriate specimen category (e.g., Convicted Offender, Juvenile, Multi-allelic Offender, Arrestee, Detainee) and into the appropriate index (e.g., Offender, Multi-allelic Offender, Arrestee, Detainee).

**3.3.1** A CMF file containing DNA profiles is entered into LDIS by an active CODIS User. Data entry and uploading of DNA profiles will be performed following the NDIS procedures and training material/guides for the current version of the CODIS software.

**3.3.1.1** A DNA profile developed for a DNA database sample must include the minimum number of loci (e.g., 10) for entry into LDIS and SDIS according to parameters set by the LDIS and/or SDIS Administrator.

**3.3.2** If necessary, DNA profiles may be manually entered into or edited in LDIS using the CODIS software. DNA profiles that are manually entered into LDIS must be verified by a CODIS Administrator (or an active CODIS User with the appropriate CODIS privileges).

**3.3.3** The DNA profiles at LDIS are marked for upload to SDIS according to parameters set by the SDIS Administrator. Profiles not eligible for SDIS (e.g., staff profiles) will not be marked for upload.

**3.3.4** The DNA profiles at SDIS are marked for upload to NDIS according to parameters set by the NDIS Custodian.

**3.3.5** An active CODIS User must review the LDIS, SDIS and NDIS Reconciliation Reports and confirm or reject samples in the STACS *CODIS Confirmation* module. The decision to confirm or reject a sample is based on whether the sample was successfully entered into CODIS. If rejected, the entry and upload of sample(s) may be reattempted in a new CMF file or manually entered or edited as described above.

### **3.4 Routine Searches of the Database**

**3.4.1** Autosearches of LDIS must be conducted and any candidate matches reviewed before the DNA profiles are uploaded to SDIS. Autosearches of LDIS are based on the parameters set by the LDIS Administrator.

**3.4.2** Autosearches of SDIS are conducted based on the parameters set by the SDIS Administrator.

**3.4.3** Autosearches of NDIS are conducted based on the parameters set by the NDIS Custodian.

**3.4.4** An active CODIS User will routinely check the CODIS software for candidate matches.

### **3.5 Confirming and Releasing Matches**

**3.5.1** Until the confirmation of the match is ready for release, information regarding the match will be provided on a need-to-know basis.

**3.5.2** Matches will be verified and communicated by an appropriately qualified DNA Examiner as outlined in the appropriate DNA procedure (i.e., FDDU 311).

**3.5.3** If it is determined that duplicate database samples have been entered into CODIS, the duplicate sample may be unmarked in CODIS.

### **3.6 CODIS Search Requests**

**3.6.1** All CODIS Batch Target File search requests of LDIS/SDIS for DNA profiles from other NDIS participating laboratories will be evaluated by the LDIS and/or SDIS Administrator prior to initiating the search.

**3.6.2** One-time search requests of LDIS/SDIS for DNA profiles from other NDIS participating laboratories will be individually evaluated by the LDIS and/or SDIS Administrator prior to initiating a manual keyboard search.

**3.6.3** No “victim” or “suspect” searches will be conducted of the FBI LDIS/SDIS database DNA profiles.

### **3.7 System Operations - Backup and Security Procedures**

#### **3.7.1 CODIS**

**3.7.1.1** The LDIS backup will be conducted by an FBI employee or approved contractor.

**3.7.1.2** The backup will include all relevant drives and the registry from the LDIS server.

**3.7.1.3** The LDIS backup may be stored at an offsite location.

**3.7.1.4** In the event of an emergency and/or catastrophic loss, the LDIS backup may be used to restore the LDIS.

### **3.7.2 Security**

**3.7.2.1** Only authorized personnel will have physical access to the CODIS servers and terminals.

**3.7.2.2** All CODIS Users are responsible for security of the software.

**3.7.2.3** When a user is finished with a CODIS work session, the user will log out of CODIS. If the user has not completed their CODIS work session but needs to move to an area in which they can no longer visually observe the CODIS server/terminal, they must lock the screen or log out of CODIS.

**3.7.2.4** Additional information about CODIS security procedures can be found in the NDIS Procedures.

## **4 Standards and Controls**

Not applicable.

## **5 Sampling**

Not applicable.

## **6 Calculations**

Not applicable.

## **7 Measurement Uncertainty**

Not applicable.

## **8 Limitations**

Not applicable.

## **9 Safety**

Not applicable.

## **10 References**

DNA Procedures Manual

FBI Laboratory Quality Assurance Manual

National DNA Index System (NDIS) Operational Procedures Manual, current version

STACS DNA Inc. *Sample Tracking and Control System (STACS) User's Guide*.

Quality Assurance Standards for DNA Databasing Laboratories, current version.

Rev. #	Issue Date	History
4	12/09/16	Simplified entirety of document and made changes to reflect the expansion of the CODIS Core Loci.
5	07/15/20	Updated scope to apply to personnel. Updated current software versions. Replaced STR profile with DNA profile throughout. Added Multi-allelic Offender category Clarified the user/roles that can perform each task. Updated sections detailing loci requirements for upload to LDIS, SDIS and NDIS. Updated which CODIS Recon Reports must be reviewed before performing CODIS Confirmation in STACS. Added section about requirement to perform LDIS autosearch before upload to SDIS. Removed section about target batch file searches submitted via the FBI CODIS Unit and replaced with section about target batch file search requests from other NDIS laboratories. Removed details from Section 3.7 to make it more general since most activities are performed by CODIS contractors.

**Redacted - Signatures on File**

**Approval**

FDDU Chief

Date: 07/14/2020

DNA Technical Leader

Date: 07/14/2020

**QA Approval**

Quality Manager

Date: 07/14/2020