

Procedure for DNA Database Operations

1.0 Purpose – To outline the procedures for the operation of the DNA Database Section.

2.0 Scope – The procedures in this document apply to the DNA Database Section at the State Crime Laboratory.

3.0 Definitions

- **AOC (Administrative Office of Courts)** – Automated files containing information with regard to District and Superior Court cases. Queries can be performed by defendant name, check digit number, county and docket number. Results returned indicate status of case: pending, disposed, and unserved. Additional information includes: offense, general statute, disposition date, plea and verdict. Sentence and probation information are listed, along with special conditions as directed by the presiding Judge. Each county Clerk of Court enters the criminal process papers once served and tracks the record throughout the entire judicial process.
- **Administrative Review** – An evaluation of the report and supporting documentation for consistency with Laboratory policies and for editorial correctness.
- **Audit Trail** – A historical sequence recorded in SpecMan of status transitions pertaining to a specimen record, batch record, manifest record, expunction request record, or CODIS hit record. Contains the status changes, SpecMan user who changed the status, and date/time of status changes.
- **Batch** – A group of specimen records in SpecMan. Samples are stored or analyzed in batches.
- **Batch Record** – A record representing a group of samples in SpecMan which contains information including batch status, batch type and other characteristics, specimens contained within, audit trail, and notes.
- **Buccal/Cheek Swab Collector** – A device designed to collect cell samples from inside the cheek. The device contains filter paper, which is used to collect a cheek cell sample, a handle, and slider cover, which may be used to cover the filter paper and protect it from contamination.
- **CCH (NC Computerized Criminal History File)** – Criminal records of individuals who have been arrested and for whom the North Carolina State Bureau of Investigation has received a fingerprint card. These records are identified by a SID number ending with an “A.” These files contain the criminal history of an individual including arrest, court, and incarceration information for which an individual was arrested and fingerprinted. Search is performed by SID number or FBI number. Additional results returned are FBI rap sheet and out of state criminal information.
- **Check Digit Number** – An alphanumeric identifier assigned to each arrest. One of the primary functions of this number is to link criminal disposition data to the computerized criminal history file and specific arrest cycle contained within.
- **CODIS (Combined DNA Index System)** – The FBI’s national DNA identification system that allows for the storage and exchange of DNA records submitted by federal, state, and local forensic DNA laboratories.
- **CODIS Hit Record** – A record representing a CODIS hit in SpecMan which contains information including the CODIS Hit status, specimen number of the database sample the hit is in reference to, the evidence agency, the CODIS match ID, case number in FA, crime type, audit trail, and notes.
- **Combined technical and administrative review** – An evaluation of reports, notes, data, and supporting documentation to ensure that there is an appropriate and sufficient basis for the scientific conclusions as well as consistency with Laboratory policies and editorial correctness.
- **Database Sample** – A convicted offender or arrestee DNA sample.
- **DNA Databank** – The State repository for physical DNA Database samples.
- **DNA Database** – The State repository for DNA profiles.

- **DPS/Division of Adult Correction** – Contains information on North Carolina active inmates, probationers, and parolees. Results returned include active and inactive status. Information includes most recent period of incarceration record, including sentence begin date and release date. County of conviction, docket number, offense and felony or misdemeanor status is provided. Search is performed by offender name or various offender identification numbers including offender number, SID number, docket number, driver's license number and jail transport number.
- **EFN Number (Electronic Fingerprint Number)** – Electronic fingerprinting number used by Criminal Justice/Law Enforcement Agencies within North Carolina during the submission of LiveScan fingerprints in relation to the arrest process.
- **Expunction Request Record** – A record representing an expunction request in SpecMan which contains information including expunction request status, AOC file number, subject name and address, specimen number of the database sample the expunction request is in reference to, expunction request type, requesting agency, audit trail, and notes.
- **Expungement** – Removal of a DNA profile from the DNA Database, destruction of a convicted offender or arrestee sample from the DNA Databank, and a deletion of the DNA profile in CODIS.
- **FA (Forensic Advantage)** – The laboratory information management system for casework, used for tracking cases, evidence, reviews and CODIS confirmations.
- **FBI Number (Federal Bureau of Investigation Number)** – Unique alphanumeric identification number assigned to each individual who has a record within the FBI's Integrated Automated Fingerprint Identification System (IAFIS). A matching FBI number is a means of identifying a positive match between two individuals because it is tied to the submission of fingerprints.
- **Linked Rejected Specimen Number** – The specimen number of a rejected database sample that appears on the specimen record of the resubmitted sample.
- **NDIS Specimen Manager Module** – The CODIS program used to gain access to samples that have been uploaded to CODIS.
- **Offender Number (DPS)** – A unique seven digit numeric identifier assigned by North Carolina Department of Public Safety/Division of Adult Correction. This number is given to active/inactive inmates, probationers, and parolees.
- **Plate Position** – A two to three alphanumeric that is assigned to any sample being analyzed in-house. This sample corresponds to the well number on a 96-well plate when the batch is run robotically.
- **Post PCR Review** – Initial check of data generated by the primary Forensic Scientist as part of task-oriented analysis. The primary Forensic Scientist shall ensure complete profiles were generated for all samples and 2800M.
- **QC (Quality Control) Sample** – A specimen record created in SpecMan that represents a quality control sample. The QC sample specimen number is present in the specimen record of any database sample that is selected for QC reanalysis.
- **Qualifying Event** – An arrest or conviction that makes a database sample qualified for inclusion in CODIS pursuant to Article 13 of Chapter 15A of the North Carolina General Statutes.
- **Sample** – Epithelial cells collected using a buccal collector or blood.
- **Sequence Number** – A number (usually between one and eighty) assigned to a database sample after it has been assigned a batch. This number becomes part of the storage envelope number and is used for location purposes.
- **SID Number (State Identification Number)** – An alphanumeric identifier assigned by the North Carolina State Bureau of Investigation's Criminal Information and Identification Section. Fingerprint submission is required in order to establish a North Carolina Computerized Criminal History record. A matching SID number is a way to identify a positive match between two individuals because it is tied to the submission of fingerprints.
- **Specimen Record** – A record representing a database sample in SpecMan which contains information including specimen status, personal identifiers (name, date of birth, gender, race),

numerical identifiers, sample collection information, offense information, processing information, audit trail, and notes.

- **SpecMan** – The identification data management system for convicted offenders and arrestees, used for tracking and automating the processing of database samples up to the point that they are uploaded to CODIS.
- **Storage Envelope Number** – A number assigned to a sample after it has been batched. This number contains the batch number and a sequence number. Samples received during or after 2011 are stored in the DNA Databank according to the storage envelope number.
- **Technical Review** – An evaluation of reports, notes, data, and other documents to ensure there is an appropriate and sufficient basis for the scientific conclusion.
- **Work Product** – The material that is generated as a function of analysis and includes amplified product, amplification tubes or plates, and 96 well plates used in analysis.

4.0 Equipment – N/A

5.0 Procedure

5.1 Goals/Objectives

- 5.1.1** Provide a repository for DNA samples from individuals pursuant to Article 13 of Chapter 15A of the North Carolina General Statutes.
- 5.1.2** Analyze, interpret data and develop DNA profiles from database samples in the Databank (repository) for entry into the Combined DNA Index System (CODIS) operated by the FBI.
- 5.1.3** Perform confirmation analysis on CODIS hits.
- 5.1.4** Process expungement requests as received within the statutorily required period as cited in N.C.G.S 15A-266.3A.

5.2 Responsibilities

5.2.1 DNA Database Forensic Scientist Manager

- 5.2.1.1** Manage Database employees.
- 5.2.1.2** Supervise interns or assign a DNA Database Forensic Scientist designee to perform supervisory duties.
- 5.2.1.3** Ensure the Section has procedures where required.
- 5.2.1.4** Ensure that the procedures are followed.
- 5.2.1.5** Work with the Technical Leader to ensure validations and procedural modifications are performed as needed.
- 5.2.1.6** Work with the Technical Leader to approve any variations in procedures.
- 5.2.1.7** Respond to or assign a designee to respond to requests from criminal justice/governmental agencies regarding Database information and release

information only as specified in Article 13 of Chapter 15A of the North Carolina General Statutes.

- 5.2.1.8** Authorize removal of Database samples from databank.
- 5.2.1.9** Disseminate or assign a designee to disseminate CODIS hits among DNA Database Forensic Scientists, request subject information assessments, and perform combined technical/administrative reviews of CODIS hits.
- 5.2.1.10** Ensure the initiation of the processing of expungement requests upon receipt of the AOC-CR-640 verification form by creating the expunction request record in SpecMan for compliance within the statutorily required period.
- 5.2.1.11** Ensure the assignment of expungement requests to Criminal Justice Specialists and DNA Database Forensic Scientists, verify the removal of the DNA record from all applicable locations, witness the destruction of samples and collection cards which qualify for expungement, and complete the final verification step within SpecMan confirming completion of the expungement process.
- 5.2.1.12** Ensure the notification of the vendor laboratory in writing of samples approved to be expunged (if samples were analyzed at a Contract Laboratory) and ensure attachment of the written request as well as the vendor reply documenting compliance to the expunction request record for the specimen in SpecMan.

5.2.2 Forensic Scientist Supervisor

- 5.2.2.1** Supervise Database employees.
- 5.2.2.2** Respond to requests from criminal justice/governmental agencies regarding Database information and release information only as specified in Article 13 of Chapter 15A of the North Carolina General Statutes.
- 5.2.2.3** Other duties as assigned by the Forensic Scientist Manager.

5.2.3 DNA Database Forensic Scientists

- 5.2.3.1** Respond to requests from criminal justice/governmental agencies as to whether a DNA sample from a particular person is on file.
- 5.2.3.2** Receive and process Database samples.
- 5.2.3.3** Perform analysis of Database samples.
- 5.2.3.4** Interpret data and develop DNA profiles from Database samples.
- 5.2.3.5** Complete CODIS confirmations and perform verification and technical reviews.
- 5.2.3.6** Enter profiles into CODIS.
- 5.2.3.7** The DNA Database Section shall be responsible for the analysis and upload of

staff, vendor, or visitor profiles to be included in the “Staff” index in CODIS. Profiles shall be uploaded to CODIS within 15 business days of receipt of sample or as soon as practical thereafter.

- 5.2.3.8 Process approved expungement requests; remove the DNA profile of the sample from the DNA Database, destroy the sample retained within the Databank, and delete the DNA record from all applicable locations within the statutorily required time period.

5.2.4 Criminal Justice Specialists (CJS)

- 5.2.4.1 Respond to requests from criminal justice/governmental agencies as to whether a DNA sample from a particular person is on file.
- 5.2.4.2 Receive and process Database samples.
- 5.2.4.3 Generate subject information assessments upon request from Forensic Scientist Manager or designee.
- 5.2.4.4 Process assigned expunction requests to completion and generate approval/denial expunction letters for mailing within the statutorily required time period.
- 5.2.4.5 Complete criminal history queries as requested for Crime Laboratory applicants and intern applicants.

5.2.5 Temporary Employees

- 5.2.5.1 Respond to requests from criminal justice/governmental agencies as to whether a DNA sample from a particular person is on file.
- 5.2.5.2 Receive and process Database samples.

5.2.6 CODIS Administrator/Assistant CODIS Administrator

- 5.2.6.1 Respond to requests from criminal justice/governmental agencies regarding Database information and release information only as specified in Article 13 of Chapter 15A of the North Carolina General Statutes.
- 5.2.6.2 Obtain CODIS hits and notify Forensic Scientist Manager of CODIS hits.
- 5.2.6.3 Expunge profiles of individuals who do not have a qualifying event.
- 5.2.6.4 Send letter to requesting NDIS/LDIS laboratory upon completion of a CODIS hit.
- 5.2.6.5 Verify the deletion of profiles entered into CODIS which qualify for expunction within the statutorily required time frame.

5.2.7 Laboratory Legal Counsel

- 5.2.7.1 Respond to requests regarding whether a sample is acceptable or whether a

sample has a qualifying offense.

5.2.7.2 Review the subject information assessment and supporting documentation when there is a CODIS hit to a sample that may not have a qualifying offense.

5.2.7.3 Review the assigned expunction requests and provide legal review/recommendation for the approval or denial. This recommendation shall be documented in SpecMan.

5.3 Procedures for the Receipt and Processing of Database Samples

5.3.1 Sample Origin

5.3.1.1 Database samples originate from DPS/Division of Adult Correction and law enforcement agencies throughout the state. DNA samples received shall be in one of the following forms: a buccal collector or a purple-top tube of blood. Alternate DNA samples (in the form of a fingerstick kit) shall be allowed for submission on individuals from whom it is difficult to draw blood.

5.3.1.2 Database samples are not evidence. These samples are used as a reference library.

5.3.2 Receipt of Database Samples

5.3.2.1 Database samples shall be collected by use of State Crime Laboratory standardized, approved kits.

5.3.2.2 Database samples may be received in the Laboratory either in person via hand delivery, through the U.S. mail, or through other delivery methods (i.e., courier service, inter-office mail).

5.3.3 Documentation

5.3.3.1 Corrections to collection cards shall be made with a single strike through of the record and shall be initialed and dated.

5.3.3.2 Any additional information added to the collection card shall also be initialed and dated.

5.3.3.3 Any typed notes added to a specimen record in SpecMan shall be initialed and dated. Comments are not required for attachments that are scans of documents from the agency.

5.3.3.4 Any telephone call made to the submitting agency to obtain information about a sample shall be documented in the note section of the specimen record. At a minimum, the following shall be included: the name of the individual and agency, the date of call, and a summary of the conversation. The note shall be initialed and dated by the individual making the call.

5.3.4 Electronic Records

5.3.4.1 Information regarding the processing of Database samples including accessioning, analysis, review, CODIS hit confirmations, and expunction requests shall be stored electronically in SpecMan. An audit trail for each sample shall be maintained in this system.

5.3.4.2 DNA profiles shall not be stored in SpecMan.

5.3.4.3 CODIS hit confirmations, proficiency tests, and training samples (if applicable) shall be entered and stored in FA. Analysis of Database samples not related to CODIS hits performed by the Database Section shall not be entered or stored in FA.

5.3.5 Sample Security and Storage

5.3.5.1 All work products shall be stored as stated in the applicable DNA Database Section procedures.

5.3.5.2 Samples shall be maintained in a secure area at all times. When being analyzed, samples shall remain in the care and custody of the DNA Database employees working the samples.

5.3.5.3 DNA Database Forensic Scientists shall lock the mobile storage systems containing arrestee and offender samples when not in use.

5.3.5.4 See the DNA Database Section Procedure for Sample Accessioning and Processing for section policies on handling, processing, and retention of Database samples.

5.4 Access to Data and Information

5.4.1 General Operating Procedures

5.4.1.1 Access to information in the Database and Databank is permitted only as specified in Article 13 of Chapter 15A of the North Carolina General Statutes. All other requests for information shall be denied. Requests for information shall be accepted only from law enforcement or criminal justice agencies, or governmental forensic science laboratories. Requests from private forensic laboratories shall not be honored.

5.4.1.2 The identity of any person/agency making a request for information shall be verified prior to the release of any information. To verify the identity of the person requesting the information, the Database employee shall obtain the individual's name, agency name and a contact telephone number. The Database employee shall obtain the requested information and then call the requesting individual back with the information.

5.5 Analysis of Database Samples to Develop DNA Profiles

5.5.1 Removal of Samples from Databank

5.5.1.1 The Forensic Scientist Manager may authorize removal of database samples

from the Databank under the following circumstances: routine testing of samples for inclusion in the Database, confirmation of CODIS hits, punching extra samples for QC testing or random reanalysis, verification of duplicate samples, and validations. Only sufficient specimen for testing purposes shall be removed. Removal of samples for any purpose other than those designated above shall be done only with the written approval of the Forensic Scientist Manager.

5.5.1.2 When removed from the Databank for analysis, the pouch containing the sample shall be opened, and sufficient sample for testing shall be removed. Aseptic technique shall be used to punch one sample at a time.

5.5.1.3 Resealed pouches shall be returned to the DNA Databank.

5.5.2 Removal of Ineligible and Duplicate DNA Profiles from CODIS

5.5.2.1 If a database sample is determined to be ineligible for collection after the profile has been entered into CODIS, the following steps shall be taken to remove the profile from CODIS:

5.5.2.1.1 The DNA profile shall be deleted by the CODIS Administrator/Assistant CODIS Administrator from CODIS using the NDIS Specimen Manager Module. The reason for the deletion of the profile shall be noted by the CODIS Administrator/Assistant CODIS Administrator and a comment made in the comments section of the SDIS Specimen Delete Report.

5.5.2.1.2 The CODIS Administrator/Assistant CODIS Administrator shall update the status of the database sample in SpecMan from “Stored – Entered in CODIS” to “Stored-Removed from CODIS” and make a note in the notes portion of the specimen record in SpecMan regarding the deletion.

5.5.2.1.3 A DNA Database Forensic Scientist shall either assign the sample to the appropriate batch type as described in the Analysis Batch Assignment Section in the DNA Database Section Procedure for Sample Accessioning and Processing and change the status to “Stored-Rejected” or change the status to “Rejected-Pending Return” and process the sample as described in the Rejection Processing Section in the DNA Database Section Procedure for Sample Accessioning and Processing.

5.5.2.2 If a routine search of CODIS indicates a potential duplicate database sample, the guidelines as outlined in the Procedure for CODIS shall be followed.

5.5.2.2.1 When notified by the CODIS Administrator/Assistant CODIS Administrator of a potential duplicate sample that is unable to be resolved, the Forensic Scientist Manager shall assign the two samples to a CJS for review. The CJS may access law enforcement

databases and/or resources to verify the identifiers/information located in each specimen record in SpecMan to determine if the samples are from the same individual.

- 5.5.2.2.2** If the samples are determined to be from different individuals, the CODIS Administrator/Assistant CODIS Administrator shall be notified and the specimen category in CODIS shall remain unchanged. The CJS shall update the notes of each specimen record in SpecMan with the appropriate documentation.

5.5.3 Database Samples Analyzed In-House

- 5.5.3.1** Database samples shall be processed in batches. Each Database sample shall be assigned a batch after its eligibility has been verified. This batch number shall be located on all documents generated as part of that batch process, along with the date the document was produced and the initials of the person generating the record. Any batch in the “Stored – Pending Analysis” status (“Pending QC Prep” status for internal QC batch types or “Open” for rerun batch types) shall be available for analysis.

- 5.5.3.2** Before analysis, the DNA Database Forensic Scientist shall complete the following steps:

- 5.5.3.2.1** Change the batch status to “Extraction and Amplification.” SpecMan assigns plate positions. SpecMan does not allow a batch to be saved in “Extraction and Amplification” status if the eligibility of any Database sample within that batch has not been verified.

- 5.5.3.2.2** Retrieve the Database samples from storage. If this is a QC batch type, the QC Batch report shall also be printed.

- 5.5.3.3** The DNA Database Section shall process Database samples robotically (see DNA Database Section Procedure for Qiagen BioRobot® Universal Using PowerPlex® Fusion) or manually (see DNA Database Section Procedure for Amplification with PowerPlex® Fusion).

Once the lab work has been completed, the batch status shall be changed to “In Analysis.” Database samples run in-house shall be analyzed, reviewed, and uploaded per procedures in the DNA Database Section Procedure for DNA Database Analysis and Technical Review of Database Samples Amplified with PowerPlex® Fusion.

5.5.4 Rerun Samples

- 5.5.4.1** Database samples that fail analysis and are in a status of “Rejected – Reprocess” shall be handled by a designated DNA Database Forensic Scientist.

- 5.5.4.2 In-House and QC Reruns**

5.5.4.2.1 The DNA Database Forensic Scientist shall examine the reason for rejection and determine if the sample shall be assigned to a robotic batch or a manual batch, or if resubmission is required.

NOTE: If a confirmation sample is rejected, refer to the “Rejection Processing” portion of the DNA Database Section Procedure for Sample Accessioning and Processing.

5.5.4.2.2 If resubmission is required, a rejection reason(s) for the sample shall be selected. A DNA Database Forensic Scientist designated to handle resubmissions shall be notified to contact the appropriate agency so that a new sample can be obtained. If there is an associated batch number or an associated vendor batch number with this specimen record, it shall be removed by the DNA Database Forensic Scientist. Proceed with the “Rejection Processing” portion of the DNA Database Section Procedure for Sample Accessioning and Processing.

5.5.4.2.3 If resubmission is not required, and the sample is not a QC sample, it shall be assigned to an open batch with batch reason rerun, appropriate rerun method (robotic or manual), and appropriate batch type (blood or buccal).

5.5.4.2.4 If the sample can be assigned to another batch and is a QC sample, it shall be assigned to a “Pending QC Prep” status batch with batch reason QC, appropriate rerun method (robotic or manual), and appropriate batch type (blood or buccal).

5.5.4.2.4.1 A note shall be added to the batch record for all QC batches stating that it was created for the rerun of QC samples. This same note shall be added to the QC specimen record as well.

5.5.4.2.5 Once the samples have been assigned to a batch, the batch shall be processed as outlined in the section of this document titled “Database Samples Analyzed In-House” starting with **5.5.3.2**.

5.5.5 Confirmation Testing

5.5.5.1 Database samples that are in a status of “Stored – Pending Confirmation” shall be processed by a designated DNA Database Forensic Scientist (e.g., suspected duplicate samples).

5.5.5.2 Samples shall be assigned to confirmation batches using procedures in Confirmation Batches in DNA Database Section Procedures for Sample Accessioning and Processing.

- 5.5.5.3** Confirmation batches shall be processed manually or robotically as outlined in the section of this document titled “Database Samples Analyzed In-House” starting with **5.5.3.2**.
- 5.5.5.4** Once the batch is in “Review Complete” status, each profile from the reanalysis shall be compared to the corresponding original profile to ensure concordant results are obtained.
- 5.5.5.4.1** If a suspected duplicate has been found to have originated from a different person other than the original specimen, the specimen status for the suspected duplicate shall be changed to “Reject – Reprocess.” It shall be assigned to an open regular or rerun batch, and appropriate batch type (blood or buccal). The specimen status shall be changed to “Stored – Pending Analysis.” Once assigned a batch, the sample shall be analyzed, reviewed, and uploaded per procedures in the DNA Database Section Procedure for DNA Database Analysis and Technical Review of Database Samples. The data and documentation generated from the confirmation testing analysis shall serve as the final analysis for upload.
- 5.5.5.4.2** If any other two profiles as listed in **5.5.5.4** are not concordant or there are any other problems encountered related to the confirmation, the Forensic Scientist Manager shall be notified. The Forensic Scientist Manager shall determine the correct course of action.
- 5.5.5.5** After comparison, the information in each specimen record shall be examined. To determine if the resubmission option shall be changed to “no,” refer to the “Rejection Processing” portion of the DNA Database Section Procedure for Sample Accessioning and Processing.
- 5.5.5.6** Once this is complete, the batch status shall be changed to “Stored – Confirmed.”

5.6 CODIS Hit Procedures

5.6.1 Initial Laboratory Procedures

- 5.6.1.1** For each CODIS hit, the CODIS Administrator, Assistant CODIS Administrator, or Forensic Scientist Manager shall request that a subject information assessment be generated (see **5.6.3**), which shall include at a minimum, verification of the individual’s qualifying conviction or arrest and incarceration status on the date of event in question. This information may be obtained by accessing databases including, but not limited to, the North Carolina Department of Public Safety/ Division of Adult Correction website, the Administrative Office of the Courts (AOC), the Computerized Criminal History records (CCH), and any law enforcement database resource containing criminal record information. The assessment may include a complete criminal history on the individual.

5.6.1.1.1 During the generation of the subject information assessment, if it is determined that the individual may not have a qualifying conviction or arrest, follow the procedures described in **5.6.4**.

5.6.1.2 The CODIS Administrator, Assistant CODIS Administrator, or Forensic Scientist Manager shall create a new CODIS hit record and record the pertinent information in SpecMan. This information may include but is not limited to: specimen (if known), type of hit (offender or forensic), specimen reason (offender or arrestee), SBI search warrant (yes/no), level of hit (NDIS/SDIS), the hit date, the evidence agency, the date of crime, and indication of in-state vs. out-of-state, the crime type, and the Match ID. (Hits occurring to Charlotte-Mecklenburg Police Department (CMPD) are considered in-state in SpecMan.) The status shall be changed to “Pending Assignment” and assigned to a DNA Database Forensic Scientist.

5.6.1.3 If a database sample has had a previous CODIS hit, follow the instructions listed below.

5.6.1.3.1 For DNA Database confirmation case records:

5.6.1.3.1.1 The bench notes (to include a PDF of FA worksheets) and raw data generated from the original confirmation may be used in lieu of a second confirmation.

NOTE: If the state match detail report from the original confirmation is included in the bench notes, any case specific information shall be redacted prior to adding the original bench notes to the current case record.

5.6.1.3.1.2 A new case record, confirmation keyboard search, lab report, subject information assessment, and CODIS letter (out-of-state/CMPD hit) shall be created.

5.6.1.3.2 For Latent confirmation case records:

5.6.1.3.2.1 The bench notes (to include a PDF of FA worksheets) and a PDF copy of the latent memo from the original confirmation may be used in lieu of a second confirmation.

5.6.2 CODIS Hit Confirmations

5.6.2.1 Upon assignment in SpecMan, the DNA Database Forensic Scientist shall obtain the Individual Specimen Report and update the CODIS Hit status to Hit Confirmation Pending.

5.6.2.2 The Forensic Scientist Manager or designee shall retrieve the database sample from the DNA Databank.

5.6.2.3 A case record shall be created in FA.

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- 5.6.2.3.1** An in-state hit occurs between the State Crime Laboratory forensic unknown and a convicted offender/arrestee in the NC database. The case number assigned to the confirmation in FA is the same number as the original case number assigned to the evidence.
- 5.6.2.3.2** An out-of-state or CMPD hit occurs between a forensic unknown from another state or CMPD and a convicted offender/arrestee in the NC database. A case number shall be generated in FA for the confirmation.
- 5.6.2.4** The DNA Database Forensic Scientist shall take a punch from the database sample and perform the confirmation analysis. Punches shall be taken in the same manner as described in the Procedure for PCR Amplification with Powerplex Fusion. The lab work for a CODIS hit confirmation shall be performed following standard section procedures. If multiple hits are batched together, a CODIS hit batch number shall be used on the associated paperwork. Batches shall be named to include the date of punching and the primary or secondary Forensic Scientist's initials (e.g. ABC_1.1.2011). GeneMapper ID-X projects or other documentation that is sample specific shall also contain the sample number in the project name (e.g ABC_2010-00001_1.1.2011). The project name may be extended to include an abbreviation designating the sample reason of AR for arrestee or CO for convicted offender.
- 5.6.2.5** The bench notes from the confirmation analysis shall be imported into the Case Record Object Repository in FA in a non-editable format. The case record shall be scheduled for technical review. The technical review shall be completed in FA and shall include at a minimum:
- 5.6.2.5.1** A review of all notes, all worksheets, and all electronic data (used and unused).
- 5.6.2.5.2** A review of the allele call table to ensure only the profile associated with the hit is present.
- 5.6.2.5.3** A review of all DNA types to verify that they are supported by the raw or analyzed data (electropherograms or images). Raw data must be present in the case record object repository.
- 5.6.2.5.4** A review of all controls, internal lane standards, and allelic ladders to verify that the scientifically expected results were obtained.
- 5.6.2.5.5** A review of any reworked samples to confirm that the samples have appropriate controls.
- 5.6.2.5.6** A review of the FA case record object repository to ensure that it includes: the DNA Database Forensic Scientist's CV (primary and secondary scientist, if applicable), the State Match Detail report, the Individual Specimen report, expected results, the raw data, the

GMID-X project, the case notes, and the scanned DNA database card. No objects in the case record object repository shall exist in an editable format.

5.6.2.5.7 Technical Issues: If during the course of a review, the reviewer and DNA Database Forensic Scientist are unable to resolve a technical issue, the Technical Leader shall be notified of the issue by the DNA Database Forensic Scientist. The Technical Leader shall then determine and/or approve the appropriate course of action.

5.6.2.6 After the technical review is complete, the DNA Database Forensic Scientist shall update the profile in CODIS with PowerPlex Fusion data (if necessary), perform the confirmation keyboard search of the profile in CODIS, and generate the lab report. The confirmation keyboard search shall allow verification of concordant profiles from the original analysis of the profile and secondary reanalysis due to the hit confirmation. The confirmation keyboard search of CODIS shall be imported into the case record object repository in FA for the confirmation in a non-editable format.

5.6.2.6.1 If the confirmation keyboard search of the convicted offender/arrestee profile produces anything other than a high stringency match at all loci searched or the original convicted offender/arrestee profile is incomplete in CODIS, then the DNA Database Forensic Scientist shall notify a DNA Database Forensic Scientist Supervisor or DNA Database Forensic Scientist Manager before proceeding on with the confirmation. The DNA Database Forensic Scientist Supervisor or DNA Database Forensic Scientist Manager shall review the results and determine the correct course of action.

5.6.2.6.2 If the confirmation keyboard search of the convicted offender/arrestee profile does not match the original convicted offender/arrestee profile within CODIS, then the DNA Database Forensic Scientist shall notify both the Forensic Scientist Manager and the CODIS Administrator who shall determine the correct course of action. The CODIS Hit record status shall be changed to "CODIS Hit Not a Match" in SpecMan as determined by the CODIS Administrator and Forensic Scientist Manager.

5.6.2.6.3 If the CODIS hit is for a sample determined not to have a qualifying offense and the profile has been removed from CODIS, the confirmation will ensure the keyboard search does not match another convicted offender/arrestee profile.

5.6.2.7 The CODIS hit case record (including the confirmation and lab report) shall be scheduled for a combined technical and administrative review to be completed by the Forensic Scientist Manager/designee. The combined technical and administrative review shall be completed in FA and shall include at a minimum:

5.6.2.7.1 Verification that the supporting documentation is present in FA and includes:

5.6.2.7.1.1 Bench notes, confirmation keyboard search, lab report, and any additional supporting documentation.

5.6.2.7.1.2 Subject information assessment (in SpecMan CODIS hit record).

5.6.2.7.1.3 Database worksheets and report.

5.6.2.7.2 The Forensic Scientist Manager/designee reviews the confirmation keyboard search page to verify concordance between the convicted offender/arrestee's profile from reanalysis to the convicted offender/arrestee's profile in CODIS (if the profile remains in CODIS).

5.6.2.7.3 The Forensic Scientist Manager/designee reviews the Lab report to ensure that the information pertaining to the individual associated with the hit is documented appropriately and that the dates associated with the hit, disposition of the sample, and comment on type of sample are in accordance with the chain of custody established in FA.

5.6.2.8 For in-state hits, after the combined technical and administrative review and latent verification, the Forensic Scientist shall notify the CODIS Administrator using the FA mail system. The email serves as notification that the confirmation/verification is complete. The DNA Database Forensic Scientist shall leave the hit case record in a status of "Pending Release" in FA. For further processing of in-state hits (including notification of investigating agency), see the CODIS Procedures.

5.6.2.8.1 Upon receipt of the completed DNA database confirmation and latent verification FA mail message, the CODIS Administrator or designee shall issue a CODIS HIT notification report to the investigating agency. In conjunction with the release of the notification report, the DNA database confirmation and latent verification case records shall be released in FA. This ensures that all pertinent information regarding the hit is released at approximately the same time. At this time, the CODIS Administrator or designee shall change the hit status to "CODIS Hit Confirmed" in SpecMan.

5.6.2.8.2 If it is determined during the subject information assessment that there is no qualifying offense for the sample and the DNA Database is not entitled to a sample for a subsequent qualifying offense, the CODIS Administrator or designee shall notify the DNA Database Forensic Scientist and Latent Analyst (or qualified DNA Database

Forensic Scientist) to “Terminate” the case record in FA after all analysis and reviews are completed. The CODIS Administrator or designee shall change the hit status in SpecMan to “CODIS Hit Terminated- Confirmed.” The records shall be reactivated and released at the direction of the CODIS Administrator or designee pursuant to an approved court order.

5.6.2.8.3 If it is determined during the subject information assessment there is no qualifying offense for the sample, but the DNA Database is entitled to a sample for another qualifying offense, an attempt to obtain a new sample for analysis and upload into CODIS shall be made. The hit associated with the new sample shall be subsequently confirmed. If an eligible sample exists in storage, it shall be used. If an eligible sample is not in storage, a request to the appropriate agency (e.g., correctional institution) shall be made at the direction of the Forensic Scientist Manager/designee. This request shall be documented in the notes portion of the CODIS hit record in SpecMan. The CODIS Administrator or designee shall change the hit status in SpecMan to “CODIS Hit Terminated- Not Confirmed” if terminated before analysis was complete in FA. If the DNA Database is unable to obtain the new sample, follow the procedures outlined in **5.6.2.8.2** for processing the confirmation.

5.6.2.9 For out-of-state hits/CMPD hits, after the combined technical and administrative review by the Forensic Scientist Manager or designee, the DNA Forensic Scientist shall release the lab report for the confirmation case record in FA. A letter is subsequently generated by the DNA Database Forensic Scientist to the requesting NDIS/LDIS laboratory. The CODIS Administrator or designee shall perform a combined technical and administrative review on the letter for clerical accuracy and sign the letter and change the hit status to “CODIS Hit Confirmed” in SpecMan. The signed letter shall be scanned into the case record object repository in FA. The letter with the individual’s identifying information is then mailed to the requesting NDIS/LDIS laboratory.

5.6.2.9.1 If it has been determined during the subject information assessment that there is no qualifying offense, the letter shall only contain the specimen ID number.

5.6.2.10 All confirmation analysis and review documentation shall be retained within FA.

5.6.2.11 CODIS hit confirmation analysis shall additionally serve as random reanalysis of outsourced database samples.

5.6.2.12 If a stop work request is received on a CODIS hit confirmation, the DNA Database Forensic Scientist shall terminate the CODIS Hit Record in FA and ensure that the Latent Analyst’s (or qualified DNA Database Forensic

Scientist's) verification record is also terminated. The reason for the CODIS hit termination shall be cited in the case record communication log. The status of the CODIS Hit shall be changed to "CODIS Hit Terminated – Confirmed" in SpecMan if confirmed or changed to "CODIS Hit Terminated – Not Confirmed" if it was terminated before analysis was complete in FA.

5.6.3 Generation of Subject Information Assessments

5.6.3.1 Only the CJS or designated DNA Database employees who have completed the required Omnixx, CJLEADS and NCAWARE training shall generate a Subject Information Assessment.

5.6.3.2 The request to generate a Subject Information Assessment (SIA) shall be sent via email to the CJS by the Forensic Scientist Manager or designee. The email may contain, but is not limited to, the following information:

5.6.3.2.1 Offender or Arrestee Specimen ID number.

5.6.3.2.2 Name, Race and Sex of the Offender/Arrestee.

5.6.3.2.3 Date, Place, and Offense of the crime to which the hit occurred.

5.6.3.2.4 Analyst to whom the SIA should be provided (in SpecMan CODIS hit record).

5.6.3.3 The SIA shall be peer reviewed and a note added to the SpecMan CODIS hit record indicating agreement with the SIA. The SIA shall be reviewed subsequently by the Forensic Scientist Manager or designee as part of the CODIS hit confirmation combined technical and administrative review.

5.6.3.4 To create the SIA the CJS shall:

5.6.3.4.1 Access SpecMan and query the offender or arrestee in order to access and print to PDF a copy of the Individual Specimen Report to be retained as part of the SIA file in the notes section of the SpecMan CODIS hit record.

5.6.3.4.2 Obtain a current copy of the DNA Database Collection Card to be retained in the SIA file.

5.6.3.4.3 Access the Department of Public Safety/Division of Adult Correction website and query the individual. Any information obtained on the individual shall be printed to PDF and retained within the SIA file.

5.6.3.4.4 Access Omnixx to obtain and verify the individual's qualifying event. During this time the CJS shall ensure the card prepared date for the sample corresponds to the arrest or conviction date of the individual. Any information obtained from the Omnixx query shall be printed to PDF and added to the SIA file. A note shall be added

to the SpecMan CODIS record indicating a whether there is a qualifying offense.

5.6.3.4.5 All information obtained from the queries of law enforcement databases (e.g., CJLEADS, NCAWARE) shall be retained in PDF.

5.6.3.5 The CJS shall perform a review of the individual's DPS/Division of Adult Correction (if applicable) and CCH records to verify the individual was not incarcerated on the date of crime to which the hit occurred. If needed, request the individual's movement record through DPS/Division of Adult Correction. A note shall be added to the SpecMan CODIS record indicating whether the individual was incarcerated on the date of offense (the Forensic Scientist Manager/designee shall be notified if the individual was incarcerated on the date of offense and will determine the appropriate course of action).

5.6.4 Subject Information Assessments Requiring Legal Review

5.6.4.1 The CJS responsible for generation of the SIA shall notify the Forensic Scientist Manager if a sample may not have a qualifying offense.

5.6.4.2 The Forensic Scientist Manager (or designee) shall change the specimen status from "Stored – Entered in CODIS" to "In CODIS No QO – Pending Legal Review" and notify Laboratory legal counsel.

5.6.4.3 Laboratory legal counsel shall review the subject information assessment and supporting documentation.

5.6.4.3.1 Legal counsel shall forward any recommendation to the CODIS administrator for final resolution.

5.6.4.3.2 If the determination is made that the sample does not have a qualifying offense, the CODIS Administrator shall delete the profile from CODIS as described in Procedures for CODIS and a note shall be added to the specimen record in SpecMan explaining the reason for deletion and the CODIS Administrator's initials. In addition, the same note shall be made in the NDIS Specimen Manager Module.

5.6.4.3.3 The CODIS Administrator shall change the specimen status to "Stored – Removed from CODIS" in SpecMan. The Forensic Scientist Manager shall be notified of the profile removal from CODIS.

5.6.4.3.4 The Forensic Scientist Manager/or designee notifies the designated Database employee who changes the specimen status to "Rejected – Pending Return" or "Stored – Rejected." If returned, the sample is to be returned to the agency as outlined in "DNA Database Procedure for Sample Accessioning and Processing."

6.0 Limitations – N/A

7.0 Safety - N/A

8.0 References

State Crime Laboratory Safety Manual

DNA Database Section Administrative Policy and Procedure

DNA Database Section Administrative Procedure for Safety and Hazardous Waste Disposal

DNA Database Section Procedure for Autosomal DNA STR Interpretation with PowerPlex® Fusion

DNA Database Section Procedure for DNA Database Analysis and Technical Review of Database Samples Amplified with PowerPlex® Fusion

DNA Database Section Procedure for DNA Database Training Program for PowerPlex® Fusion

DNA Database Section Procedure for DNA Reagent Quality Control

DNA Database Section Procedure for Expungement of Arrestee and Convicted Offender Samples

DNA Database Section Procedure for GeneMapper ID-X

DNA Database Section Procedure for Instrument and Equipment Quality Control

DNA Database Section Procedure for PCR Amplification with PowerPlex® Fusion

DNA Database Section Procedure for Qiagen BioRobot® Universal Using PowerPlex® Fusion

DNA Database Section Procedure for Sample Accessioning and Processing

DNA Database Section Procedure for Sample Accessioning and Processing Training

DNA Database Section Procedure for Sample Processing Quality Control

DNA Database Section Procedure for Use of the 3500xL Genetic Analyzer

Procedure for CODIS

9.0 Records – This document provides an overview of procedures written in additional detail in specific DNA Database documents. To see records required for particular procedures, reference the appropriate document listed in the references section.

- CODIS Letter
- DNA Database Training Logs

10.0 Attachments – N/A

Revision History		
Effective Date	Version Number	Reason
08/12/2015	1	Original Document adopted from DNA Database Section Procedure, Version 4
10/09/2015	2	Replace Information Processing Technician and IPT with Criminal Justice Specialist and CJS throughout; 5.5.5.4.2 - updated reference to 5.5.5.4; 5.6.2.8.3—changed reference from 5.6.2.9.2 to 5.6.2.8.2
12/21/2015	3	3.0 add Combined Tech/Admin definition, add Post PCR review definition; Removed original 5.5.3.2.2 and NOTE in 5.5.3.3; 5.5.4.2.1 removed specimen note requirement; 5.6.2.4 updated batch naming requirements; 5.6.2.5 removed FA messaging; 5.6.2.3 and 5.6.2.5.6 remove scanned thumb prints, add primary/secondary scientist; 5.6.2.6 add update CODIS; 5.6.2.8.1 remove FA messaging to release reports.