Procedure for CODIS

1.0   Purpose – The purpose of this document is to define the responsibilities of CODIS Users, to provide procedures for profile management in CODIS, to explain CODIS systems operation, and to outline CODIS hit procedures. The goal of the CODIS system is to provide a means for known DNA profiles to be searched against unknown DNA profiles potentially providing investigative information that could solve a crime.

2.0   Scope – The procedures in this document apply to all CODIS related functions performed by CODIS Users in the Forensic Biology and DNA Database Sections of the State Crime Laboratory. In addition, the procedures contained herein are established to comply with the National DNA Index System (NDIS) Acceptance Standards Operational Procedures.

3.0   Definitions

- **Arrestee** – A known sample from an individual ARRESTED for an offense in North Carolina that is specifically obtained pursuant to North Carolina law.   The DNA record for this specimen category is stored in the Arrestee Index.
- **Arrestee – State** - A known sample from an individual ARRESTED for an offense in North Carolina that is specifically obtained pursuant to North Carolina law and is eligible for upload to SDIS, but not NDIS.   The DNA record for this specimen category is stored in the Arrestee Index.
- **Candidate Match** – A possible match between two or more DNA profiles discovered by CODIS software. A qualified Forensic Scientist must verify that the DNA profiles from a candidate match could possibly come from the same individual.
- **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 DNA forensic laboratories.
- **CODIS User** – An individual employed by the State Crime Laboratory/NCDOJ IT who has passed an FBI background check and who has access to computers which have CODIS software installed.
- **Composite** - A DNA profile generated by combining typing results from different loci obtained from multiple injections of the same amplified evidentiary sample and/or multiple amplifications of the same DNA extract. When separate extracts from a given item are combined prior to amplification, the resulting DNA profile is not considered composite. Unless there is a reasonable expectation of samples originating from a common source (e.g., duplicate vaginal swabs, known reference samples, or a bone), allelic data from separate extractions shall not be combined into a composite profile.
- **Convicted Offender** - A known sample from an individual CONVICTED of a felony and certain misdemeanors in North Carolina that is specifically obtained pursuant to North Carolina law.   The DNA record for this specimen category is stored in the Convicted Offender Index.
- **Core Loci** – 13 loci including D8S1179, D21S11, D7S820, CSF1PO, D3S1358, TH01, D13S317, D16S539, vWA, TPOX, D18S51, D5S818, FGA.
- **DNA Profile** – The genetic constitution of an individual at defined locations (also known as loci) in the DNA. A DNA profile derived from nuclear DNA from one person typically consists of one or two alleles at several loci (e.g., short tandem repeat loci).
- **DNA Record** - A database record that includes the DNA profile as well as the data required for managing and operating SDIS/NDIS, i.e., the Originating Agency Identifier which serves to

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identify the submitting agency; the Specimen Identification Number; and DNA personnel associated with the DNA profile analysis.

- **Elimination** - A known sample from an individual known not to be a suspect in a case. Examples include consensual sex partners, a witness who was injured at a scene, officers who may have inadvertently left DNA on evidence, etc. Elimination profiles SHALL NOT be entered into any CODIS Index.

- **Forensic Mixture** - A DNA profile that originates from a forensic sample that contains DNA contributed from more than one source attributable to a putative perpetrator(s) and is eligible for upload to NDIS. The DNA record for this specimen category is stored in the Forensic Mixture Index.

- **Forensic Partial -** A DNA profile that originates from a single source forensic sample attributable to a putative perpetrator(s) with either locus or allelic dropout at any of the 13 core CODIS loci and is eligible for upload to NDIS. The DNA record for this specimen category is stored in the Forensic Partial Index.

- **Forensic Sample** – A biological sample originating from and/or associated with a crime scene and whose source is attributable to a putative perpetrator. These are not reference samples from known individuals.

- **Forensic Unknown** - A DNA profile that originates from a single source forensic sample attributable to the putative perpetrator. The DNA record for this specimen category is stored in the Forensic Index.

- **LDIS** – The local DNA Index System (LDIS) contains the detailed DNA records of a local DNA laboratory (e.g., Charlotte-Mecklenburg Crime Lab for NC).

- **Mass Screening Samples** - Samples submitted from known individuals that have been obtained by police DNA dragnets in an effort to solve a crime. The donors of these samples have not been identified as suspects in the case. These samples shall not be uploaded to any Index of CODIS.

- **Match** – A match occurs when CODIS links two or more DNA profiles and a confirmation process is started by designated laboratory personnel from each affected laboratory.

- **Missing Persons** - The known reference sample from an individual who is missing.   The source of the DNA has been verified as originating from the missing person and is stored in the Missing Person Index.

- **Mixture – State** - A DNA profile that originates from a forensic sample that contains DNA contributed from more than one source attributable to a putative perpetrator(s) and is eligible for upload to SDIS, but not NDIS.   The DNA record for this specimen category is stored in the Forensic Mixture Index.

- **Multi-allelic Offender** – An offender (arrestee, convicted offender, detainee, or legal index specimen) DNA record having three or more alleles at two or more loci. The DNA record for this specimen category is stored in the Multi-Allelic Offender Index.

- **NDIS** – The National DNA Index System (NDIS) is the FBI administered centralized system of DNA identification records contributed by all state and local participating laboratories. NDIS receives selected eligible records from every lower level index and supports the searching function of CODIS.

- **Obligate Allele** - An allele marked with a "+" that is foreign to the victim/elimination standard in a mixture.

- **Offender – State** - A known sample from an individual CONVICTED of a felony and certain misdemeanors in North Carolina that is specifically obtained pursuant to North Carolina law and is eligible for upload to SDIS, but not NDIS.   The DNA record for this specimen category is stored in the Convicted Offender Index.

- **Partial – State** - A DNA profile that originates from a single source forensic sample attributable to putative perpetrator(s) with either locus or allelic dropout at any of the 13 core CODIS loci and is

eligible for upload to SDIS, but not NDIS. The DNA record for this specimen category is stored in the Forensic Partial Index.

- **Quality Control –** A single source DNA profile sample that originates from a proficiency test sample or un-attributable exogenous DNA introduced to a forensic sample or control. The DNA record for this specimen category is stored in the Employee/QC Index.
- **Required Allele Designation** - When entering a mixture into CODIS, a "+" shall be placed after any obligate allele in the mixture. This "+" informs the CODIS software of the alleles required to return a candidate match.
- **SDIS -** The State DNA Index System (SDIS) contains the state-level DNA records available for searching by local DNA laboratories within the state. SDIS, the state's repository of DNA identification records, is under control of state authorities and typically serves as the central point of contact for access to NDIS. The North Carolina State Crime Laboratory located in Raleigh, NC, shall be the designated SDIS Laboratory.
- **Staff -** A DNA profile obtained from an employee, vendor, or visitor of the State Crime Laboratory. For quality control purposes, DNA samples shall be collected from anyone who enters Laboratory space in the Forensic Biology and/or Database Sections. The DNA record for this specimen category is stored in the Employee/QC Index.
- **Suspect** - A known sample from an individual identified as a suspect, and listed as such on the evidence submission form by the submitting agency. Suspect profiles may be entered into LDIS and SDIS, but not NDIS.
- **Unidentified Human Remains** - The DNA profile developed from the recovered deceased or an individual who is unidentified (e.g., children who can't and others who can't or refuse to identify themselves). The DNA record for this specimen category (Unidentified Person) is stored in the Unidentified Human Remains Index.
- **Victim -** A known sample from an individual identified as a victim on the evidence submission form by the submitting agency. Victim profiles shall not be uploaded to any CODIS Index unless the DNA profile is generated for inclusion into the Missing Person or Unidentified Human Remains Indices.

4.0   Equipment, Materials, and Reagents – computers with CODIS software, CODIS server, external media storage device, Forensic Advantage (FA) system.

5.0   Procedure

5.1   General CODIS Procedures

5.1.1   Forensic Scientists Responsibilities

5.1.1.1   The DNA casework Forensic Scientist generates DNA profiles and determines whether those profiles are suitable for entry into CODIS.

5.1.1.2   The Forensic Scientist is responsible for documenting all CODIS related information into the FA System (see Procedure for Documentation and Review).

5.1.1.3   The Forensic Scientist assigned as DNA technical reviewer shall verify results of all samples prior to their entry into CODIS (see Procedure for Documentation and Review).

5.1.1.4 After technical review, the DNA casework Forensic Scientist shall import forensic unknown and forensic partial profiles. CODIS shall automatically compare the results for concordance.

5.1.1.5 Non-predominant mixture profiles shall be manually entered after Technical Reviewer approval (see Procedure for Documentation and Review).

5.1.1.6 If a Forensic Scientist uploads a sample to SDIS that is not suitable for upload to NDIS, the Forensic Scientist shall unmark that specimen (see Procedure for Unmarking Profiles for Upload within the Procedure for CODIS document).

5.1.1.7 The Forensic Scientist assigned as combined technical/administrative reviewer shall verify that the appropriate samples and results have been entered properly into CODIS by reviewing the SDIS Specimen Detail Report (see Procedure for Documentation and Review)**.**

5.1.1.8 After technical review, the DNA Database Forensic Scientist is responsible for importing the profiles of all convicted offenders and arrestees into CODIS (see Procedures for DNA Database Analysis and Technical Review of Database Samples and DNA Database Review of Contractor Data).

5.1.1.9 After importing convicted offender and arrestee profiles, the DNA Database Forensic Scientist is responsible for identifying and reconciling any duplicate database samples.

5.1.2 **CODIS Administrator**

5.1.2.1 The CODIS Administrator is responsible for ensuring that the Forensic Biology Section is in compliance with NDIS sample acceptance policy.

5.1.2.2 The CODIS Administrator is responsible for all operations of the CODIS system with the exception of entering profiles into LDIS and SDIS which shall remain with the assigned case working Forensic Scientist.

5.1.2.3 The CODIS Administrator is responsible for administering the Laboratory's CODIS network.

5.1.2.3.1 This responsibility includes, but is not limited to, the following: software updates, user maintenance, national and state uploads, processing of incoming and outgoing search requests, and communication with other laboratories and law enforcement agencies.

5.1.2.4 The CODIS Administrator is responsible for evaluating SDIS and NDIS candidate matches to determine if they may have come from the same individual. The CODIS Administrator shall view every match that occurs in Match Manager as a result of a state or national upload and shall disposition the matches according to the NDIS operational procedures.

5.1.2.5 The CODIS Administrator shall inform Forensic Scientists of any CODIS considerations related to new procedures and software upgrades.

5.1.2.6 The CODIS Administrator shall be responsible for the maintenance and completion of all paperwork required for NDIS participation such as the addition of new users, changing user names, and termination of users no longer employed by the State Crime Laboratory or involved with CODIS. The CODIS Administrator shall ensure that all external audit documentation and Laboratory responses shall be provided to the FBI within 30 days of the Laboratory's receipt of the audit documents or report.

5.1.2.7 The CODIS Administrator shall be responsible for the maintenance and completion of all paperwork required for NDIS participation of all local labs.

5.1.2.8 The CODIS Administrator shall be responsible for ensuring that the security of the DNA profiles stored in CODIS is in accordance with state and/or federal law and NDIS operational procedures.

5.1.2.9 The CODIS Administrator shall be responsible for the oversight of CODIS computer training. This includes scheduling and documenting computer training of all CODIS users in the laboratory.

5.1.2.10 The CODIS Administrator shall be responsible for ensuring that the quality of data stored in CODIS is in accordance with state and/or federal law and NDIS operational procedures.

    5.1.2.10.1 This is accomplished through the review process.

    5.1.2.10.2 The CODIS Administrator shall have the authority to remove any profiles that do not meet NDIS requirements.

5.1.2.11 The CODIS Administrator shall have the authority to terminate any North Carolina laboratory's participation (including the State Crime Laboratory) or any user if it is determined by the CODIS Administrator that unreliable data is being uploaded and/or the security of the computer data is not ensured.

5.1.2.12 The CODIS Administrator shall be responsible for preparing documentation required for NDIS participation.

5.1.2.13 The CODIS Administrator is the designated State official.

5.1.2.14 The CODIS Administrator shall successfully complete CODIS software training as well as DAB DNA auditor training.

5.1.3 CODIS Assistant Administrator

5.1.3.1 Shall meet the same minimum requirements as the CODIS Administrator.

5.1.3.2 Shall perform the duties of CODIS Administrator in his/her absence.

5.1.3.3 Shall perform the duties listed above as delegated by the CODIS Administrator.

5.1.3.4 Shall complete CODIS software training as well as DAB DNA auditor training.

5.2 Procedure for CODIS Systems Operations

5.2.1 Procedure for CODIS Backups

5.2.1.1 NCDOJ IT shall schedule and initiate the backup of CODIS data.

5.2.1.2 A full backup shall be run automatically once a week and incremental backups shall be run on the remaining days of the week.

5.2.1.3 A monthly full backup shall also be run.

5.2.1.4 Monthly backup sets shall be kept offsite.

5.2.1.5 Backups shall be scheduled to occur during off peak hours.

5.2.2 Procedure for CODIS File Storage

5.2.2.1 Case analysis files shall be stored in accordance with guidelines set forth in the State Crime Laboratory procedures.

5.2.2.2 DNA Database files shall be stored in the DNA Database Section.

5.2.3 Procedure for CODIS Security

5.2.3.1 All CODIS users are responsible for security of the software.

5.2.3.2 When a user is finished with a CODIS work session, the user shall log out of CODIS and out of the Network.

5.2.3.3 The CODIS Server room shall remain locked.

5.2.3.4 CODIS Helpdesk users shall be monitored by the CODIS Administrator while using Windows Remote Desktop on the State Crime Laboratory network.

5.3 Procedure for Local CODIS Laboratories

5.3.1 Any local CODIS laboratory in North Carolina which wishes to link to the State Crime Laboratory shall:

    5.3.1.1 Meet all NDIS requirements.

    5.3.1.2 Be accredited.

    5.3.1.3 Meet National Quality Assurance Standards for Forensic DNA Testing Laboratories, including, but not limited to, the requirement for a yearly audit, proficiency tests, and Forensic Scientist qualifications.

    5.3.1.4 Provide NDIS required paperwork to the State Crime Laboratory in a timely fashion.

5.3.2 Any CODIS laboratory within North Carolina linked to the State Crime Laboratory's DNA State Database which fails to comply with the above listed requirements or to maintain the required control and privacy standards specified by the State Crime Laboratory for the State DNA Database shall have its CODIS connection and rights to the State DNA Database/Databank terminated.

    5.3.2.1 The decision to take these steps shall be made by the Forensic Biology Section Forensic Scientist Manager and/or the CODIS Administrator.

    5.3.2.2 This decision shall be made after notification is given to the State Crime Laboratory Director and after seeking guidance from State Crime Laboratory Legal Counsel.

    5.3.2.3 Notification of revocation of CODIS rights shall be made via letter to the Laboratory Director of the laboratory in question and the NDIS Custodian. The NDIS Custodian shall determine if the DNA records contributed to NDIS should be removed based on the facts and circumstances of each case.

5.4 **Procedure for Profile Management**

5.4.1 **Procedure for Acceptance of DNA Records at SDIS and NDIS**

    5.4.1.1 DNA records submitted to SDIS and NDIS shall be interpretable.

    5.4.1.2 Database and reference samples shall be accurate and complete for the CODIS core loci; efforts shall be made to obtain results for each locus and to enter all of the results as part of the DNA profile.

        5.4.1.2.1 Database samples with potential allelic or locus dropout at <u>any</u> locus shall be entered as "Offender – State" or "Arrestee – State." These samples shall not be uploaded to NDIS and shall remain at SDIS until a new sample is submitted and a complete DNA profile is obtained.

5.4.1.3 A forensic unknown, forensic mixture, or forensic partial DNA record submitted to SDIS or NDIS shall originate from and/or be associated with a crime scene; the source of which is attributable to a putative perpetrator. For purposes of SDIS and NDIS eligibility, an item taken directly from a suspect shall be considered a suspect standard, not a forensic sample.

5.4.1.3.1 If the Forensic Scientist does not have adequate information to make a determination of eligibility, he/she shall contact the investigating officer to seek additional information about the evidence submitted.

5.4.1.3.1.1 This conversation shall be documented in the communication log in FA.

5.4.1.3.2 If the Forensic Scientist has additional questions about the eligibility of a sample, he/she may consult the CODIS Administrator.

5.4.1.3.2.1 This conversation shall be documented in the communication log in FA.

5.4.1.4 A forensic unknown DNA record originating from a single source submitted to SDIS or NDIS having all 13 core CODIS loci shall not have more than 3 alleles at one locus while the remaining loci can have up to 2 alleles.

5.4.1.5 A forensic mixture DNA record submitted to SDIS or NDIS shall not have more than 4 alleles at any locus.

5.4.1.6 A forensic partial DNA record originating from a single source with either locus or allelic dropout at any of the 13 core CODIS loci submitted to SDIS or NDIS shall not have more than 3 alleles at one locus while the remaining loci can have up to 2 alleles.

5.4.1.6.1 Any loci with a homozygote allele below stochastic threshold shall be considered partial for CODIS purposes.

5.4.1.7 Forensic mixture and forensic partial DNA records submitted to SDIS shall be reviewed to ensure that the DNA records satisfy a statistical threshold for match rarity of 20 (or less) in the total number of samples stored in the SDIS database.

5.4.1.7.1 The CODIS Administrator shall maintain documentation on the size of the SDIS database on the Forensic Biology shared drive. This documentation shall be updated on a semi-annual basis.

5.4.1.7.2 If the estimation of match rarity exceeds 20 in the size of the SDIS database, the forensic mixture and forensic partial DNA records shall not be submitted to the SDIS database.

5.4.1.7.3 If the estimation of match rarity exceeds 20, but is less than 100 in the size of the SDIS database, then the forensic mixture and forensic partial DNA records may be searched with CODIS Administrator written approval.

5.4.1.8 Forensic mixture and forensic partial DNA records submitted to NDIS shall be reviewed to ensure that the DNA records satisfy a statistical threshold for match rarity of approximately 1 in the size of the NDIS database (Refer to **5.4.4** and the Forensic Biology Procedure for Documentation and Review.)

5.4.1.8.1 The CODIS Administrator shall maintain documentation on the size of the NDIS database on the Forensic Biology shared drive. This documentation shall be updated on a semi-annual basis.

5.4.1.8.2 If the estimation of match rarity exceeds 1 in the size of the NDIS database, but is eligible for SDIS, the forensic mixture and forensic partial DNA records shall be entered as "Partial – State" or "Mixture – State."

5.4.1.9 A DNA record submitted to the Forensic, Forensic Mixture or Forensic Partial Indices at SDIS or NDIS shall only offer those alleles that are attributed to the putative perpetrator(s). Alleles that are unambiguously attributed to a victim or individuals other than the putative perpetrator(s), such as an elimination standard, shall not be offered to SDIS or NDIS.

5.4.1.10 Profiles matching the victim or human reference samples from a victim shall not be offered to **any** CODIS Index unless the DNA record is generated for inclusion into the Missing Person or Unidentified Human Remains Indices.

5.4.1.11 Composite DNA records may be submitted to SDIS or NDIS.

5.4.2 **Procedure for CODIS Specimen Identification Number**

5.4.2.1 **Specimen Category**: Forensic samples shall be called one of the following: "Forensic Unknown," "Forensic Partial," "Partial – State," "Forensic Mixture," "Mixture – State," "Missing Person," "Unidentified Human Remains," and "Suspect." DNA Database samples shall be called "Convicted Offender," "Offender – State," "CO Duplicate," "Arrestee," "Arrestee – State," "AR Duplicate" or "Multi-Allelic Offender." Employee/QC samples shall be called "Quality Control" or "Staff."

5.4.2.2 **Specimen ID Number**: A standardized format for entering specimen information into CODIS has been devised for searching purposes. Forensic Scientists shall use the laboratory case number and item number separated by a "#" symbol for each profile to be entered into CODIS. It is allowable to designate sperm or non-sperm fractions from mixed stains with an "SP" or "NS," respectively. It is also permissible to have a dilution value after the item number. Forensic Scientists shall not use dashes to separate the year and case number when entering forensic samples into CODIS.

Examples:

- Known blood: R200019951#2-2
- Sperm Fraction: R200019951#1-4SP
- Non-sperm fraction: R200019951#1-4NS
- Questioned item (diluted):   R200019951#3_1to10

5.4.2.3 The specimen ID shall unambiguously describe the sample. No name or identifying information shall ever be attached to a specimen ID in CODIS.

5.4.2.4 The DNA Database specimen ID shall be preceded by the full year and then a five digit consecutive number given at the time of accessioning (i.e., 2000-00001) for all samples entered prior to the implementation of bar-coded DNA Database Collection kits.   Note: Some previous years only contain a two digit prefix.

5.4.2.5 After implementation of bar-coded DNA Database Collection kits in 2011, the DNA Database specimen ID shall be a unique barcode number.

5.4.3   **Procedure for Unmarking Profiles for NDIS Upload**

5.4.3.1 Only samples that are eligible per NDIS guidelines shall be marked for transfer beyond SDIS.

5.4.3.1.1 To unmark a specimen for upload in CODIS, perform the following steps:

5.4.3.1.1.1 Open Analyst Workbench and select the Specimen Manager module.

5.4.3.1.1.2 Select File, then select Edit.

5.4.3.1.1.3 Beside Specimen ID, click on the drop down arrow and select (=).

5.4.3.1.1.4 Enter the Specimen ID of the sample selected to be unmarked and then click on OK.

5.4.3.1.1.5 Right click on the specimen of interest and select Unmark Specimen for Upload.

5.4.4   **Procedure for Match Estimation**

5.4.4.1 Open Analyst Workbench and select the Popstats module; click on the Match Estimation View.

5.4.4.2 Enter the Specimen ID and the Forensic Mixture or Forensic Partial profile.

5.4.4.2.1 Match estimation is not required on Forensic Partial profiles or Forensic Mixtures where a mixture or allelic/locus dropout is observed at <u>only</u> D2S1338 or D19S433 as NC population frequency data has not been determined for these two loci.

5.4.4.3 Enter the appropriate Database Specimen Count (for either SDIS or NDIS.)

5.4.4.4 Allow for one (1) loci to mismatch.

5.4.4.5 Set to moderate stringency.

5.4.4.5.1 The Forensic Scientist may set the stringency to high for heterozygote loci when determining match rarity for a keyboard search only. If approved by the CODIS Administrator, keyboard searches shall use the same stringency configurations as the match estimator.

5.4.4.6 Ensure that the North Carolina database is selected.

5.4.4.7 Click on the Calculate button.

5.4.4.8 The Forensic Scientist shall include the Match Estimation report in the FA case object repository.

5.4.5 **Procedure for Forensic Mixtures in CODIS**

5.4.5.1 The Forensic Scientist shall designate the "Forensic Mixture" and "Mixture – State" specimen categories for non-predominant mixtures only. Predominant profiles from mixtures shall be entered as "Forensic Unknown," "Forensic Partial," or "Partial - State."

5.4.5.1.1 Obligate alleles, which are alleles that have been determined to not have originated from the victim or elimination standards, shall be marked with a "+" symbol.

5.4.6 **Procedure for Entering Profiles into CODIS**

5.4.6.1 Single source profiles shall be imported into CODIS directly from GeneMapper ID-X.

5.4.6.1.1 In GeneMapper ID-X go to the Samples tab. Click on CODIS Export Table from the drop down menu of the Table Setting view.

5.4.6.1.2 Under Specimen Category, select the appropriate sample type for export: "Forensic Unknown," "Forensic Partial," "Partial – State," "Suspect Known," "Convicted Offender," "Offender – State," "Arrestee," "Arrestee – State," "Staff," "Unidentified Person," or "Missing Person."

5.4.6.1.3 Go to File, select Export Table for CODIS.

5.4.6.1.3.1 Choose CMF 3.2 (.xml) from the drop down menu for Export File As.

5.4.6.1.3.2 Under CODIS Laboratory IDs, ensure the Source and Destination are set to NCBCI0094.

5.4.6.1.3.3 Export the folder to the following file pathway: (D:\AppliedBiosystems\GeneMapper\CODIS Export Files)

Note: If GeneMapper is located on a computer that is NOT networked to CODIS, the export file shall be exported to an external media storage device which then shall be taken to a CODIS computer for the remaining steps.

5.4.6.1.4 Open Analyst Workbench and select the Specimen Manager module.

5.4.6.1.4.1 Select the Import File icon (blue cylinder with green arrow).

5.4.6.1.4.2 Select the file to be imported.

5.4.6.1.4.3 Assign profiles to your user ID and click OK.

5.4.6.1.5 Select the CODIS Message Center module.

5.4.6.1.5.1 Select Import STR Files, double click on the file to be imported (should be in bold type).

5.4.6.1.5.2 Select Import STR Reports, double click on the file and review the reconciliation report for the sample to ensure that the import was successful (should be in bold type).

5.4.6.1.5.3 If there is a problem with the specimen, refer to the reconciliation codes at the bottom of the report.

5.4.6.1.5.4 If a specimen has an off-ladder or microvariant allele that does not import correctly, refer to the CODIS website for a list of acceptable allele calls for CODIS.

5.4.6.1.5.5 The Forensic Scientist should contact the CODIS Administrator or Assistant CODIS Administrator if further assistance is required.

5.4.6.1.6 Select the Specimen Manager module, and sort by Assigned Date (double click on column header).

    5.4.6.1.6.1 Highlight the imported sample, right click, and select Set Specimen Properties.

    5.4.6.1.6.2 For Partial Profile, select "Yes" or "No" for both profile and individual locus (Yes = a sample that is missing one or more alleles or loci, No = a sample which contains all alleles at all loci).

    5.4.6.1.6.3 For Source ID, select "Yes" or "No" (Yes = a solved case, No = an unsolved case).

    5.4.6.1.6.4 Click on the Print icon, select Specimen Detail Report (short), and then click on Print Preview.

    5.4.6.1.6.5 Print or export the SDIS Specimen Detail Report as a PDF file which shall be saved in the FA case record object repository.

5.4.6.2 Non-predominant mixtures and predominant profiles shall be entered manually using STR Data Entry.

    5.4.6.2.1 Open Analyst Workbench and select STR Data Entry.

    5.4.6.2.2 Enter/Select information for the following categories/boxes:

        5.4.6.2.2.1 Enter Specimen ID.

        5.4.6.2.2.2 Select correct Specimen Category.

        5.4.6.2.2.3 For Source ID, select "Yes" or "No" (Yes = a solved case, No = an unsolved case).

        5.4.6.2.2.4 For Partial Profile, select "Yes" or "No" for both profile and individual locus (Yes = a sample that is missing one or more alleles or loci, No = a sample which contains all alleles at all loci).

    5.4.6.2.3 Enter correct allelic values for Reading #1 for all loci.

    5.4.6.2.4 Enter correct allelic values for Reading #2 for all loci.

    5.4.6.2.5 Click on the Save icon to save the results in CODIS.

    5.4.6.2.6 Click on the Print icon, select Specimen Detail Report (short), and click on Print Preview.

5.4.6.2.7   Print or export the SDIS Specimen Detail Report as a PDF file which shall be saved in the FA case record object repository

5.4.7   Procedure for Deletion/Changing of Profiles

5.4.7.1   A Forensic Scientist may change or delete a specimen if they are considered to be the "Assigned To" user or owner of that specimen, unless it has already been uploaded to NDIS.

5.4.7.2   The CODIS Administrator shall make changes to or delete specimens if the "Assigned To" user or owner of the specimen is not available or able to do so (except for deletions of arrestee samples pursuant to an approved expungement request.)

5.4.7.2.1   The Forensic Scientist shall note the reason for deletion or change in the comments section of the specimen record.

5.4.7.2.1.1   Comments shall be added prior to deleting or changing the profile.

5.4.7.2.2   The Forensic Scientist shall print or export the updated SDIS Specimen Detail Report or the SDIS Delete Report as a PDF file which shall be saved in the FA case record object repository (except for deletions of DNA database samples.)

5.4.8   Procedure for Comparison and Searching of Unknown DNA Profiles

5.4.8.1   If an unknown DNA profile is generated in a case that is eligible to be uploaded and/or searched in the database:

5.4.8.1.1   Prior to generating a report, the Forensic Scientist shall manually compare any unknown profile to his/her own DNA profile, the DNA profile of any Forensic Biology employee involved in the case, and any DNA profiles generated in cases that were batched with the case in question. This comparison shall be documented per the Procedure for Documentation and Review.

5.4.8.1.2   If it is determined that the unknown profile did not originate from any of these sources, the Forensic Scientist shall enter the eligible unknown DNA profile in CODIS after completion of the technical review.

5.4.8.1.3   The Forensic Scientist shall then perform a keyboard search of the Employee/QC Index using the NDIS Searcher Program. See 5.4.8.5.5 of the Procedure for CODIS regarding search parameters. The results of this search shall be exported and saved to the FA case record object repository.

5.4.8.1.4 Once the keyboard search of the Employee/QC Index has been completed, see the Procedure for Documentation and Review.

5.4.8.1.5 See 5.4.9.4 within the Procedure for CODIS regarding routine searches of the Employee/QC Index.

5.4.8.2 If the unknown DNA profile is not eligible for CODIS due to the type of sample (e.g., could possibly be attributed to a victim or elimination standard or the evidence is not probative to the case, etc.):

5.4.8.2.1 Prior to generating a report, the Forensic Scientist shall manually compare any unknown profile to his/her own DNA profile, the DNA profile of any Forensic Biology employee involved in the case, and any DNA profiles generated in cases that were batched with the case in question. This comparison shall be documented per the Procedure for Documentation and Review.

5.4.8.2.2 If it is determined that the unknown profile did not originate from any of these sources, the Forensic Scientist shall perform a keyboard search of the Employee/QC Index using the NDIS Searcher Program after completion of the technical review. See 5.4.8.5.5 of the Procedure for CODIS regarding search parameters. The results of this search shall be exported and saved to the FA case record object repository.

5.4.8.2.3 Once the keyboard search of the Employee/QC Index has been completed, see the Procedure for Documentation and Review.

5.4.8.3 If the unknown DNA profile is not eligible for CODIS because it exceeds the statistical threshold for match rarity:

5.4.8.3.1 Prior to generating a report, the Forensic Scientist shall manually compare any unknown profile to his/her own DNA profile, the DNA profile of any Forensic Biology employee involved in the case, and any DNA profiles generated in cases that were batched with the case in question. This comparison shall be documented per the Procedure for Documentation and Review.

5.4.8.4 Casework Forensic Scientists shall send a request to the CODIS administrator or his/her designee to have a keyboard search performed on a profile from their case. Keyboard searches are permitted, if necessary, on unknown profiles developed in casework that has been technically reviewed. If the keyboard search results in a CODIS hit, the results of the keyboard search shall not be released (written or orally) until the completion of the DNA database confirmation.

5.4.8.4.1 Once the keyboard search has been completed, see the Procedure for Documentation and Review.

5.4.8.5 The following procedure shall be used when a Forensic Scientist deems it necessary to search a profile in CODIS:

5.4.8.5.1 Open Analyst Workbench and select the Searcher module.

5.4.8.5.2 Enter the Lab ORI Number (NCBCI0094).

5.4.8.5.3 Enter the Specimen ID Number and the alleles for each locus. If the profile was previously entered, it may be retrieved from the database.

5.4.8.5.4 A keyboard search shall be conducted as follows: the Forensic, Forensic Partial, Forensic Mixture, Offender, Arrestee, Suspect, Missing Person, and Unidentified Human Remains Indices shall be searched at moderate stringency, with a minimum of seven (7) core loci, and allowing for one (1) mismatch.

5.4.8.5.4.1 The parameters of a keyboard search may be modified on a case-by-case basis with CODIS Administrator written approval. This modification shall be based solely on the completeness of the DNA profile.

5.4.8.5.5 A keyboard search of the Employee/QC Index shall be conducted as follows: an unknown profile shall be searched at moderate stringency against the Employee/QC Index, with a minimum of 7 core loci and allowing for 1 mismatch.

5.4.8.5.6 Click on the Search button.

5.4.8.5.7 Once the search is completed, review the Match Details window.

5.4.8.5.8 The Forensic Scientist shall print or export the Match Detail Report(s) as a PDF file which shall be saved in the FA case record object repository.

5.4.8.5.8.1 If a match occurs which requires a confirmation, the Forensic Scientist shall provide the CODIS Administrator a copy of the Match Detail Report.

5.4.8.5.9 The Forensic Scientist shall save these matches to Match Manager by selecting the Save Results to Match Manager icon.

5.4.8.5.10 See 5.4.11 regarding the viewing of matches in Match Manager and hit dispositioning.

5.4.9   Procedure for Conducting Routine Searches

5.4.9.1   All forensic profiles shall be searched routinely by the CODIS Administrator or the Assistant CODIS Administrator using Autosearcher.

5.4.9.1.1   The "State – High Stringency" Autosearch shall be set conducted as follows: the Forensic, Offender, Arrestee, and Suspect Indices shall be searched at high stringency, with a minimum of seven (7) core loci, and allowing for one (1) mismatch.

5.4.9.1.2   The "State-Moderate Stringency" Autosearch shall be set conducted as follows: the Forensic Partial, Forensic Mixture, Offender, Arrestee, Multi-allelic Offender, Suspect, Missing Person, and Unidentified Human Remains Indices shall be searched at moderate stringency, with a minimum of seven (7) core loci, and allowing for zero (0) mismatches.

5.4.9.1.3   The "Employee/QC" Autosearch shall be conducted as follows: the Employee/QC Index shall be searched at moderate stringency against the Arrestee, Forensic, Forensic Mixture, Forensic Partial, Missing Person, Offender, Multi-allelic Offender, Suspect, and Unidentified Human Remains Indices, with a minimum of seven (7) core loci and allowing for one (1) mismatch.

5.4.9.2   All database profiles shall be searched by the DNA Database Forensic Scientist after every database upload using Autosearcher.

5.4.9.2.1   The "Duplicate Arrestee and Offender" Autosearch shall conducted as follows:

5.4.9.2.1.1   The Arrestee Index shall be searched at high stringency against the Arrestee, Offender, and Multi-allelic Offender Indices with a minimum of 13 core loci and allowing for one (1) mismatch.

5.4.9.2.1.2   The Offender Index shall be searched at high stringency against the Arrestee, Offender, and Multi-allelic Offender Indices with a minimum of 13 core loci and allowing for 1 mismatch.

5.4.9.2.1.2.1   If a potential duplicate arrestee or offender sample is identified, the DNA Database Forensic Scientist shall compare the name and other identifying information in SpecMan. If the same, the

specimen category of the most recently submitted specimen shall be changed to "Arrestee Duplicate" or "CO Duplicate" in CODIS. A note shall be entered into the specimen record of SpecMan indicating that the specimen is a duplicate. A status change in SpecMan is not necessary. Refer to 5.4.11.2.8 for hit disposition in Match Manager.

5.4.9.2.1.2.2 If a potential duplicate arrestee or offender sample is identified and the DNA Database Forensic Scientist cannot verify that the DNA profile came from the same individual based on the personal identifying information in SpecMan, the Database Manager shall be notified. Once a determination has been made regarding the potential duplicate samples (see the Procedure for DNA Database), the DNA Database Forensic Scientist shall place the specimen in the appropriate specimen category in CODIS and shall make a note in the specimen record of SpecMan. The match shall be dispositioned according to NDIS guidelines.

5.4.10 **Procedure for Search Requests Received and Sent**

5.4.10.1 Profiles generated by another NDIS participating laboratory sent via fax or email shall be searched in the NC database by the CODIS Administrator and/or designees.

5.4.10.1.1 DNA profiles shall be PCR-STR profiles and have been developed from a laboratory that has been properly audited with the FBI Quality Assurance Standards.

5.4.10.1.2 The laboratory shall have a contract to perform casework.

5.4.10.1.3 A copy of the search report shall be retained along with the request form.

5.4.10.1.4 The requesting laboratory shall be notified that the search was completed and the results of the search.

5.4.10.1.5 If a match occurs which requires a confirmation, the confirmation shall be completed as described in the CODIS Hit Procedures within the Procedure for DNA Database.

5.4.10.2 Forensic Scientists may ask the CODIS Administrator to request that a profile be searched against another State's database.

5.4.10.2.1 The unknown profile shall be technically and administratively reviewed.

5.4.10.2.2 The CODIS Administrator shall fill out the DNA SEARCH REQUEST BY FACSIMILE OFFICIAL FORM (NDIS Procedures) and submit the request to the appropriate NDIS participating laboratory.

5.4.11 Procedure for Match Manager and Hit Dispositioning

5.4.11.1 In order to view any matches, open Analyst Workbench and select the Match Manager module.

5.4.11.1.1 Select the Edit icon.

5.4.11.1.2 To sort by Match Date, select (=) and add the date of the search.

5.4.11.1.3 Once the parameters are chosen, select OK.

5.4.11.1.3.1 For single source samples, determine if there are any match candidates of greater than seven (7) loci at high stringency.

5.4.11.1.3.2 Valid moderate stringency matches obtained for single source samples are possible due to allelic dropout.

5.4.11.1.3.3 For mixture profiles, determine if there are any match candidates of greater than seven (7) loci at high or moderate stringency.

5.4.11.1.3.4 If multiple offenders or arrestees cannot be excluded from a mixture profile, all candidates shall be confirmed by the DNA Database. The confirmation shall be completed even if subject information assessment shows the offender or arrestee to be incarcerated on the date of offense.

5.4.11.1.3.5 Low stringency matches must be evaluated for missing persons and Unidentified Human Remains.

5.4.11.2 The CODIS Administrator shall view every match that occurs in Match Manager as a result of a state or national upload and shall disposition the matches according to the NDIS operational procedures.

5.4.11.2.1 A match between an unsolved case and a convicted offender shall be dispositioned as an "Offender Hit."

5.4.11.2.2 A match between an unsolved case and an arrestee shall be dispositioned as an "Arrestee Hit."

5.4.11.2.3 A match between a solved case and a convicted offender or arrestee, shall be dispositioned as a "Conviction Match." A name verification shall be performed in order to confirm the match between the offender or arrestee and the solved case. If necessary, the CODIS Administrator shall contact the appropriate NDIS participating laboratory in order to verify this information. A confirmation of the arrestee or offender sample shall be performed if there is any discrepancy (see 5.5.2).

5.4.11.2.4 A match between two (or more) solved cases shall be dispositioned as "Investigative Information" unless the positive association was made outside of CODIS. See 5.4.11.2.5.

5.4.11.2.5 A match between two (or more) solved cases where a positive association was made outside of CODIS (i.e. a related case or the same known suspect) shall be dispositioned as a "Benchwork Match."

5.4.11.2.6 A casework match where one (or more) of the cases are unsolved shall be dispositioned as a "Forensic Hit."

5.4.11.2.7 A casework match where one (or more) of the cases was associated with a previously identified Offender Hit shall be dispositioned as "Investigative Information."

5.4.11.2.8 A match between two (or more) arrestee or offender samples that have been confirmed as duplicates shall be dispositioned as an "Offender Duplicate."

5.4.11.2.9 A hit between two specimens that have been determined not to match shall be dispositioned as a "No Match."

5.4.11.2.10 A match between an unsolved forensic sample and a known suspect, at the SDIS level, shall be dispositioned as "User Defined 1."

5.4.11.2.11 A match between a solved forensic sample and a known suspect shall be dispositioned as "Investigative Information."

5.4.11.2.12 Additional match situations may occur that shall be dealt with on a case-by-case basis. These matches shall be dispositioned according to NDIS guidelines.

5.5 Procedure for CODIS Hits

5.5.1 Procedure for Forensic Hits

5.5.1.1 In the instance of a Forensic hit, the CODIS Administrator shall obtain the information on the North Carolina State Crime Laboratory's cases involved in the hit. If the Forensic Hit is to an NDIS lab the CODIS Administrator shall exchange case information with the NDIS laboratory's CODIS Administrator by the use of NDIS' Casework Match Request/Response Forms.

5.5.1.1.1 The CODIS Administrator shall create a new CODIS hit confirmation request in SpecMan and shall update the status to "Hit Confirmation Pending."

5.5.1.1.2 Once the case information has been obtained for all specimens involved, the CODIS Administrator shall update the status in SpecMan to "CODIS Hit Confirmed." Proceed to 5.5.3.

5.5.2 Procedure for Offender/Arrestee Hits

5.5.2.1 In the instance of a NC offender/arrestee hit to a NC State Crime Laboratory case, the CODIS Administrator shall create and assign a new CODIS hit record in SpecMan.

5.5.2.1.1 The CODIS Administrator shall provide a copy of Match Detail report to the assigned database Forensic Scientist.

5.5.2.1.2 The CODIS Administrator shall monitor the "CODIS Hit Confirmed" queue; Proceed to 5.5.4.

5.5.2.2 In the instance of a NC offender/arrestee hit to a NDIS/CMPD case, the CODIS Administrator shall create and assign a CODIS hit record in SpecMan upon receipt of a written confirmation request that includes, but is not limited to the following information: the name of the requesting agency, the type of crime committed, and the date that the crime occurred.

5.5.2.2.1 The CODIS Administrator shall provide a copy of Match Detail report to the assigned database Forensic Scientist.

5.5.2.3 In the instance of an NDIS offender/arrestee hit to a NC State Crime Laboratory case, the CODIS Administrator shall make a written request to the

NDIS laboratory for confirmation of the convicted offender or arrestee sample. A copy of the match detail report and the confirmation request shall be included in the FA case record object repository upon completion of the confirmation by the CODIS Administrator.

5.5.2.3.1   The CODIS Administrator shall create a new CODIS hit confirmation request in SpecMan. The status shall be set to "Hit Confirmation Pending" upon sending the written confirmation request to the NDIS laboratory.

5.5.2.3.2   Once the CODIS Administrator receives confirmation from the NDIS laboratory, the status in SpecMan shall be updated to "CODIS Hit Confirmed." Proceed to 5.5.4.

5.5.2.4   The CODIS hit confirmation for NC offenders/arrestees shall be completed as described in the CODIS Hit Procedures of the Procedure for DNA Database.

5.5.2.5   For NDIS/CMPD hits, an administrative review shall be performed by the CODIS Administrator on the letter issued regarding the hit. At a minimum, the review shall include:

5.5.2.5.1   A review of the correspondence for clerical errors.

5.5.2.5.2   A review of the individual's biographical data, qualifying offense, and DNA profile generated from re-analysis.

5.5.2.5.3   Review of the database hit correspondence in FA.

5.5.2.5.4   The CODIS Administrator shall monitor the "CODIS Hit Confirmed" queue; upon administrative approval of the letter he/she shall then update the status of the CODIS Hit in SpecMan to "Completed."

5.5.3   **Procedure for Notification of the Investigating Agency – Forensic Hits**

5.5.3.1   The CODIS Administrator (or designee) shall generate a CODIS Hit Notification report, except in the instance of a forensic hit to a suspect standard or to a solved case.

5.5.3.1.1   The CODIS Administrator shall change the status in SpecMan to "Pending Notification of Submitting Agency."

5.5.3.2   The casework Forensic Scientist shall generate a casework report as a result of the analysis of a suspect standard (if the forensic hit was to a suspect reference standard or solved case previously analyzed by the North Carolina State Crime Laboratory).

5.5.3.2.1 The CODIS Administrator shall provide a copy of the Match Detail report to the casework Forensic Scientist.

5.5.3.2.2 The casework Forensic Scientist shall update the Source ID of the specimen (as provided in Procedure for Entering Profiles into CODIS within the Procedure for CODIS document).

5.5.3.2.3 All information in the relevant casework Forensic Scientist(s)' case record object repositories pertaining to the CODIS hit shall be shared. (See Procedures for Documentation and Review and Casework Report Writing.)

5.5.3.2.4 The CODIS Administrator shall change the status in SpecMan to "Pending Notification of Submitting Agency."

5.5.3.3 A copy of the CODIS Hit Notification report shall be sent to the Police Chief or Sheriff of the investigating agency and the District Attorney of the county in which the offense occurred. For a CODIS hit to an SBI assisted case, a copy of the CODIS Hit Notification report shall also be sent to the SBI Case Agent and Special Agent in Charge. These individuals shall be added as "Carbon Copy" officers in FA.

5.5.3.3.1 The CODIS Administrator shall monitor the "Pending Notification of Submitting Agency" queue in SpecMan. Once a CODIS Hit Notification report or casework report is released from FA, the CODIS Administrator shall change the status to "Completed."

5.5.4 **Procedure for Notification of the Investigating Agency – Offender/Arrestee Hits**

5.5.4.1 The CODIS Administrator (or designee) shall generate a CODIS Hit Notification report.

5.5.4.1.1 The CODIS Administrator shall change the status in SpecMan to "Pending Notification of Submitting Agency."

5.5.4.2 A copy of the report shall be sent to the Police Chief or Sheriff of the investigating agency and the District Attorney of the county in which the offense occurred. For a CODIS hit to an SBI assisted case, a copy of the CODIS Hit Notification report shall also be sent to the SBI Case Agent and Special Agent in Charge. These individuals shall be added as "Carbon Copy" officers in FA.

5.5.4.2.1 The CODIS Administrator shall monitor the "Pending Notification of Submitting Agency" queue in SpecMan.

5.5.4.2.2 Once a CODIS Hit Notification report is released from FA, the CODIS Administrator shall change the SpecMan status to

"Pending Receipt of Standard." In addition, the CODIS Administrator (or designee) shall release the latent and database case records in FA.

5.5.4.2.3 The CODIS Administrator shall monitor the "Pending Receipt of Standard" queue in SpecMan. The CODIS Administrator shall change the status to "Standard Received" for those cases in which the standard has been submitted.

5.5.4.2.4 When the suspect standard has been compared to the forensic unknown specimen, the casework Forensic Scientist shall update the Source ID of the specimen (as provided in Procedure for Entering Profiles into CODIS within the Procedure for CODIS document).

The CODIS Administrator shall monitor the "Standard Received" queue in SpecMan. The CODIS Administrator shall change the status to "Complete" upon analysis of a suspect standard.

5.5.5 **Procedure for Preparation of Affidavit and Search Warrant**

5.5.5.1 The Forensic Scientist shall notify the CODIS Administrator when he/she has assisted with drafting or serving a search warrant or affidavit.

5.5.5.2 The Forensic Scientist shall refer to the example affidavit titled "Application for Search Warrant (Continuation)."

5.5.5.2.1 See Procedure for Documentation and Review regarding verification review.

5.5.5.3 If the case-working Forensic Scientist is non-sworn, a sworn Forensic Scientist shall perform the functions to assist in serving the warrant.

5.5.5.4 The date and time to serve the warrant should be coordinated with the investigating officer as well as the prison/jail (if the offender/arrestee is incarcerated).

5.5.5.4.1 Showing up unannounced is not acceptable.

5.5.5.4.2 The credentials of the Forensic Scientist shall be necessary to gain access once inside the facility.

5.5.5.5 Fill out the search warrant cover page, application for search warrant sheets, and the inventory of seized property form.

5.5.5.5.1 Official search warrant forms are available at www.nccourts.org.

5.5.5.5.2 Click the Forms icon, type in the form number (119 or 206) in the Form Number box, and click search.

    5.5.5.5.2.1 Search warrant cover page is form number AOC-CR-119.

    5.5.5.5.2.2 Inventory of Seized Property is number AOC-CR-206.

    5.5.5.5.2.3 Open the PDF version of the forms.

    5.5.5.5.2.4 Once open, type in all of the necessary information on the forms and print.

5.5.5.6 **Procedure for Preparing the search warrant cover page**

5.5.5.6.1 In the matter of box, type "State of NC vs. Offender/Arrestee's Name."

5.5.5.6.2 Name of applicant: Forensic Scientist's name and title.

5.5.5.6.3 Name of additional applicant: fill in if you have an affidavit from another officer that shall be used in the warrant.

5.5.5.6.4 "I made a search of:" place an "X" in the box, put the name of the offender being served in the lines attached to this section and the method by which the sample was collected.

5.5.5.6.5 _____ County: enter the county in which the search warrant is being sought.

5.5.5.7 **Procedure for Preparing the Application for Search Warrant**

5.5.5.7.1 In the first paragraph, type in the Forensic Scientist's name.

5.5.5.7.2 Complete the probable cause section: "There is probable cause to believe that the DNA profile obtained from Item(s) description originated from Offender/Arrestee's Name and that blood and/or saliva from Offender/Arrestee's Name (SID #) shall be necessary for scientific comparison and which constitutes evidence of a crime and the identity of a person participating in a crime, (Crime, G.S. #) and is located" – Check the box beside "On the following person" and fill in the appropriate offender/ arrestee information.

5.5.5.7.3 Make sure the Forensic Scientist qualifications statement is updated (as provided in the example of a qualifications statement in the "Application for Search Warrant" form).

5.5.5.8 Once all search warrant documents have been completed, a second Forensic Scientist shall review these documents.

5.5.6 **Procedure for Getting the Search Warrant Signed**

5.5.6.1 The day before serving the warrant, contact the Superior Court Judges' Office downtown at the Wake County Courthouse.

5.5.6.1.1 The phone number for the office is (919) 755-4100.

5.5.6.1.2 Schedule an appointment to have a Superior Court Judge review the warrant.

5.5.6.2 Judge/Issuing Official's Signature

5.5.6.2.1 Once the Judge/Issuing Official signs and dates all of the appropriate places, fill out the Date Issued and Time Issued boxes on the search warrant cover page. Also, fill out the Date Received and Time Received boxes with the same information as the Issued boxes.

5.5.6.2.2 The Forensic Scientist shall then make two (2) additional copies of the signed and dated forms. The copies of the search warrant cover sheet shall be on specific colored paper (see below). All other documents may be copied on white paper.

5.5.6.2.2.1 White copy B the original.

5.5.6.2.2.2 Pink copy B given to the person served.

5.5.6.2.2.3 Green copy B given to the Clerk of Court where the warrant is returned.

5.5.7 **Procedure for Serving the Search Warrant**

5.5.7.1 Prior to serving the search warrant, the Forensic Scientist shall fill out a new Request for Examination of Physical Evidence Form and prepare two copies of the "Inventory of Seized Property" form. This form shall be given to the subject after the sample has been collected.

5.5.7.1.1 The Forensic Scientist shall first fill in the county where the search warrant was obtained, then in the Name box place "State of NC vs. Offender/Arrestee's Name."

5.5.7.1.2 In the box labeled Person, premises or vehicle searched put "the person of Offender/Arrestee's Name."

5.5.7.1.3 Fill in the date of the search, check the box beside number 1, a search warrant issued by and fill in the name and title of the Judge/Issuing Official.

5.5.7.2 The Forensic Scientist shall take sterile swabs, gloves, coin envelopes, tape, and a sharpie pen for collection and storage of the buccal swab standards from the subject.

5.5.7.3 On the day of service, be prepared to give a copy of the warrant to the person in charge at the jail/prison.

5.5.7.4 The Forensic Scientist shall introduce himself/herself to the subject and state that he/she has a search warrant to serve on him/her for the collection of a DNA sample. The Forensic Scientist shall then read the face of the warrant. As the warrant is being read, note the time the warrant was executed and place this information on the original copy of the search warrant cover page. This information shall be entered in the Date Executed and Time Executed boxes.

5.5.7.5 The Forensic Scientist shall explain to the subject that he/she shall be taking a blood sample/buccal swabbing sample as a standard for comparison.

5.5.7.5.1 Ask if there are any questions.

5.5.7.5.2 If the subject does not cooperate and will not give a buccal swabbing, medical personnel from the jail/prison shall be requested to obtain a liquid blood sample from the subject.

5.5.7.5.3 Whoever collects the liquid blood sample shall sign and initial the packaging and write the subject's name on the tube of liquid blood.

5.5.7.5.4 The Forensic Scientist shall ensure that the tube and packaging are sealed upon collection. This shall also be done if a buccal swabbing is collected.

5.5.7.5.5 After collection, the Forensic Scientist shall then check the box "I seized the items listed on the attached inventory." This area is also located on the search warrant cover page.

5.5.7.6 The Forensic Scientist shall then give the subject a copy of the search warrant cover page (pink) as well as the "Application for Search Warrant (Continuation)" pages.

5.5.7.7 The Forensic Scientist shall also sign and complete a copy of the "Inventory of Seized Property" form and give it to the subject.

5.5.7.7.1 List either buccal swabbings (number of swabbings) and/or blood sample under the statement "The following items were seized."

5.5.7.7.2 On the second page, check box number 1 which states "I left a copy of this inventory with the person named below, who is," then check box "e" which states "the person from whom the items were taken."

5.5.7.7.3 Sign the document in the box labeled Signature of Law Enforcement Officer. The Forensic Scientist shall also include his/her title and agency address.

5.5.7.8 Have the subject sign and date the original copy of the "Inventory of Seized Property" form.

5.5.7.8.1 This is located on the second page and is labeled Acknowledgment of Receipt.

5.5.7.8.2 If the subject refuses to sign, note his/her refusal on the sheet and be sure to sign and date beside this notation.

5.5.7.8.3 The Forensic Scientist shall also get a witness to sign and date the refusal.

5.5.7.9 The Forensic Scientist shall fill out a "Technical Field Assistance" (TFA) Form (which shall serve as the Request for Examination of Physical Evidence Form for the warrant and document the serving of the warrant). The TFA shall be logged in through the Evidence Control Unit (ECU) along with a Request for Examination of Physical Evidence Form for the items collected (which shall document the collection of the buccal swabbings or liquid blood sample). These forms should be logged into ECU as soon as possible after returning to the Lab.

5.5.7.9.1 The Forensic Scientist should also fill out the "Search Warrant Notes" form. This form shall serve as the Forensic Scientist's notes for the TFA report.

5.5.7.9.2 The TFA report shall be completed in FA.

5.5.7.9.2.1 Go to Case Record Details.

5.5.7.9.2.2 Under Worksheets, select New Worksheet, then select Technical Field Assistance.

5.5.7.9.2.3 Fill in:

5.5.7.9.2.3.1 Scene examined.

5.5.7.9.2.3.2 Date.

5.5.7.9.2.3.3 Time.

5.5.7.9.2.3.4   Procedure.

5.5.8   Procedures after Search Warrant has been Served

5.5.8.1   After serving the warrant, the Forensic Scientist shall then travel to the Clerk of Court office in the county where the search warrant was obtained to return the search warrant and "Inventory of Seized Property" form.

5.5.8.2   On the search warrant cover page, the Forensic Scientist shall sign the box labeled Signature of Officer making the return.

5.5.8.2.1   In the box labeled Department or Agency of Officer, put NCSBI.

5.5.8.2.2   The clerk of court or designee shall then sign, date, place the time of day, and check his/her title in the boxes under the heading This search warrant was returned to me on the date and time shown below.

5.5.8.3   The clerk of court or designee shall also sign, date, and check the appropriate box with his/her title on the "Inventory of Seized Property" form. This information is located on the second page and is under the "SWORN AND SUBSCRIBED TO BEFORE ME" section.

5.5.8.4   After the Forensic Scientist and clerk of court have completed all signatures on the paperwork and the clerk has officially filed all of the search warrant forms, the Forensic Scientist shall ask the clerk's office to make two (2) copies of the filed warrant.

5.5.8.4.1   One copy shall be for the investigating officer in the case and the other for the case file. **Note:** the search warrant cover page, "Application for Search Warrant (Continuation)," and "Inventory of Seized Property" forms shall be scanned into the case file in FA.

5.5.8.5   Upon return to the Lab, the Forensic Scientist shall perform the following steps:

5.5.8.5.1   Log in the TFA form, Request for Physical Examination of Evidence Form for the evidence collected, and the evidence through ECU.

5.5.8.5.2   Write the TFA report using FA. Remember that the "Search Warrant Notes" form shall serve as the notes for this report and the TFA shall serve as the Request for Examination of Physical Evidence Form for the warrant.

5.5.8.5.3   Notify the CODIS Administrator that the warrant was served and document on the "Search Warrant Notes" form.

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        5.5.8.5.4   Conduct analysis on the new sample or transfer the sample to the Forensic Scientist who shall be performing the testing.

6.0   Limitations – N/A

7.0   Safety – N/A

8.0   References

State Crime Laboratory Quality Manual

Forensic Biology Section Administrative Policy and Procedure

DNA Database Section Procedure for DNA Database

DNA Database Section Procedure for DNA Database Analysis and Technical Review of Database Samples

DNA Database Section Procedure for DNA Database Review of Contractor Data

Forensic Biology Section Procedure for Genemapper IDX Analysis

Forensic Biology Section Autosomal DNA STR Interpretation Guidelines

Forensic Biology Section Procedure for Casework DNA Interpretation

Forensic Biology Section Procedure for Casework Report Writing

NDIS Operational Procedures, CODIS Website

9.0   Records – N/A

10.0   Attachments – N/A

Revision History		
Effective Date	Version Number	Reason
09/17/2012	1	Original Document
10/26/2012	2	General reorganization of document for clarity; Definitions – updated SDIS, Unidentified Person and Victim; 5.4.1.1 – reworded to allow for entry into Missing Person or Unidentified Human Remains Indices; 5.1.2.4.1 through 5.1.2.4.8 moved to 5.4.12.2; 5.4.2.1 & 5.4.7.1.2 – updated terminology to

		Unidentified Human Remains; 5.4.4 – specified NDIS upload; 5.4.5.1 – indicated that uploads will be performed routinely; 5.4.6 – clarified that all mixtures should be designated as such in CODIS; 5.4.6.4 – incorporated specimen category in 5.4.6.1; 5.4.7.1.6.5 & 5.4.7.2.7 – allows for print to PDF; 5.4.8.2.2 – allows for print to PDF and exception to deletion includes all databasing samples; 5.4.9.1.3 & 5.4.9.2.2– reference to 5.4.9.5.5 added; 5.4.9.1.5 – reference to 5.4.10.3 added; 5.4.9.4.6.1 through 5.4.9.4.6.5 – moved to 5.4.12.1.3; 5.4.9.5.3 – allows for retrieval of sample from CODIS; 5.4.9.5.4 & 5.4.9.5.5 – addition of parameters for keyboard searches; 5.4.9.5.8 & 5.4.9.5.8.1 – moved from 5.4.9.4.9 & 5.4.9.4.10; 5.4.10 – addition of parameters for routine searches; 5.4.11 – moved from 5.4.12; 5.4.12.2 – additional dispositions added, others reworded for clarity; 5.5 – separated into two parts: added 5.5.1 (Forensic hits) and 5.5.2 (Offender/Arrestee hits); added 5.5.3; 5.5.4 – made specific to offender/arrestee hits; 5.5.4.1 – CODIS Admin. will provide match & SIA reports upon completion of confirmation; 5.5.4.2 & 5.5.4.3 – allowed for direct voicemail; 5.5.4.6 & 5.5.4.8.1 – added reference to examples in forms folder; 5.5.5.1 - added reference to affidavit; 5.5.5.2 – added references to example affidavit and review procedures
02/01/2013	3	Definitions – added Composite, DNA Record, Forensic Partial, and Forensic Sample, removed 4X4, reworded Arrestee, Convicted Offender, Forensic Mixture, Forensic Unknown, Match, Missing person, and Unidentified Human Remains; Replaced 5.4.1 and subsections with Procedure for Acceptance of DNA Records at SDIS and NDIS; 5.4.2.1 – added "Forensic Partial"; Removed 5.4.3 and 5.4.5; Added new 5.4.4 Procedure for Match Estimation; Removed old 5.4.6.2.1, 5.4.6.3, 5.4.6.3.1, and 5.4.6.4; 5.4.9.2 – Reworded to "State High Stringency" search; Added 5.4.9.3 – "State Moderate-Stringency" search; Added "Forensic Partial" to 5.4.9.4 "Employee" search and 5.4.9.5.4; Reworded 5.4.9.5.1 and 5.4.9.5.2 to search against Arrestee and Offender Indices; Added new 5.4.11.2.1 "Offender Hit"; 5.4.11.2.2 – added "Arrestee Hit"; Added 5.4.11.2.6 and 5.4.11.2.10 for "Investigative Information" dispositioning; 5.5.3.5 and 5.5.4.8.1 – removed reference to CODIS wording, replaced with reference to Report Writing Procedure. Added Casework DNA Interpretation and Report Writing Procedures to Reference list.

03/08/2013	4	5.4.5.1 – clarified specimen category for mixtures; 5.4.8.3 – changed due to use of match estimator; 5.5.4.5 and 5.5.4.8.2 – removed requirement to notify SAC if prosecution is not being pursued
03/22/2013	5	5.1.1.7 – changed review to combined tech/admin review; 5.4.1.7 – changed SDIS match estimator to be 20 or less; 5.5.4.1 – removed requirement of email regarding completed hit; 5.5.4.5 – email to SAC required prior to completing notification report; removed 5.5.4.4.4, 5.5.4.5.6, and 5.5.4.6; 5.4.6.1.6.2 and 5.4.6.2.2.4 – added partial indicator at locus level
07/31/2013	6	5.1.1.5 – specified non-predominant mixtures; 5.2.3.4 – changed UNISYS to CODIS Helpdesk; 5.4.1.7.2 – corrected typo ; 5.4.5.1 – removed redundant requirement to add non-predominant mixtures to FA worksheet; 5.5.1.1 – CODIS Admin to obtain/document case info, not CW FS; 5.5.2.1/5.5.2.1.1&5.5.2.2/5.5.2.2.1 – CODIS Adm assigns confirmations in SpecMan and provides match report to DB FS; 5.5.2.3 – CODIS Admin is required to document confirmation in FA; 5.5.3/5.5.4 – CW FS no longer required to make phone call on CODIS hits, the CODIS Adm will write notification reports (with the exception of hits to a NCSCL suspect standard); removed reference to NCSCL Procedure for Obtaining Evidentiary Standards
12/18/2013	7	Added issuing authority to header; 2.0 – updated scope to include both Forensic Biology and Database Sections; 5.4.8.4 – requests to CODIS adm required for 1x search of CODIS; 5.4.8.5.9 – corrected typo; 5.5.3.2 & 5.5.3.3 – added solved case; 8-0 – updated references; 5.3.2.2 – removed SBI Director; removed references to SBI-5
04/18/2014	8	Definitions: added For Mix – State, For Partial – State, Multi-allelic Offender, Quality Control, and Staff; removed Employee; clarified NDIS eligibility for For Mix and For Partial. 5.2.3.4 – removed SAIC. 5.4.1.8.2 – removed requirement for unmarking profile & referenced new spec categories ; 5.4.2.1 & 5.4.51 – referenced new spec categories; 5.4.6.2 – clarified pred/non-pred mix; 5.4.8.1, 5.4.8.2, 5.4.8.5 & 5.4.9.4 –renamed to Employee/QC Index; 5.4.9.3, 5.4.9.4, 5.4.9.5 – added multi-allelic offender; 5.3.2 & 5.5.5.7 – corrected typos
08/29/2014	9	5.1.1.4 & 5.4.6.1– import partial profiles, updated to GMID-X; 5.1.1.5 – removed administrator approval; 5.2.1.4 – removed weekly; 5.4.1.7.3 – added threshold for keyboard search; added 5.4.4.5 & 5.4.5.5.1; 5.4.5.1 – removed reference to partially predominant;

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		5.4.6.1.2 – added "Forensic Partial" changed HR to Person; 5.4.6.1.3.1 – updated CMF file type; 5.4.6.1.6.3 – noted to change spec category based on ME; 5.4.6.2 – removed partial; 5.4.7.1 & 2 – clarified timing; added 5.4.8.5.4.1; 5.5.1.1, 5.5.1.1.2, 5.5.2.1.1, 5.5.2.5.4, & 5.5.4.3.5 – clarified status change; 5.5.251 – removed supporting documentation.
12/28/2015	10	Definitions – added Arrestee – State & Offender-State, removed "Forensic" from partial and mixture – state; 5.1.1.6 – corrected reference; 5.1.1.8 – removed reference to DB analyst and CODIS admin; 5.1.1.9 – added duplicate search responsibility; 5.2.2.2 – corrected reference to DB Section; added 5.4.1.2.1; 5.4.1.8.2 – removed Forensic; 5.4.1.6.1 – added reference to homozygote below ST; 5.4.2.1 – updated specimen categories; 5.4.4.2.1 – added exception for match estimation; 5.4.6.1.2 – updated specimen categories; 5.4.6.1.6 – removed requirement to change spec category in CODIS for partial-state (can export out of GMID-X instead); 5.4.9.2 – DB FS will run offender dup autosearch; 5.5.3 & 5.5.4 – cc SAC and case agent on SBI involved hits (no email req'd); 5.5.3.1, 5.5.4.1 & 5.5.4.2.2 – removed FA message requirement