Document Structure

Section 1	***Introduction***	***02***
Section 2	***The CODIS State Administrator***	***06***
Section 3	***CODIS Software***	***08***
Forms:		
Expungement Checklist		***43***
CODIS Match/Hit Review Checklist		***44***
Appendix A	***Sample CODIS letters***	***45***
Appendix B	***Revision History***	***50***

1. Introduction

Reference: NDIS Operational Procedures Manual, version 3, effective January 1, 2015.

1.1 Background

Alaska Statute (AS) 44.41.035 first went into effect on January 1, 1996; authorizing the Alaska Department of Public Safety (DPS) to collect a DNA-containing sample (e.g., blood sample, buccal swab, or both), from persons convicted of a crime against a person, for inclusion in a DNA Identification Registration System. The Alaska Scientific Crime Detection Laboratory is the entity responsible for maintaining this database.

The database was originally restricted to felony offenses or felony attempts under AS 11.41 (except AS 11.41.320) or AS 11.46.400. In the following decade, the law was expanded to include misdemeanor crimes against a person, felonies under AS 11 or AS 28.35, equivalent municipal convictions and registered sex offenders. In July 2007, HB90 further amended this law to include adults arrested for qualifying offenses. AS 44.41.035(b) identifies the offenses that qualify an individual for inclusion in the database.

As outlined in AS 44.41.035(f), the DNA Identification Registration System is confidential and may only be used for providing DNA identification for law enforcement purposes and for statistical blind analyses. Allowing unauthorized access to the database samples or data derived from those samples is a class C felony.

Offenders whose DNA profile is part of the database are entitled to a copy of their DNA profile. When the laboratory receives such a request, a CODIS Administrator will notify the laboratory legal assistant. Either the administrator or the legal assistant will reply to the offender (or the offender's legal representative), providing an STR table of the offender's profile. A record of this communication will be retained electronically, in the Laboratory Information Management System (LIMS). The Specimen Detail Report from CODIS will not be released to the offender. When access to the database, not permitted by statute, is requested, a CODIS Administrator will promptly notify the laboratory legal assistant and the NDIS custodian.

Law enforcement may request to use an offender sample as a known reference sample in a specific case or set of cases. The laboratory will inform the agency that database samples collected in accordance with AS44.41.035 are intended to provide investigative leads in unsolved cases, not for use as known reference samples. It will be recommended that the agency attempt to obtain a legal sample for use in forensic casework. If this is not possible, and a forensic question sample(s) in the case is eligible for CODIS entry, it will be entered into the database and searched against offenders in the database. Matches will be reported as in Section 3.6.

1.2 The Process of DNA Registration

Offender (qualifying convicted offender / qualifying arrestee) DNA samples are collected by correctional centers and law enforcement agencies in Alaska and submitted to the laboratory for inclusion in the DNA Identification Registration System. Thumbprints from the offender are collected simultaneously and submitted along with the DNA sample. The department provides agencies with DNA Database Collection Kits to facilitate the process of DNA and thumbprint collection. Each kit includes a DNA collection card, where the offender's personal information and thumbprints are recorded, and sterile swabs for collecting the DNA sample. Instructions for sample collection and submission are included with each DNA Database Collection Kit. The laboratory has also created a video for training law enforcement in the collection process.

The offender DNA samples and accompanying thumbprints are received by the laboratory via U.S. mail or hand delivery. DNA collection kits are typically received in the evidence section, and opened and inspected to assess the integrity of the contents. Samples with questionable integrity are brought to the attention of a CODIS Administrator and may still be suitable for analysis. A CODIS administrator will determine the course of action for samples of questionable integrity.

The DNA Identification Registration System is managed in the LIMS. Offender samples received by the laboratory are logged into the LIMS and assigned unique numeric identifiers. Detailed information on this process is contained in the Forensic Science Support / Evidence Control Manual. The LIMS is used to track whether or not an individual's qualifying arrest or conviction has been verified, if the identity of the individual has been verified by the thumbprints, and if the sample has been assigned for analysis and entry into CODIS. The LIMS is also used to track duplicate samples and any CODIS matches associated with a particular sample.

Once the sample is logged into the LIMS, the portion of the DNA collection card containing the offender's thumbprints is separated from the DNA sample. Both portions are barcode labeled with the unique identifier and stored at the laboratory pending analysis, and indefinitely thereafter (exceptions described in Section 3.2). The portion of the card containing the thumbprints may be temporarily transferred to DPS Records and Identification (R&I) for verification of the offender's identity. Verification is indicated by the date and initials, on the card, of the person performing the identification.

1.3 The Combined DNA Index System (CODIS)

CODIS is a computer database designed to house DNA profiles from convicted offenders, juveniles adjudicated as delinquents, arrestees, unidentified human remains, voluntary donors and forensic samples, in various searchable indices. The purpose of CODIS is to create a national information repository where CODIS sponsored laboratories can share DNA information. The comparison of DNA profiles between different laboratories has the potential for generating investigative leads by locating DNA matches between cases previously thought to be unrelated, and to identify putative perpetrators in unknown suspect cases.

As previously described, Alaska Statute 44.41.035 authorizes the Alaska Department of Public Safety to establish a DNA Identification Registration System containing DNA samples from qualifying arrestees, convicted offenders and certain other individuals. DNA samples from qualifying individuals are analyzed in-house. The resulting genetic profiles are technically reviewed and entered into CODIS.

The CODIS database is comprised of indices at three distinct levels: Local, State, and National. The State DNA Index System (SDIS) for Alaska is located at the laboratory. The profiles from samples in the various indices are searched against each other at the state level.

The State of Alaska does not have local (LDIS) laboratories. In states with LDIS laboratories, profiles are first searched at the local level and then uploaded to the state (SDIS) laboratories, where they are searched against all eligible profiles within that state.

The National DNA Index System (NDIS) is a centralized index of DNA profiles maintained by the Federal Bureau of Investigation (FBI). Eligible DNA profiles from offenders (including juveniles and arrestees) and forensic samples believed to be associated with “putative perpetrators” are contributed to NDIS by the state laboratory. The profiles from forensic samples are searched at this level against the Offender Index and against other forensic profiles in the Forensic Index. A set of 13 core STR loci for use in NDIS was established by the FBI-sponsored Short Tandem Repeat Standardization Project. Participants in the project were from 21 public laboratories throughout the U.S. and Canada. In November 1997, the participants of the project agreed that the set of core loci required for NDIS participation were to be as follows: D3S1358, FGA, vWA, D8S1179, D21S11, D18S51, D5S818, D13S317, D7S820, D16S539, CSF1PO, THO1 and TPOX.

As described in the NDIS Procedures Manual and the NDIS Standards for Acceptance of DNA Data, CODIS users who generate data for inclusion in the database are required to complete an annual review of the specimen categories accepted at NDIS, and additional rules governing the upload of data. The annual review and test are

completed on the CJIS SEN (Criminal Justice Information Services Shared Enterprise Network; i.e. the NDIS network). Upon successfully completing the test, the user is able to print out a certificate that will be retained in the individual's training record in the LIMS. Completion of the review and test are monitored electronically by NDIS and individuals not successfully completing the test by the deadline will be temporarily unable to contribute data to NDIS.

The CODIS software is provided to the laboratory by the FBI. Upgrades and modifications to the software are periodically provided to the laboratory by the FBI through an FBI contractor. CODIS is a dynamic system, and therefore undergoes both major and minor software upgrades, which may cause the actual operation of the software to vary slightly from what is described in this document. Periodic updates to this manual will be made to accommodate these changes.

The policies, procedures and work instructions outlined in this manual are meant to supplement the NDIS Procedures and applicable federal and state laws. The use of the CODIS system in Alaska is in accordance with the most current versions of this manual and the NDIS Operating Procedures, federal and state laws, and the policies and procedures of the FBI and their contractor(s). Portions of this manual are taken from these materials. In accordance with the CODIS License Agreement between the department and the FBI, the laboratory is strictly prohibited from copying or distributing the CODIS software and associated written material to individuals or organizations outside of the department without approval from the FBI.

2. The CODIS State Administrator

2.1 Duties and Responsibilities

The CODIS State Administrator serves as the manager in charge of the DNA Identification Registration System and CODIS, at the Alaska Scientific Crime Detection Laboratory. At the laboratory, one on-site individual serves as the administrator for both casework and database operations. The State Administrator is the central point of contact for CODIS operations in the laboratory and serves as the gatekeeper for DNA data entered into CODIS. The laboratory shall not upload data to NDIS if the administrator position is vacant.

The State CODIS Administrator is responsible for administering the laboratory's CODIS network, scheduling and documenting the CODIS computer training of analysts, assuring that the security and quality of data stored in CODIS is in accordance with state and/or federal law and NDIS operational procedures, and assuring that matches are dispositioned in accordance with NDIS operational procedures. The Administrator will also keep DNA discipline members informed of changes and updates to NDIS procedures. The Administrator is typically notified of these changes/updates via bulletins from the CODIS unit. Bulletins containing information pertinent to the discipline are made available for all discipline members to read. Discipline members will initial and date the bulletin to acknowledge that they have read and understood this information, and the bulletin is retained in the LIMS. Bulletins solely for the use of CODIS administrators are available on the CJIS SEN and do not need to be retained at the laboratory. Administrator functions related to CODIS hardware and software may be delegated to the department's IT (Information Technology) staff with CODIS clearance (CODIS IT Users).

If a situation arises that affects the reliability or security of the data and operation of CODIS, the State Administrator has the authority to terminate an analyst's or the laboratory's participation in CODIS until the reliability and security of the computer data can be assured. The DNA technical leader shall inform the CODIS Administrator of all non-administrative discrepancies that affect the typing results or conclusions (in an analyst's proficiency test) at the time of discovery.

The CODIS Administrator shall coordinate with the Technical Leader to appoint a designated individual to serve as an alternate administrator. The alternate administrator will act, if required, in the absence of the State Administrator and may assist the State Administrator with routine management of the CODIS system. This individual must also complete the CODIS User Training Class and the FBI DNA Auditor training.

2.2 Qualifications

The CODIS administrator and alternate must be employees of the laboratory and must meet the educational and experience requirements as set forth in both the QAS for Forensic DNA Testing Laboratories and the QAS for DNA Databasing Laboratories. The persons must also be current or previously qualified casework DNA analysts with documented mixture interpretation training.

The administrator and alternate shall have training on the operation and management of the CODIS system. The FBI auditor training shall be completed within one year of appointment, if not previously attended. Although not required, it is recommended that both administrators complete training on the current Quality Assurance Standards. The FBI sponsored CODIS software training shall be completed (for the current version of the software) within six months of appointment, if not previously attended.

Additionally, these individuals shall have a minimum of 8 hours of continuing education per calendar year that is relevant to developments in DNA typing and shall participate in a program for review of scientific literature.

The laboratory shall maintain documentation of CODIS administrators that have had their education, experience, and training qualifications evaluated and approved during two external audits.

3. The CODIS Software

All CODIS software functions are accessed by opening the Analyst Workbench program.

3.1 STR Data Entry

All specimens to be entered into or searched in CODIS shall be subjected to two concordant assessments by a currently qualified analyst and a technical reviewer. Alternatively, the laboratory may use an NDIS approved Expert System package.

The manual technical review of a specimen shall include a review of all notes, worksheets and electronic data supporting the results; a review of all DNA types to verify that they are supported by the raw or analyzed data; a review of all controls, internal lane standards and allelic ladders to verify that the expected results were obtained; and a review to confirm that reworked samples have appropriate controls. The review of forensic specimens shall also include verification of the profile's eligibility for CODIS, that the correct DNA types are obtained and entered, and a means of assuring that the sample is assigned to the appropriate specimen category. The review of specimen eligibility and specimen category occur prior to entry. This is documented on the review checklist. The laboratory shall request appropriate elimination standards prior to entry of forensic unknowns/mixtures into CODIS. This request shall be documented in the LIMS. The technical review of a forensic profile is indicated on the sample electropherogram and Specimen Detail Report (reviewer's date and initials), and on the review checklist. The review of offender data is documented with a review checklist. Additional information on the review of casework and offender samples can be found in the relevant Forensic Biology Procedure Manuals.

On occasion, it may be appropriate to modify an offender entry based on subsequent typing of another sample from the same individual. For example, an offender sample may yield only a partial profile, but a sample submitted later in casework yields a complete profile. The offender entry may be updated with data obtained from the subsequent sample. Typically, this will be done only when the initial entry was incomplete at the original 13 core CODIS loci. Owing to software permission restrictions, modification may need to be coordinated with the original analyst or a CODIS administrator. The analyst modifying the record shall verify (through biographical information) that both samples are from the same individual. Modifications to the record and verification of identity are noted in the comments section of the SDIS details. The updated record is technically reviewed and provided to the CODIS Administrator for reconciliation with the next NDIS upload. The SDIS details printout does not need to be retained once the reconciliation report is archived.

Similarly, a casework sample originally entered as a mixture may later be modified based on additional evidence being worked or a CODIS match occurring. Any updates to casework entries must be technically reviewed with the SDIS details being added to the case record.

DNA profiles generated at the laboratory will be entered into CODIS either via manual entry or as a CMF file (common message format). DNA profiles from casework are entered into CODIS manually via the “STR/Y-STR Data Entry” function under the Tools drop-down menu. CMF files are used to upload offender batch files to SDIS via Specimen Manager. Detailed instructions on uploading offender batches are provided in the Forensic Biology Database Procedures Manual.

Each profile entered into CODIS will have a unique Specimen ID (typically the laboratory case and item #) and be assigned to a particular specimen category. The following specimen categories are accepted in Alaska’s SDIS: arrestee, biological child, biological father, biological mother, biological sibling, CO duplicate, convicted offender, deduced victim known, detainee, forensic mixture, forensic mixture Alaska, forensic partial, forensic partial Alaska, forensic unknown, maternal relative, missing person, multi-allelic offender (an offender with more than two alleles at two or more loci), paternal relative, staff (profiles of laboratory staff obtained by written consent), staff duplicate (analyst samples randomly placed in offender batches for quality assurance purposes), unidentified person and volunteer (samples submitted by law enforcement that are accompanied by written consent for entry into the CODIS database).

The laboratory may respond to inquiries from Alaska law enforcement or other SDIS labs regarding the presence of an offender in CODIS. These inquiries may be verbal or in writing and the laboratory will confirm the name and DOB. A record of the communication is kept in the offender case record in the LIMS.

3.1.1 Manual Entry of Profiles of Offender Specimens

Profiles of Convicted Offender and Arrestee specimens will be entered into CODIS with a specimen ID that is identical to the unique identifier assigned to the sample upon receipt at the laboratory.

The steps below outline the procedure for manually entering an offender profile into CODIS:

a. Open the STR Data Entry feature under the Tools drop-down menu
b. Enter the numeric Specimen ID
c. Select the appropriate Specimen Category; Convicted Offender, CO Duplicate (for samples known to have an offender sample already in CODIS) or Arrestee (Samples originally entered as Arrestee should remain in the Arrestee specimen category even if the person is later convicted of the offense for which the arrestee sample was collected.)
d. The name of the analyst entering the profile will be populated automatically
e. Case ID is left blank
f. Select Yes for Source ID
g. Additional pertinent information may be entered in the Comments field
h. Enter both the first and second readings, verifying that there are no discrepancies between the readings.
i. Set the partial profile flag to yes at any loci with partial dropout and save the entry.
   Note: Marking a locus as partial will automatically trip the flag for the sample. A sample for which there is only complete locus dropout does not require a partial flag to be marked yes.
j. Print 2 copies of the Specimen Detail Report.
k. It is optional to search the profile at this time using Searcher. This may be done using the Search button. Samples not searched manually will be searched as part of the nightly autosearch.

All paperwork generated in the course of profiling offender samples (in casework batches) will be retained in the offender record in LIMS. One copy of the specimen detail report for each sample entered manually is reviewed (specimen ID, specimen category, source ID, partial profile and data entry) and included with the paperwork in LIMS. A second copy is given to a CODIS Administrator after review has been completed. This signals to the Administrator that the sample may be searched and uploaded to NDIS, if eligible.

3.1.2 CODIS Entry of Data Generated by a Contract Laboratory

The procedure for importing data generated by a contract laboratory will vary depending on the version of the CODIS software and the format in which data is received. Therefore, as needed, detailed procedures will be written that are specific to the contract laboratory at the time of analysis. These procedures will be retained with the data and administrative paperwork associated with the specific contract.

Whenever samples for CODIS are to be analyzed at a vendor laboratory, the laboratory's DNA technical leader will document and maintain the approval of the technical specifications of the contract between the laboratory and the vendor laboratory. This approval must occur prior to awarding the contract. Additionally, the technical leader will maintain documentation of the vendor laboratory's compliance with the FBI QAS standards and the accreditation requirements of federal law. Similar procedures must be followed if the laboratory will be taking ownership of data generated as a result of a contract between a vendor laboratory and a law enforcement agency. An on-site visit of the vendor laboratory will be performed as outlined in standard 17.7 of the QAS for Forensic DNA Testing Laboratories.

All data generated by a contract laboratory must be technically reviewed by the laboratory prior to entry or searching in CODIS. This review must be performed by an employee of the laboratory meeting the requirements in standard 17.6 of the QAS for Forensic DNA Testing Laboratories, and will include a review of the elements identified in standard 17.6.1 of the QAS for Forensic DNA Testing Laboratories. This review is documented using a review checklist that will be retained by the laboratory. The laboratory will also incorporate random reanalysis of samples and/or the inclusion of QC samples to verify the integrity of the data analyzed by a vendor laboratory under contract with the laboratory.

3.1.3 Forensic Casework Profiles

Profiles from biological samples found at the scene of the crime are entered into the Forensic Index of CODIS. As per the NDIS operational procedures, only forensic profiles that are attributable to the "putative perpetrator" may be entered into CODIS. Profiles or alleles unambiguously attributed to other individuals (i.e. victim, boyfriend, husband, known eliminations) are not acceptable. When there is ambiguity as to the origin of a profile or alleles, the profile may be entered if there is a possibility of the perpetrator being the source. Justification for entry of questionable samples should be documented in the comments section during data entry.

A forensic casework profile that matches a suspect may be entered into CODIS. If the DNA results in a case indicate that only one perpetrator is involved, only the most complete or most probative STR profile for that case matching the suspect will be entered into CODIS. Additional profiles appearing to be from the same suspect, but with less genetic data, will not be entered into CODIS. In forensic cases involving more than one perpetrator, more than one STR profile may be entered into CODIS if the probative profiles from different items of evidence are found to be consistent with different individuals.

The steps below outline the procedure for entering a forensic profile into CODIS:

a. Open the STR Data Entry feature under the Tools drop-down menu
b. Enter Specimen ID (ex. U04-0652 55KC) with the following required elements
    - "U" is only entered for a sample whose source is unknown
    - 04-0652 is the laboratory case #
    - 55KC is the laboratory item # (may have the # sign in front of the item)

c. Select the appropriate Specimen Category (typically Forensic Unknown, Forensic Partial, Forensic Partial Alaska, Forensic Mixture or Forensic Mixture Alaska)
d. Verify the name of the analyst entering the profile
e. Case ID is left blank
f. Select Yes or No for Source ID
g. In Comments, enter the agency name, type of case and other pertinent information
h. Enter the first and second readings, verifying that there are no discrepancies between the readings.
i. Set the partial profile flag to yes at any loci with partial dropout and save the entry.
   Note: Marking a locus as partial will automatically trip the flag for the sample. A sample for which there is only complete locus dropout does not require a partial flag to be marked yes.

j. It is optional to search the profile at this time using Searcher. This may be done using the Search button. If there is a match identifying the source of the sample, the source ID is changed to Yes and the profile saved again. Samples not searched manually will be searched as part of the nightly autosearch.
k. Print 2 copies of the Specimen Detail Report. One copy is reviewed (refer to section 3.1 of this document) and then initialed and dated by the technical reviewer for retention in the case record. The second copy is provided to the State Administrator upon completion of the review. This signals to the Administrator that the sample may be searched and uploaded to NDIS, if eligible.

3.1.3.1 Forensic Mixtures

A forensic mixture profile composed of alleles from more than one individual may be suitable for entry into CODIS if all or part of the profile may be attributed to the putative perpetrator(s).

The mixture profile should be evaluated to determine whether it is appropriate to enter the whole mixture profile, only the major or minor component, only those alleles clearly foreign to the victim, or not enter the profile into CODIS at all. It is recognized that some mixture profiles are simply not suitable for entry into CODIS. Profiles that are not suitable for comparison or suitable for exclusions only (as per the Forensic Biology Discipline Procedure Manual) shall not be entered into CODIS.

A forensic mixture profile is not appropriate for entry into CODIS if it is concluded that a search of this profile will result in a large number of ambiguous offender hits, or that such a profile will frequently become an ambiguous candidate when searches are made of forensic profiles. The DNA analyst shall evaluate the profile using the Match Estimator (in the CODIS software) to determine whether that profile is appropriate for entry into SDIS. Profiles that are eligible for SDIS are entered via STR Data Entry, at which point NDIS eligibility is determined based on the Moderate Match Estimation (MME).

When entering multiple alleles at one locus, the analyst may designate obligate alleles using a '+' sign after the allele. Only one obligate allele can be designated per locus. The goal is to capture the profile attributable to the "putative perpetrator." As necessary, the analyst may consult with a CODIS Administrator or another qualified analyst to make this determination.

When the method of entering the profile allows for the possibility of additional perpetrator alleles that were not entered, the analyst should indicate this with a Yes in the partial profile field. When alleles attributed to the victim or other known individuals

are subtracted from the profile (intentionally not entered), this should be indicated in the Comments field.

3.1.3.1.1 Match Estimator

The Match Estimator (in the Popstats module of the CODIS software) is used to assess Forensic Mixtures and Forensic Partial profiles to determine their suitability for entry into SDIS. Profiles not meeting the required threshold will not be entered.

Procedure

a. Open Popstats (in the Analyst Workbench) and double click on Match Estimation to open the tool
b. In the Target Profile window, enter the sample Specimen ID
c. Set the size of the database to the approximate size of the state database. The State Administrator will update this number at least twice yearly and post it next to the CODIS workstations. Confirm that the configuration is set to use the Alaska population database.
d. Leave the Loci Allowed to Miss set to zero
e. Enter the profile using the numeric keyboard. Obligate alleles may be designated with the + sign
f. Click Calculate. Click Print, and then Match Estimation Report.
g. The Match Estimation Report will be provided to the technical reviewer along with the other materials being submitted for review. The Match Estimation Reports are not retained in the case file once review has been completed.

Interpretation

Samples that are estimated to generate 10 or less matches in the state database may be entered into SDIS.

Profiles that don't meet match estimation requirements, but would otherwise be eligible for entry are listed on the STR review checklist with a notation regarding the failed match estimation.

3.1.3.1.2 Moderate Match Estimation

Profiles that are eligible for SDIS entry are entered and assessed for NDIS eligibility as follows.

Procedure

a. Enter the profile as described in section 3.1.3, steps a through i, in the specimen category Forensic Mixture Alaska.
b. The MME is automatically calculated when the profile is saved.
c. If the MME satisfies the NDIS threshold of 10 million (1.0000E007), the profile is eligible for upload to NDIS.
d. Change the specimen category to Forensic Mixture, copy and paste the MME into the comments field and resave the profile.
e. Continue with steps j and k of section 3.1.3

3.1.3.2 Forensic Partial Profiles

For the purposes of CODIS, a partial profile is a profile in which potential allelic peaks from the perpetrator(s) are visualized below the reporting threshold (suggesting allelic dropout) at one or more core loci. These profiles may be entered either as Forensic Partial or Forensic Partial Alaska, depending on whether they meet the match estimation threshold for SDIS and the moderate match estimation threshold for NDIS. Partial profiles that meet only the SDIS threshold will be entered as Forensic Partial Alaska. These profiles are not uploaded to NDIS. Profiles meeting the NDIS threshold are entered as Forensic Partial. Follow the procedures in sections 3.1.3.1.1 and 3.1.3.1.2 to determine eligibility.

3.1.3.3 Profiles of Missing Persons, Unidentified Human Remains and Relatives of Missing Persons

Profiles of missing persons or unidentified human remains are entered into CODIS in the Specimen Category Unidentified Person. Source ID will initially be No for these samples. These samples must contain at least 8 STR loci and Amelogenin to be eligible for upload to NDIS. Relatives of Missing Persons may be entered into one of the following specimen categories with the Source ID marked Yes: Biological Child, Biological Father, Biological Mother, Biological Sibling, Maternal Relative or Paternal Relative. The Specimen ID for these samples consists of the laboratory case and item #s as described above for forensic casework profiles.

3.1.3.4 Composite Profiles

Composite genetic profiles are defined as being created by combining typing results from multiple injections of a single amplification and/or multiple amplifications of a single DNA extract.

The laboratory allows for entry of composite profiles of forensic samples when doing so is likely to have the impact of reducing the number of coincidental matches to a profile. A composite genetic profile should not be entered into CODIS when the reportable STR results are not suitable for comparison or are suitable only for exclusions (see Data Interpretation section of the Forensic Biology Discipline Procedures Manual). When composite genetic profiles are entered into CODIS, descriptive comments should be included in the comments section during STR data entry.

Composite profiles of offender samples, created by combining the typing results from separate extracts, are acceptable for entry and upload to NDIS. Prior to creating this type of composite profile, the biographical information and overlapping loci shall be verified as being concordant.

3.2 Administrative Removal / Expungement of Profiles

It is recognized that occasionally a profile that was previously entered into CODIS will need to be removed or expunged. A CODIS Administrator will promptly delete a profile from a Convicted Offender (including a juvenile) or Arrestee upon receipt of a court order to expunge (in accordance with AS44.41.035, DNA Identification Act of 1994, DNA Analysis Backlog Elimination Act of 2000, and DNA Fingerprint Act of 2005), if the individual does not have another offense that currently qualifies them for inclusion in the database.

Expungement is the removal of a DNA record at the state and/or national index levels in response to the following:

- A court order that has overturned an offender's conviction for a qualifying offense.
- A court order establishing that charges were dismissed or resulted in acquittal, or no additional qualifying charges were filed within the time period established by the court order.

An *Expungement Checklist* is to be started any time a court order directing deletion of a profile from a Convicted Offender (including a juvenile) or Arrestee is received. A CODIS Administrator will search LIMS to determine if the laboratory has a DNA database sample(s) from the individual and/or a profile has been entered into CODIS.

If no samples are located and no profile has been entered, a letter is sent to the originator of the expungement request indicating that the laboratory does not have any offender samples from the individual and no profile has been entered. This letter may be authored by a CODIS Administrator or the laboratory legal assistant.

If any samples are located and/or a profile has been entered, the laboratory legal assistant will be asked to search for any currently qualifying offenses. If any are found, this is noted on the checklist. The CODIS Administrator or laboratory legal assistant will provide the department's legal counsel with information relating to the expungement order and any qualifying offense that is outside the scope of the expungement order. All DNA samples, DNA profiles, and personal information are to be retained by the laboratory until a course of action is determined by the department's legal counsel. If legal counsel advises that the sample may be retained, this will be communicated ,in writing, to the originator of the expungement request. If department legal counsel directs that a profile be deleted and/or samples destroyed, the CODIS administrator (or designee) will proceed with expungement as described below.

If no other qualifying offense is identified, the CODIS administrator (or designee) will retrieve the offender information card and DNA sample, transfer custody of the items to him/herself and then to the expunged location. If there is a pending request in the LIMS, it shall be cancelled. Notify the assigned analyst if analysis is in progress. If a DNA profile has been entered into CODIS, details of the reason for removal should be placed in the Comments section of the specimen record and the specimen deleted from CODIS.

a. Locate the sample in Specimen Manager, highlight the specimen and then click on the STR Data Entry icon in the toolbar.
b. The specimen will open in STR Data Entry where the comments can be recorded. These comments will be captured on the SDIS Specimen Deletion Report.
c. Save the specimen and close STR Data Entry.
d. Right-click on the specimen in Specimen Manager and select Delete Specimen from the drop down menu. The corresponding SDIS Specimen Deletion Report will be retained for documentation purposes.
e. If the profile of the specimen requiring administrative removal / expungement has been uploaded to NDIS, deletion from NDIS will occur at the upload session immediately following specimen deletion from SDIS. Reconciliation reports documenting the specimen's removal from NDIS will be retained along with the other relevant documentation.

The personal information record in LIMS will also be expunged. This is accomplished by locating the offender's record and removing the name, date of birth and APSIN (State ID) number in the Individuals tab. The record is then secured by right mouse clicking on the Case Info tab in LIMS and selecting Restrict Case. This should only be done by the Laboratory Manager or a CODIS Administrator.

The buccal sample is placed in the trash (biohazard receptacle if a blood sample) and the print portion of the card is shredded. Both of these steps must be witnessed and recorded. A letter confirming compliance with the order to expunge will be sent to the originator of the expungement request.

The court order to expunge, the *Expungement Checklist,* Specimen Deletion Reports from CODIS and a copy of the letter indicating compliance will be retained by a CODIS Administrator.

When records for offenders are expunged/removed, R&I should be notified to reset the appropriate flag in APSIN (if the card was previously sent to R&I for latent verification). This notification may be done by e-mail. A record of this communication will be retained with the other related paperwork.

3.2.1 Samples Collected for Non-Qualifying Offenses

Occasionally, a sample received by the laboratory for entry into CODIS is destroyed prior to being logged into LIMS. Typically, this occurs when the laboratory becomes aware, prior to the sample being logged into LIMS, that the individual does not have a qualifying offense. A record of these samples (individual's name and date of birth) is retained by a CODIS Administrator. These samples do not require an *Expungement Checklist* and destruction of these samples does not need to be witnessed.

Prior to reporting a CODIS hit, the qualifying offense for the offender must be verified. If it is determined that the sample was collected for a non-qualifying offense, the sample will be destroyed and the individual's record secured in LIMS. Removal of these samples from LIMS and CODIS is accomplished by the same procedure as an expungement, except that notification is not required upon completing the removal. If it is determined that the sample was collected for a qualifying offense, but is eligible for expungement in accordance with AS44.41.035, the laboratory may retain the sample and related records as long as no court order for expungement has been received by the laboratory.

3.2.2 Samples Determined not to be from the Putative Perpetrator

Additionally, forensic samples in CODIS that are later identified as originating from someone other than the putative perpetrator must be removed from CODIS. Prior to deleting a specimen, details of the reason for removal should be placed in the Comments section of the specimen record as described above. The corresponding SDIS Specimen Deletion Report will be placed in the case record (hard copy or electronic) for documentation purposes. These administrative removals do not require an *Expungement Checklist*.

As previously indicated, if the profile of the specimen requiring administrative removal / expungement has been uploaded to NDIS, deletion from NDIS will occur at the upload session immediately following specimen deletion from SDIS. Reconciliation reports documenting the specimen's removal from NDIS will be retained along with the other relevant documentation.

3.3 Searching the CODIS Indices

The Searcher and Autosearcher programs are the CODIS software modules that permit the searching of DNA profiles from various indices against other DNA profiles. Different search configurations are used depending on the type of sample being searched. Searches are conducted in accordance with federal/state law and the NDIS procedures. Detailed information on the use of these programs is contained in the CODIS Software training manual (provided during the FBI sponsored software training class).

3.3.1 Use of Searcher at the time of data entry

Upon entering a new forensic or offender sample into CODIS, the CODIS analyst may perform a search of the appropriate sample indices for potential matches between the new sample and samples already in the database. Manual searching is not required since Autosearches are scheduled to run nightly.

Typically, forensic profiles can be searched with the default configuration. The default search configuration requires that a forensic profile have 10 of the 13 core loci to be searched. Matches will be returned for samples with at least ten loci that match at moderate stringency. When searched with these search parameters, some forensic profiles (such as mixture profiles, partial profiles, and profiles that are homozygous at several loci) may result in a large number of ambiguous candidate matches. The search stringency may be customized to high at some loci to allow for a more efficient search. If a sample has less than 10 loci, the analyst will need to modify the configuration to require less than 10 loci to report a match. Customization of the search stringency must be done with careful consideration. The main goal is to not erroneously eliminate the actual perpetrator from the pool of candidates by improper stringency customization when the search is conducted. CODIS analysts may seek the assistance of a CODIS Administrator or another qualified analyst for non-routine searches. The search parameters are included as part of a match detail report and do not require separate documentation.

If matches other than self matches are returned, the analyst should print the matches to assess, disposition, and follow-up, if necessary. The analyst will then assess each possible match by a locus to locus comparison and disposition matches in the disposition window. Matches may also be dispositioned by a CODIS Administrator. Candidate matches, at less than high stringency, between an offender and an unknown forensic specimen or between two forensic specimens (at least one in which the source is unknown) require assessment by two qualified analysts. This assessment is documented by the initials of both analysts (along with the disposition) on the match details report. Self-matches do not require any action. The analyst can close Searcher without saving the matches as they will be duplicated during the scheduled autosearch. A list of possible dispositions is provided in Section 3.5. If there is a forensic or offender hit (e.g., identifying the source of a sample that was previously unknown) the source ID should be changed to Yes and the specimen re-saved in STR Data Entry.

Match detail reports will be printed out for all matches that cannot be immediately dispositioned as conviction match, benchwork match or offender duplicate. Match detail reports for matches ultimately dispositioned as forensic and offender hits will be retained with the case record(s). Section 3.6 contains information on match confirmation and reporting of forensic and offender hits.

3.3.2 Use of Autosearcher

An autosearch of the database is performed to detect possible matches not previously identified by the CODIS analysts. Several autosearch configurations are available depending on the purpose of the search. Autosearches to identify offender duplicates and casework matches are scheduled to run automatically. A CODIS Administrator will assess and disposition matches resulting from autosearches. Configurations in addition to those discussed below may be used on a case by case basis.

Matches identified using Searcher (and saved in Match Manager) will be identified again with Autosearcher. These duplicate matches are dispositioned as “Duplicate” in CODIS, referencing the original match in the disposition comments.

3.3.2.1 Duplicate Offenders

The Duplicate Offender configuration is used to search for offenders with more than one offender sample in CODIS. This search is performed after an upload of an offender batch to SDIS, and before the batch is uploaded to NDIS. It is scheduled to occur each weeknight and results will appear in Match Manager. Alternatively, the search can be performed manually by a CODIS Administrator. Approximately 5% of the samples in an offender batch will be quality control samples. These samples may be staff duplicates, previously typed offender samples, or an offender duplicate for a sample in the current run. The results of the duplicate offender search will be checked to verify that the matching samples are indeed duplicate samples from the same offender, or in rare cases, samples from identical twins. This check may involve a latent examiner doing a comparison of the thumbprints from the database cards.

Once the samples are verified as duplicates, for matches between two convicted offenders, the specimen category of the sample with the most complete profile remains as Convicted Offender and the other changed to CO Duplicate. If both profiles are complete, either one may be changed to CO Duplicate. When the match is between a convicted offender sample and an arrestee sample, the specimen category for the arrestee is changed to CO Duplicate.

When an offender that was originally entered with Penta data is re-worked with an expanded core kit (ex. GFE), the original entry is changed to CO Duplicate and the new profile will get the Convicted Offender or Arrestee category. The Penta data may be transcribed into the new entry. This should be reflected in the comments section of the specimen.

CO Duplicates are not uploaded to NDIS. Therefore, when a CO Duplicate is the more complete profile, STR data can be transcribed to the non-duplicate sample to allow for upload to NDIS. This should be reflected in the comments section of the specimen. If a sample already at NDIS is changed to CO Duplicate, the sample is automatically unmarked and removed from the NDIS level upon the next upload from the state laboratory. This will be indicated on the next reconciliation report from NDIS.

The administrative review of a batch of offender samples must include a review of all matches resulting from an Offender Duplicate search. If the search results in a high stringency match between two samples that do not appear to be duplicates from the same individual (or identical twins), the Administrator and/or Technical Manager will be notified and available options will be discussed to discover the source of the discrepancy. Samples from the batch with the discrepancy will not be uploaded to NDIS until the discrepancy is resolved and/or approval is received from the DNA Technical Manager.

Once all matches from the search have been reconciled, Staff Duplicate samples (processed and uploaded as part of the 5% quality assurance samples) and Staff Duplicate matches may be deleted. This is done periodically by a CODIS Administrator.

3.3.2.2 AK New

The AK New configuration is used to search samples newly entered into CODIS. This search is scheduled to occur each weeknight and searches all of the indices except Relatives of Missing Persons. Alternatively, analysts may perform the search at the time of entry for new samples.

All candidate matches generated in Autosearcher are saved to Match Manager automatically. A CODIS Administrator or other qualified DNA analyst will assess each possible match by a locus to locus comparison and disposition the match in Match Manager. Candidate matches, at less than high stringency, between an offender and an unknown forensic specimen or between two forensic specimens (at least one in which the source is unknown) require assessment by two qualified analysts. This assessment is recorded on the match detail report that is later reconciled with the monthly match report (section 3.5). If there is a hit identifying the source of a sample that was previously unknown, the source ID is changed to Yes.

Match detail reports for forensic and offender hits are retained with the case record(s). Section 3.6 contains information on confirmation and reporting of intrastate forensic and offender hits.

Periodically, the CODIS Administrator will run searches to encompass samples with less than 10 core loci, and samples in the batch target file. Candidate matches are handled in the same manner as those resulting from the AK New search.

3.3.3 Search Requests from/to Agencies Outside of Alaska

Occasionally, the laboratory receives requests from law enforcement and other agencies outside the State of Alaska for searches of the Alaska database. Requests from the FBI, Interpol and other CODIS Administrators may be searched. The request must be received on the DNA Search Request by Facsimile Official Form (or current version available on the CJIS SEN). All such requests will be directed to the State Administrator, or designee, who will process the search request. The NDIS batch target file on the CJIS SEN may also be searched by the State Administrator.

When a request is received from someone in another state, other than the state's CODIS Administrator, the person will be asked to contact their state's CODIS Administrator to have the request made. Alternatively, the Alaska State Administrator may contact the other state's administrator to discuss the request.

Routinely, only profiles with six or more loci in common with the STR loci utilized by the laboratory will be searched. However, at the discretion of the State Administrator fewer than six loci may be searched.

The search request and any written response to the request will be retained by the State Administrator in LIMS. CODIS matches generated as a result of such requests will be verified and reported in the manner outlined in Section 3.6, with due consideration given to the specific needs of the requesting agency.

Requests can be made by law enforcement agencies within the State of Alaska for searches of the CODIS Indices of other states. For example, a forensic unknown may contain less than 10 CODIS core loci and is therefore ineligible for uploading and searching at NDIS. In addition, other state databases may contain samples not acceptable at NDIS.

The request, made in writing or verbally, will be brought to the attention of the State Administrator, who will make the official written request for the search. The State Administrator, or designee, may either contact other State Administrators directly, to search the profile, or may seek to have the profile added to the batch target file on the CJIS SEN. Requests to other State Administrators will be made in writing, using the DNA Search Request by Facsimile Official Form (or current version available on the

CJIS SEN). All documentation related to such requests will be retained in the case record in LIMS.

CODIS matches generated as a result of such requests will be verified and reported in the manner outlined in Section 3.6 using information provided in writing by the other state. The search results and other information regarding the match received from the other state(s) will be retained in the case record.

Requests can be made by law enforcement agencies within the State of Alaska for a search of the DNA databases of foreign countries via Interpol. The request, made in writing or verbally, will be documented in the case record and brought to the attention of the State Administrator, who will make the official request.

3.4 Uploading data to NDIS

DNA profiles that meet NDIS criteria as well as criteria specified in this document may be subsequently uploaded to NDIS.

In accordance with NDIS requirements, the following information from all laboratory CODIS users (defined by NDIS as personnel who have log on access to the CODIS server and/or are qualified DNA analysts who are responsible for producing the DNA profiles stored in NDIS) will be provided to the FBI for security clearance. Only data from users authorized by the FBI will be entered into CODIS.

FD-484: Privacy Act Explanation
FD-258: Fingerprint (10 Print) Card, two copies
FD-816: Background Data Information Form
CODIS User Information Form

Only data in SDIS that complies with the Memorandum of Understanding signed between the FBI and the Department of Public Safety, the NDIS Procedures Manual, the NDIS Standards for Acceptance of DNA Data, and the FBI's "Quality Assurance Standards for Forensic DNA Testing Laboratories" and "Quality Assurance Standards for DNA Databasing Laboratories" will be uploaded to NDIS.

The State Administrator, or designee, will be responsible for uploading eligible DNA profiles to NDIS. Alaska does not collect or upload profiles from suspects or juvenile arrestees to NDIS.

STR profiles from forensic samples that can be "attributed to the putative perpetrator" and contain results at 10 or more of the CODIS core STR loci (CSF1PO, D3S1358, D5S818, D7S820, D8S1179, D13S317, D16S539, D18S51, D21S11, FGA, TH01, TPOX, and vWA) are uploaded to NDIS. New Convicted Offender and Arrestee profiles, with data at all 13 of the core STR loci, are uploaded to NDIS. Profiles from unidentified human remains, missing persons and relatives of missing persons must contain the Amelogenin locus to be uploaded to NDIS. D2S1338, D19S433, Penta E and Penta D are accepted, but not searched at NDIS.

The specimen detail report of a sample at SDIS must be reviewed by a second qualified individual before the sample will be uploaded to NDIS. Upon completion of the review, a copy of the specimen detail report is provided to an Administrator. Prior to an NDIS upload, the Administrator will ensure that all specimens meeting the NDIS criteria and for which technical review has been completed, are marked for upload. The Administrator will also ensure that no specimens are marked that do not meet NDIS eligibility requirements or for which technical review has not been completed. Typically, the upload will be an Incremental Upload, except when Full uploads are specifically requested by NDIS or the FBI contractor.

Once an upload has been processed by the NDIS custodian, a reconciliation report will be received via the CODIS software. The State Administrator will print the report and reconcile it with database batch worksheets and with the Specimen Detail Reports provided by the DNA analysts. The alternate administrator will also review the reconciliation reports to confirm the upload of eligible forensic profiles to NDIS. This review is indicated by the alternate's initials on the first page of the report. Reconciliation reports are retained by the State Administrator in LIMS.

All complete DNA profiles uploaded to NDIS are regularly searched at NDIS against the eligible DNA profiles from other states.

Matches obtained as a result of such searches will be sent automatically via the CJIS SEN to SDIS. Potential matches are received via the CODIS software. These matches will be reviewed by the State Administrator, or designee, who will communicate with the other laboratory agencies and the laboratory analysts to ensure timely disposition, verification and reporting of any hits.

The evaluation and verification of NDIS hits will be in accordance with the NDIS procedures (most current version, published by the FBI, US-DOJ), and Sections 3.6.3 and 3.6.4 of this document, with due consideration given to the requirements of the other state(s) involved in the NDIS match.

3.5 Match Dispositions

Matches are assessed and dispositioned by a CODIS Administrator or a qualified DNA analyst. Matches that have not been viewed show the disposition as Candidate Match. Once a match has been viewed, the disposition changes to Pending. Matches should be assigned a disposition (by right-clicking on the match) as soon as possible after it has been assessed and/or confirmed:

The following match dispositions are defined specifically in the Alaska laboratory as follows:

Investigative information - this disposition is assigned when an offender matches to a forensic sample, but the offender is not a putative perpetrator (i.e. consensual sex partner), or when a match does not provide new information.

Duplicate or Duplicate match – these dispositions are used for duplicated matches (i.e. subsequent matches between identical specimen IDs or with offender duplicates)

User defined – the dispositions identified as User Defined #1, #2 and #3 are available for the laboratory to assign when matches arise that are not defined by any of the other available dispositions. These are defined as below. User defined dispositions should not be used for matches occurring at NDIS.

> User defined #1 – this disposition is used when a sample that was searched as a one time keyboard search hits to another sample in the database.
>
> User defined #2 – this disposition is used when a volunteer sample hits to a forensic sample in the database
>
> User defined #3 – this disposition is used when two samples that match with high stringency are not from the same individual or an identical twin (i.e. a bone marrow donor and recipient)

To ensure that all matches have been reviewed and properly dispositioned, the State Administrator will generate a list of matches for a given month, and their dispositions. This list will be provided to the alternate administrator for review. The alternate administrator will confirm that all matches have been viewed and that action has been taken to disposition each match. The alternate administrator will confirm the dispositions of Alaska casework matches dispositioned as No match and all moderate stringency Alaska casework matches. This report will be initialed by the alternate Administrator and retained in LIMS by the State Administrator. This reconciliation is not an audit requirement and need not occur immediately at the end of the month.

The State Administrator will periodically run queries for matches with discrepant dispositions and matches that still require a final disposition. These matches should be reconciled whenever possible.

3.6 Confirming and Reporting a Candidate Match

Some CODIS hits require further verification before the hit can be reported to the agency/investigator. The extent to which a hit requires verification depends on whether the hit is a Warm hit or a Cold hit. A Warm hit is one where the samples were previously suspected to originate from the same source. For example, forensic samples from unsolved burglaries with similar MOs (modus operandi) or a forensic sample from an assault victim matches an offender sample from a named suspect for whom no reference sample was available. A Cold hit is one in which there was no prior indication that the cases or individuals may be related.

When one or both of the matching samples are mixtures, verification may require reviewing the electropherograms from which the profiles were obtained. Assessment of casework matches at less than high stringency must be conducted by two qualified DNA analysts, as defined in the NDIS procedures. If the match results in the identification of the source of a sample that was previously unknown, the source ID for that sample is changed to Yes. If at least one probative source of DNA remains unidentified, the source ID remains No. A comment is added to the specimen record regarding the identification of one source.

Whenever possible, candidate matches should be resolved and reported, if appropriate, within 30 days. In general, the casework analyst that identifies the match or that worked a case involved in the match is responsible for initiating the confirmation process and authoring the hit letter. All CODIS hit letters require an administrative review prior to release. This review is conducted using the CODIS Match/Hit Review Checklist contained in the Forensic Biology Procedures Manual.

CODIS match detail reports for candidate matches determined to be hits will be retained in the relevant case records in LIMS. CODIS dispositions should be updated by the individual receiving relevant communications or issuing the hit letter. All communications, written and verbal, related to candidate matches will be retained in the case activities in LIMS.

Whenever a CODIS hit letter is issued, the final hit disposition and number of investigations aided will be recorded in the appropriate record in LIMS. The analyst will click on the Case Activities button on the Case Info tab, scope the activity using the Context drop down menus (as shown in Figure 1), and select the appropriate disposition in the Activity drop down menu. Investigations aided, if applicable, are recorded on the Testimony drop down menu (as shown in Figure 2). For intrastate forensic hits, a hit is only recorded in one of the case records. In the other record, the

activity is recorded as Investigative Information. The original match date is recorded as the start date for the activity. The end date is the date the hit letter is drafted. If a match disposition is modified after receiving additional information, this may be recorded in the notes field.

Every effort is made to ensure that only qualifying forensic and offender samples are entered into the database. The laboratory presumes that agencies submitting offender samples to the laboratory collect only from individuals who qualify under Alaska Statute. The laboratory verifies that an individual has a qualifying offense prior to releasing personal information associated with a database hit.

If a match occurs involving an offender sample that was not collected for a qualifying offense, the department attorney is contacted and provided with details of the match and the collection of the offender sample. Matches to offender samples collected “in good faith” may be reported at the discretion of the department attorney. If being reported, the match is treated similarly to those for qualifying offenders. If the decision is made not to report the match, the match is dispositioned as investigative information (in CODIS). Either way, the offender record (DNA profile and all personal information) will ultimately be removed from the LIMS system as described in Section 3.2.

If a match occurs involving an offender sample that was legally collected, but for which a qualifying offense no longer exists, the laboratory may release information relating to the match as long as a court order to expunge the sample has not been received. The DNA profile and personal information are retained until a court order to expunge is received by the laboratory.

If a match occurs with a forensic sample whose source is known, but that is determined to be ineligible for CODIS (i.e. consent partner, witness, elimination sample, not likely to be a perpetrator, etc.), the match in CODIS is dispositioned as Investigative Information. Details of the match will not be provided to law enforcement (or another laboratory) and the ineligible forensic sample will be removed from CODIS. Additional information on removing a specimen from CODIS is given in Section 3.2.

Apparent conviction matches (when a forensic profile [source previously identified] matches to an offender/arrestee sample from the same individual) with other states can be verified verbally or by e-mail with the other State Administrator. At a minimum, the name and date of birth of the offender should be verified. This communication is noted in the match disposition notes in CODIS. These matches are dispositioned as such in CODIS and no action is required in LIMS.

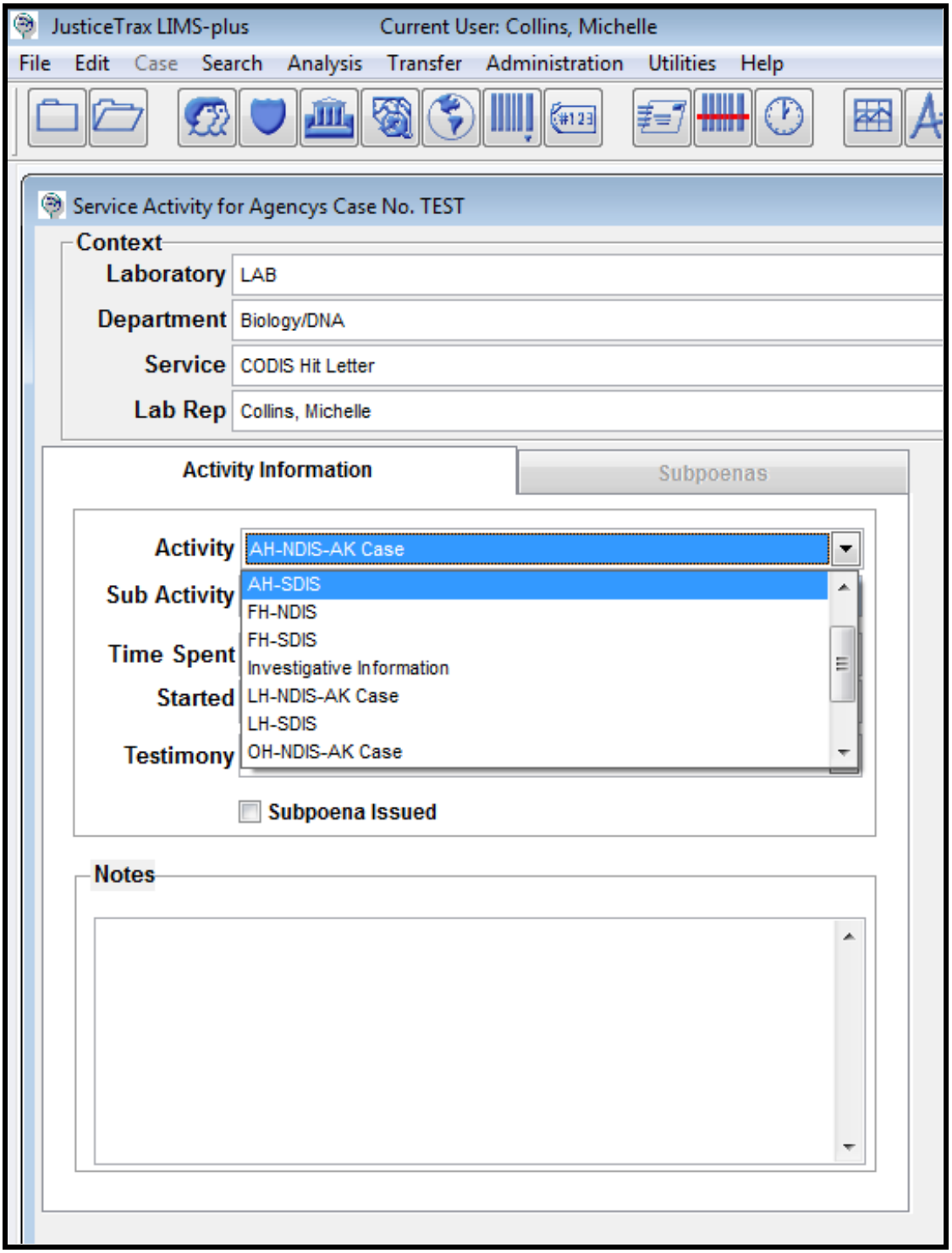


Figure 1. Recording match dispositions in LIMS

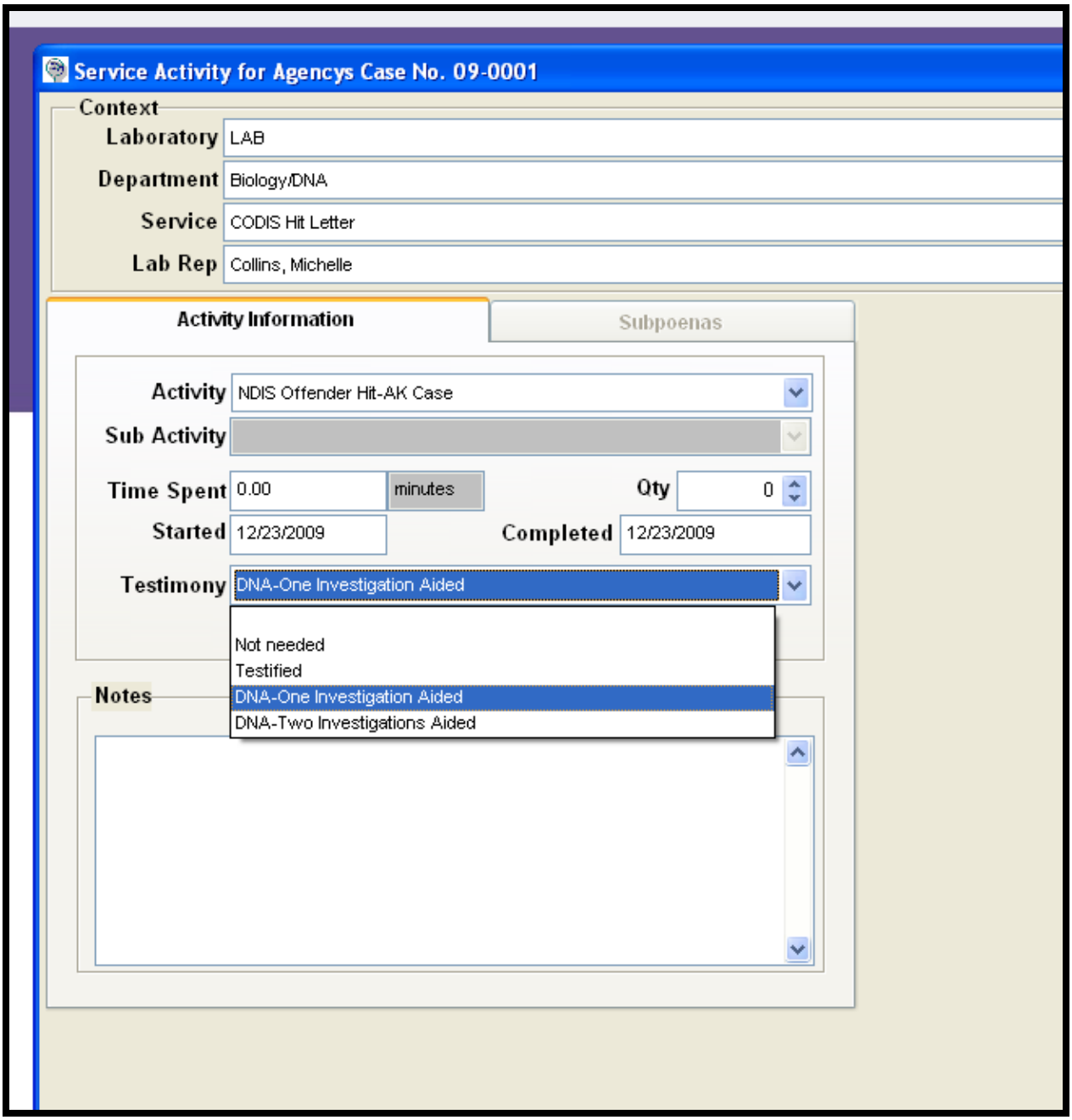


Figure 2. Recording investigations aided in LIMS

3.6.1 Intrastate Forensic hits (reference Figure 3 flowchart)

Possible matches between two forensic profiles are first assessed to determine if the profiles were appropriate for entry into CODIS and can be reasonably thought to originate from the same source.

If the samples are determined to match, are eligible for CODIS, and the source of at least one of the samples is unknown, a CODIS hit letter request is created in LIMS and the cases are related. The request is created in the case record of the unsolved case or, if both cases are unsolved, in the case record of the most recent case. The hit is only recorded in the case activities (in LIMS) of one of the cases (the unsolved case or, if both cases are unsolved, the most recent case). In the other case record, the activity is recorded as Investigative Information. An investigation aided is recorded for each unsolved case (provided it has not previously been counted in a prior hit). The CODIS hit letter(s) contains, at a minimum, the following information: the match level, the agency(ies) and agency case numbers involved in the match, and item numbers and brief descriptions of the items. The hit letter(s) includes a request that the agency representative(s) contacts the laboratory to advise of the status of the case(s) and the probative nature of the match. The match is counted as a forensic hit (and is dispositioned as such in CODIS and LIMS) unless the laboratory is notified that the case has previously been solved or that the source of the sample is not a putative perpetrator.

If the source has been previously identified in both of the forensic cases, a CODIS match letter request(s) is created instead of a CODIS hit letter request(s). The letter(s) contain the same information as described in the previous paragraph except that no additional agency contact is requested. The match is dispositioned as Investigative Information in CODIS and no hit activities are recorded in LIMS.

The hit letter or match letter is distributed to all relevant agencies and case officers.

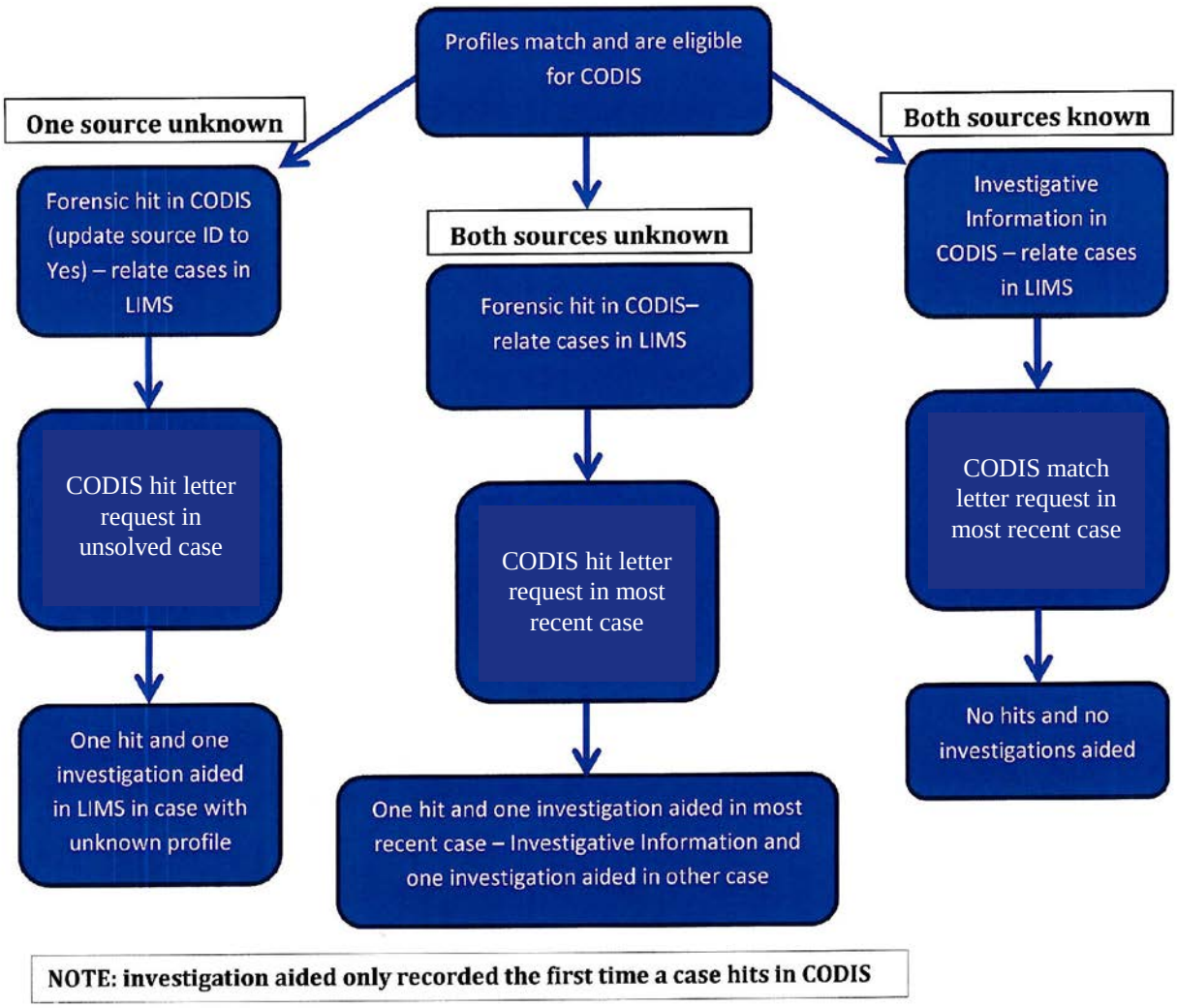


Figure 3. Flowchart for Intrastate Forensic Hit

3.6.2 Intrastate Offender hits (reference Figure 4 flowchart)

Possible offender hits are first assessed to determine if the profiles were appropriate for entry into CODIS. This assessment includes verification of a qualifying offense for the offender, and that there is a reasonable possibility that the samples originated from the same source.

If the samples are determined not to match, no letter is sent to the agency and the match is dispositioned in CODIS as No Match. No action is required in LIMS. If the offender was not collected for a qualifying offense or does not have a currently qualifying offense, proceed as described in Section 3.6.

Hit letters involving offenders who were juveniles at the time of the offense should also be sent to an appropriate contact at the Department of Juvenile Justice (DJJ). Language may be added to the hit letters recommending that law enforcement agencies communicate with DJJ regarding the offense.

3.6.2.1 Cold hits

If the match is determined to be a cold hit (i.e. to an offender who was not a named suspect) and the offender's profile has not been previously verified, a CODIS confirmation request is created in LIMS under the offender record and a CODIS hit letter request is created in LIMS under the forensic case record. The match detail report and individual report from LIMS (with documentation of the qualifying offense) are picked up by the next available analyst, who will obtain the (originally typed) offender sample and perform STR analysis to confirm the profile associated with the match. A CODIS Administrator and/or DNA Technical Manager must sign off on a profile confirmation when less than 50% of the core alleles are confirmed. If the offender's profile has been previously confirmed, either via another offender sample or a casework known, a CODIS confirmation request is not required. If none of the original offender sample remains, the hit may be reported; but the body of the letter will reflect that the offender sample could not be reanalyzed.

Prior to issuing the hit letter for a cold hit, the DNA unit will confirm the biographical information contained in the letter, and also whether the identity of the offender has been verified via the thumbprints submitted with the Database Collection Kit. Verification of the biographical information is documented on the review checklist for hit letters. Latent print verification may be done by a qualified latent print analyst in the laboratory or by the department's Records & Identification unit. Print verification is indicated by the date and initials of the verifying examiner next to the prints or the APSIN number on the print card.

Once the profile and the identity of the offender have been confirmed (to the extent possible), a CODIS hit letter is drafted. The CODIS hit letter typically contains, at a

minimum, the following information: the match level, the agency and agency case number, the agency item number and a brief description of the item, the name of the offender and at least one additional piece of personal information (i.e., date of birth, SSN, APSIN or other state ID number). The letter shall also indicate when the match occurs at less than high stringency (involves a forensic mixture or forensic partial profile) and shall request that the agency representative(s) obtains a new sample from the offender and submits it to the laboratory for analysis and use in future legal proceedings. Additionally, the laboratory will request that the agency provide feedback regarding the current status of the case, and that laboratory be notified if the named offender is determined not to be the “putative perpetrator”.

When a database sample was submitted without thumbprints, or the offender’s print(s) could not be verified, the body of the letter will indicate that the identity of the offender could not be verified by latent prints. When the submitted prints are matched to an offender other than the person named on the card, no hit letter will be issued until/unless the source of the discrepancy is resolved.

If the laboratory is later informed that a match is not probative (case was previously solved or the source of the DNA is not a putative perpetrator), the case activity (in LIMS) and disposition in CODIS are changed to Investigative Information. The Investigation Aided is removed from the activity in LIMS and appropriate notes are recorded.

If the DNA profile obtained during confirmation is not consistent with the profile already in the CODIS database, a CODIS Administrator shall be notified immediately. The administrator will notify the DNA Technical Manager and available options will be discussed to discover the source of the discrepancy. The hit letter will not be issued until/unless the discrepancy can be resolved and the hit confirmed. Similarly, the DNA Technical Manager will be consulted if a known forensic sample matches an offender whose identity is not consistent with the known source of the forensic sample.

If the identity discrepancy cannot be resolved, the agency will be notified in writing (may be an e-mail) and the hit letter request cancelled.

3.6.2.2 Warm hits

If the match is probative and to a named person for whom a reference sample was unavailable (i.e. a warm hit), no profile verification is required. An analyst or administrator will create a CODIS hit letter request in LIMS. Contents of the CODIS hit letter are as described above.

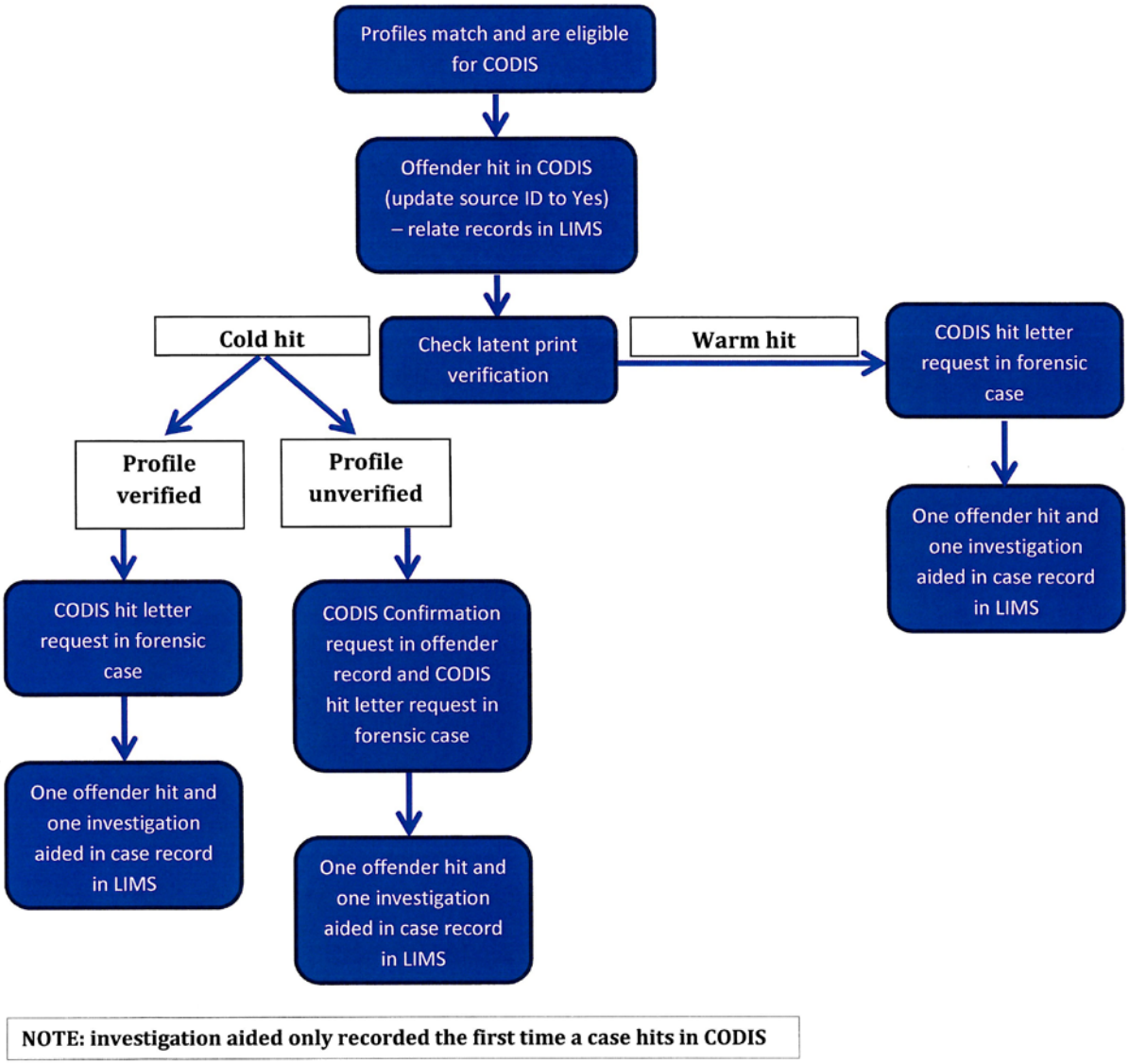


Figure 4. Flowchart for Intrastate Offender Hit

3.6.3 Interstate Forensic hits (reference Figure 5 flowchart)

As with intrastate forensic matches, possible interstate forensic matches are first assessed to determine if the profiles were appropriate for entry into CODIS and can be reasonably thought to have originated from the same source. Typically, the burden is on the laboratory with the unknown forensic profile to request confirmation of the match.

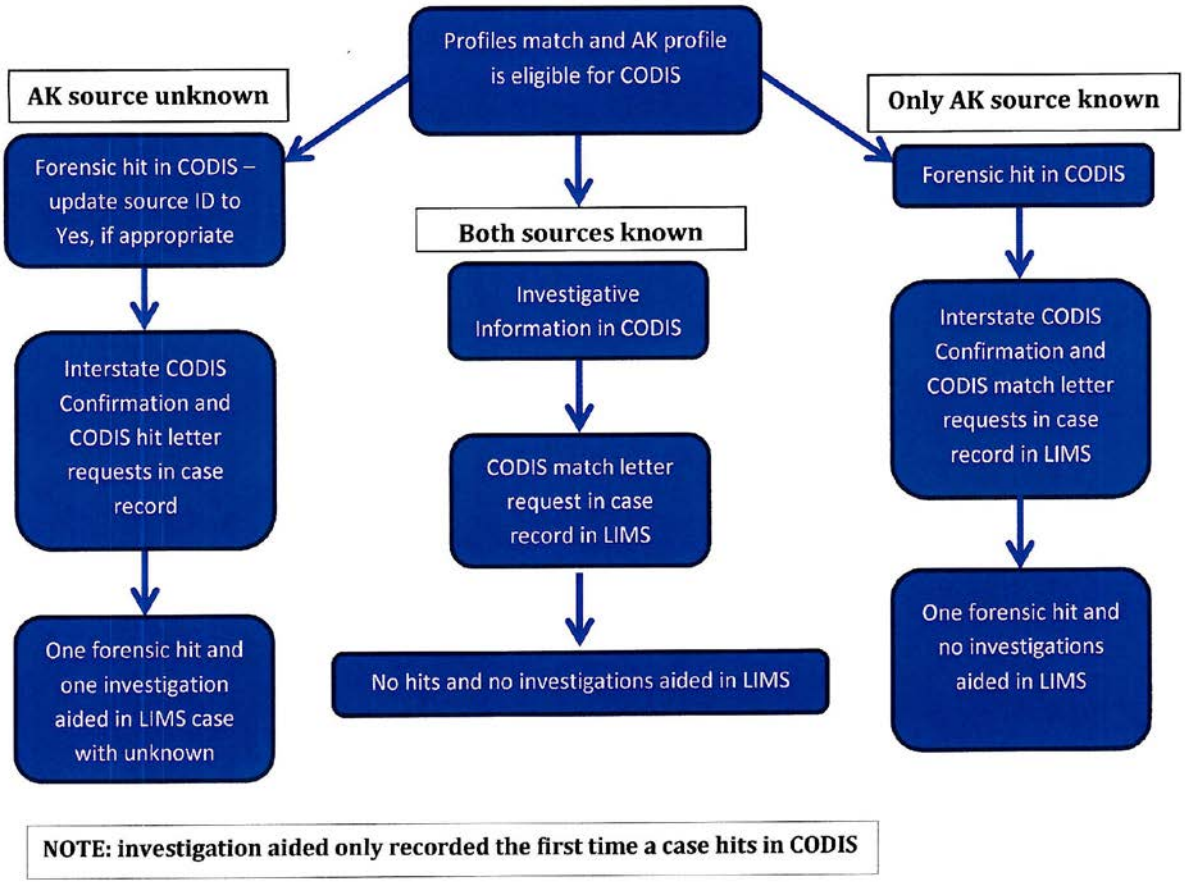


Figure 5. Flowchart for Interstate Forensic Hit

3.6.3.1 Origin of Alaska sample is known

If the samples are determined to be a possible match and the source of the Alaska sample is known, the CODIS laboratory with the other forensic sample may be contacted (by e-mail or telephone) to determine the status of the forensic case in the other state. Alternatively, Alaska may receive a confirmation request from the other state. If the source of the sample from the other state is unknown, an Interstate CODIS Confirmation request is created in LIMS. The AK Administrator will report the relevant Alaska case and agency contact information to the other State Administrator. The letter typically contains, at a minimum, the following information: the match level, match ID and specimen IDs for both specimens, the requesting laboratory name, Alaska law enforcement agency case number, item number, brief item description (if available), name and birthdate of the putative perpetrator, and contact information for the Alaskan law enforcement agency. The match is dispositioned (in CODIS) as a forensic hit.

A CODIS match letter request is also created in LIMS. The CODIS match letter is sent to the Alaskan law enforcement agency and contains the match level, agency names, agency case numbers, item numbers, brief item description(s) (if available), and contact information for the law enforcement agency in the other state.

If it is determined that both cases involved in a forensic match were solved, prior to the CODIS match occurring, the match will be dispositioned (in CODIS) as Investigative Information. A CODIS match letter, as described in the previous paragraph, is still issued to the Alaskan law enforcement agency.

If it is determined that the Alaska sample is not eligible for CODIS entry or should have been removed previously, the department's legal representative (or another designated individual) will be consulted regarding the appropriate course of action. These situations will be addressed on a case by case basis. If it is determined that the match cannot be reported, the administrator for the other laboratory is notified, in writing, that the sample was not eligible for CODIS entry. The match will be dispositioned (in CODIS) as Investigative Information and appropriate comments included in LIMS. The ineligible sample will be removed from CODIS as per Section 3.2.

3.6.3.2 Origin of Alaska sample is unknown

If the samples are determined to match and the source of the Alaska sample is unknown, the Alaska Administrator will create Interstate CODIS Confirmation and CODIS hit letter requests in LIMS. The match disposition (in CODIS) is changed to Forensic Hit. The Interstate CODIS Confirmation letter is issued to the Administrator for the other laboratory, requesting that confirmation of the match occur, and contains, at a minimum, the following information: match level, laboratory and agency contact information, match ID#, casework specimen ID #s for both specimens. When the Alaska Administrator receives confirmation from the other state, a hit letter will be

issued to the Alaska law enforcement agency and will contain, at a minimum, the following information: match level, the agency names, agency case numbers, item numbers and brief item descriptions (if available), and contact information for the agency outside of Alaska. The letter may also contain information regarding the putative perpetrator, if provided by the other laboratory.

3.6.4 Interstate Offender hits

Possible offender hits are first assessed to determine if the profiles were appropriate for entry into CODIS (includes verification of a currently qualifying offense for the offender) and can be reasonably thought to originate from the same source. It is the responsibility of the laboratory with the forensic sample to determine if the candidate match requires confirmation and establish contact with the laboratory in the other state.

3.6.4.1 Alaskan offender sample (reference Figure 6 flowchart)

If the candidate match involves a qualifying Alaskan offender, the laboratory will proceed with confirmation of the match upon receiving a request from the administrator of the other laboratory involved in the match. If requested, match confirmation will proceed as described in Section 3.6.2.

Once the profile and identity of the offender are confirmed (to the extent possible), the letter to the other state laboratory is drafted. The letter typically contains, at a minimum, the following information: the match level, laboratory name, match ID and specimen IDs for both specimens, the name of the offender and at least one additional piece of personal information (i.e., date of birth, SSN, APSIN or other state ID number), and the offender's last known whereabouts (if available).

A match to an offender without a currently qualifying offense, is handled as previously described in Section 3.6. The Administrator of the other state is notified that the name of the offender cannot be released owing to the inability to verify a qualifying offense. This communication is noted in the match disposition notes in CODIS.

If the DNA profile obtained during verification is not consistent with the profile already in the CODIS database, proceed as described in Section 3.6.2.1. If an agency requests confirmation and the identity discrepancy cannot be resolved, the agency will be notified in writing (may be an e-mail) and the hit letter request cancelled.

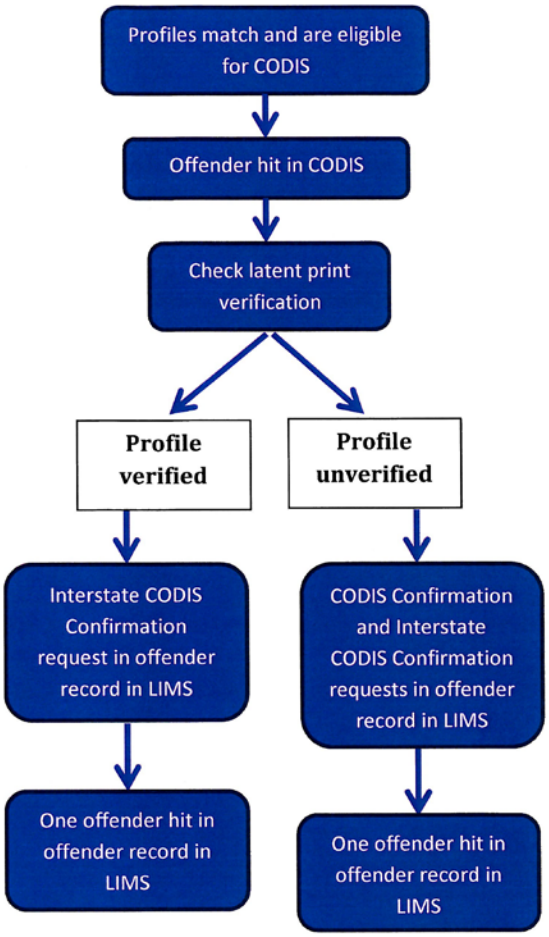


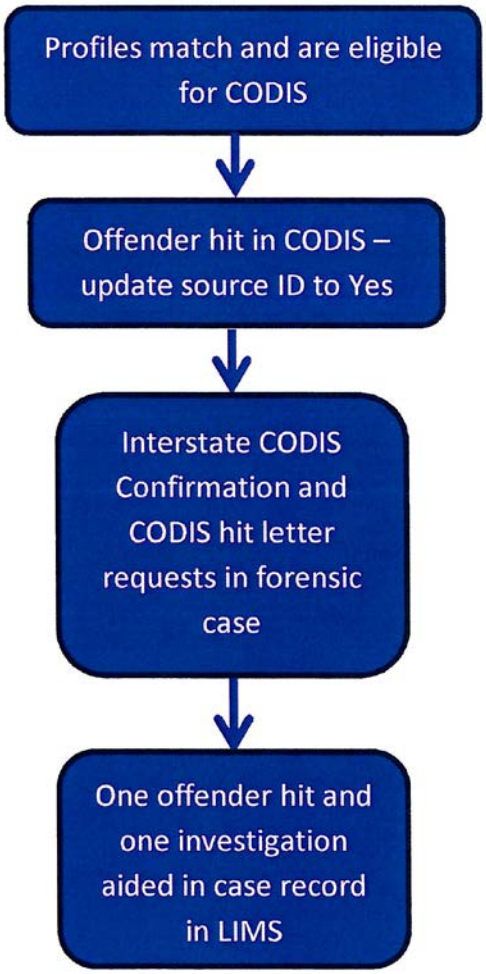
Figure 6. Flowchart for Interstate Offender Hit – Alaska offender

3.6.4.2 Alaskan forensic sample (reference Figure 7 flowchart)

If the candidate match involves a forensic sample from Alaska, a CODIS Administrator or designee must first verify that the samples match.

If the samples are determined to match and the Alaska sample is eligible to be in CODIS, an Interstate CODIS Confirmation request and a CODIS hit letter request are created in LIMS and the match disposition (in CODIS) is changed to Offender Hit. The Interstate CODIS Confirmation request is issued to the Administrator for the other laboratory, requesting that confirmation of the match occur, and contains, at a minimum, the following information: match level, laboratory name, match ID#, specimen ID #s for both specimens and the type of case (if known).

When the Alaska Administrator receives confirmation from the other state, a hit letter will be issued to the Alaska law enforcement agency and will contain, at a minimum, the following information: match level, the agency name, agency case number, item number and brief item description (if available), offender name, state, last known whereabouts, and other relevant information provided by the confirming laboratory. The letter shall also indicate when the match occurs at less than high stringency (involves a forensic mixture or forensic partial profile) and shall request that the agency representative(s) obtains a new sample from the offender and submits it to the laboratory for analysis and use in future legal proceedings, and that the agency contact the laboratory should the match be determined to be to an individual other than the “putative perpetrator”. The hit and investigation aided are recorded in the case activities in LIMS.



NOTE: investigation aided only recorded the first time a case hits in CODIS

Figure 7. Flowchart for Interstate Offender Hit – Alaska forensic sample

3.7 Partial Matches and Familial Searching

Occasionally, a candidate match may occur between two samples where it is determined that the samples are not from the same source. However, based on the degree of similarity between the profiles, it is possible that the samples are from close biological relatives. Personally identifiable information will only be released when the two samples are determined to likely be from the same source. In instances where it is determined that the offender profile and the forensic profile are likely not from the same source, no information about the offender will be released.

Likewise, the laboratory will not request confirmation, or the release of personally identifiable information, for a partial match with another state.

When an out of state laboratory requests personally identifiable information on an Alaskan offender involved in an NDIS partial match, the department attorney will be consulted to determine whether the information can be released.

Familial searching describes an attempt to identify the source of a forensic sample by searching the CODIS database for close biological relatives of the source. Familial searching is not currently performed by the laboratory.

3.8 Hit counting

One of the responsibilities of a CODIS Administrator is monthly reporting of the state's hits to NDIS. Hits for a calendar month should be reported on the CJIS SEN by the 10th of the following month. After the 10th, hit counts can be e-mailed to the NDIS unit.

Hit counting is a complex process and the rules for counting hits and investigations aided are detailed in the NDIS Procedures.

3.9 CODIS Security

The Department of Public Safety's (DPS) Information Technology (IT) unit will have at least one individual who has been cleared by the FBI as a CODIS IT User. In coordination with the State Administrator, this person may perform hardware and software updates/upgrades to the CODIS computers and backups of the data on the server. These duties may also be performed by the State Administrator. The CODIS IT User will also assist with troubleshooting computer issues that may arise in the daily operations of CODIS.

The CODIS server is housed in a server room in the Forensic Biology wing of the building. This room is accessible only to top management and authorized IT personnel. Login access to the server is restricted to authorized CODIS/IT users. The CODIS router is located in the IT section of DPS. CODIS workstations are maintained in the Forensic Biology office at the laboratory. The server and workstations are not

maintained on the network with other laboratory computers and do not have access to the internet.

3.9.1 CODIS User Security Requirements

CODIS Administrators have elevated user accounts (xusername) and shall use these accounts to login when performing administrator functions.

3.9.2 CODIS Server/Client Requirements

When possible, a CODIS Administrator will apply windows updates and updates to the virus definitions (to the server and each workstation) on a weekly basis. The updates are provided by NDIS via the CJIS SEN.

Encrypted full backups of the database, to an off-site server, are conducted at least once a week. The back-ups are monitored by either the CODIS Administrator or a CODIS IT user and are tested on a quarterly basis.

Expungement Checklist

This checklist must be appropriately filled out and attached to requests for expungement and some administrative removals (as described in section 3.2 of the CODIS Administrative Manual). The initials of the individual performing each task shall be placed in the space provided to the right of each task.

Offender's Name_____

Date Expungement/Removal Request Received _____ Date All Actions Completed_____

				Initials	Date
1.	Offender's record(s) located in LIMS? LIMS Case #(s) _____ Total # of offender samples _____ *If no, do not proceed with remainder of form. Send notification letter to agency/individual requesting expungement, if appropriate.*	☐Yes	☐No	_____	_____
2.	Criminal History Check completed?	☐Yes	☐No	_____	_____
	Additional qualifying offense found?	☐Yes	☐No	_____	_____
	List additional qualifying offenses, if applicable _____ *If no additional qualifying offense(s) found, proceed to Step #3.* *If yes, do not proceed. Send notification letter to agency/individual requesting expungement, if appropriate.*				
3.	Offenders profile(s) located in CODIS database? *If no, proceed to Step #5. If yes, proceed with rest of Step #3.*	☐Yes	☐No	_____	_____
	Profile(s) deleted from SDIS?	☐Yes	☐No	_____	_____
	SDIS Delete Specimen Report(s) received via the CODIS software			_____	_____
4.	Was the offender profile(s) uploaded to NDIS? *If no, proceed to Step #5. If yes, proceed with rest of Step #4.*	☐Yes	☐No	_____	_____
	New upload to NDIS performed *NDIS upload report received via the CODIS software*	☐Yes	☐No	_____	_____
5.	Offender's record(s) secured in LIMS database	☐Yes	☐No	_____	_____
	Security of record confirmed	☐Yes	☐No	_____	_____
6.	Destruction of Sample(s) and Card THIS REQUIRES A WITNESS! *Blood / Buccal sample(s) destroyed*			_____	_____
		Witnessed by		_____	_____
	Information card shredded			_____	_____
		Witnessed by		_____	_____
7.	Resetting flag in APSIN *Notification to R&I to reset flag in APSIN, if applicable*			_____	_____
	Confirmation of flag reset received from R&I			_____	_____
9.	Notification letter sent to originator of expungement request			_____	_____

All supporting documentation is retained by CODIS Administrator

CODIS Match/Hit Review Checklist

	Analyst:	Reviewer:
Date Submitted for Review::_____ Administrative Review Started::_____ Lab Number::_____		

Match/Hit Letter Checklist (all communications to AK law enforcement)

Cases related in LIMS		
Match disposition updated in CODIS, source ID updated		
Match confirmed: including profile verification if necessary		
Case Activities: correct hit disposition, investigation aided indicated (if appropriate), match date as start date		
Agency contact requested regarding status of case and probative nature of match		
Identity of offender attempted by latent prints; indicated in letter		
Qualifying offense of offender verified if AK offender; comment added to case synopsis		
Match level indicated in body of letter (SDIS or NDIS)		
Correct agency/lab, agency/lab rep., agency/lab case#, item#, item description, and contact information in letter		
Correct name and DOB of offender (and state, if applicable)		
New sample requested, if applicable		
Confirm content of last known whereabouts, if applicable.		

Interstate CODIS Confirmation Checklist (all communications to out-of-state laboratory)

Match disposition updated in CODIS, source ID updated		
Match confirmed: including profile verification if necessary		
Case Activities: correct hit disposition, investigation aided indicated (if appropriate), match date as start date		
Agency contact requested regarding status of case and probative nature of match		
Identity of offender attempted by latent prints (if AK offender); indicated in letter		
Qualifying offense of offender verified if AK offender; comment added to case synopsis		
Match level indicated in body of letter (SDIS or NDIS)		
Correct agency/lab, agency/lab rep., agency/lab case#, match ID, item#, item description, and contact information in letter		
Correct name and DOB of offender (and other pertinent identifying information, if provided)		
New sample requested, if applicable		
Confirm content of last known whereabouts, if applicable.		

Appendix A Sample CODIS Letters

Templates serve as guidelines and may be modified.

Expungement Completion Letter

State of Alaska
Department of Public Safety

Sean Parnell, Governor
Joseph A. Masters, Commissioner

June 22, 2010

Office of Public Advocacy
Anchorage Criminal Defense Section
900 W. 5th Avenue, Suite 525
Anchorage, Alaska 99501

Attn: [redacted] Assistant Public Advocate

RE: SOA v. [redacted] CR, Expungement of DNA sample and record

Dear Mr. [redacted]

As requested in your letter dated [redacted] 2010, and in compliance with the court order issued by Superior Court Judge [redacted] the DNA sample and records pertaining to the DNA sample collected from Mr. [redacted] following his arrest in the above reference case, have been destroyed. Please do not hesitate to contact me with any questions relating to this matter.

Sincerely,

Michelle L. Collins
AK CODIS State Administrator

Alaska Scientific Crime Detection Laboratory
5500 E. Tudor Road - Anchorage, AK 99507 - Voice (907) 269-5740 - Fax (907) 338-6614
Accredited by ASCLD-LAB Certificate #157

NDIS Forensic Hit – Alaska source known – letter to lab

During a search of the National DNA Index System (NDIS), a confirmed match occurred between the following specimen numbers. The source of our casework specimen has been identified and this report is to inform you of a possible investigative lead related to your casework specimen. It is recommended that your agency obtain a biological sample from the individual and that this sample be re-analyzed in your laboratory.

Match ID # DC
specimen ID # (AK0020200, item description)
to specimen ID # (ORI number for other lab)

Has been determined to be a MATCH

Individual Information:
Name:
DOB:
Alaska State ID:
FBI#:
Alleged offense:
Offender whereabouts:

Agency contact information:
Officer
Agency
Street Address
City, State zip
( ) - phone
( ) - fax

NDIS Forensic Hit – both sources unknown – letter to agency

During a search of the National DNA Index System (NDIS), a confirmed match occurred between DNA profiles obtained from AK agency case #, item # (item description), and other agency case #, item # (item description).

Information regarding this match has been provided to the XXXXX state laboratory, to release to the law enforcement agency.

Other agency contact information:
Officer
Agency
Street Address
City, State zip
( ) - phone
( ) - fax

If you have any questions, please contact Michelle Collins, the CODIS State Administrator, at (907)269-5620 or michelle.collins@alaska.gov.

NDIS Offender/Arrestee Hit – Alaska unsolved case – letter to agency

During a search of the National DNA Index System (NDIS), a confirmed match occurred between a DNA profile obtained from Agency Case # , item (item description), and a sample submitted from State offender offender name, DOB / /19 .

This letter is to inform you of a possible investigative lead. It is recommended that your agency obtain and submit to the Alaska Scientific Crime Detection Laboratory an additional biological specimen from this individual that could be used in future legal proceedings.

Please provide the laboratory with information regarding the current status of this case and notify the laboratory if the offender named above is determined not to be a perpetrator in this case.

If you have any questions, please contact Michelle Collins, the CODIS State Administrator, at (907)269-5620 or michelle.collins@alaska.gov.

NDIS Offender/Arrestee Hit – Alaska unsolved case – confirmation request

During a search of the National DNA Index System (NDIS), a match occurred between the specimen numbers listed below. Please begin the match confirmation process. Once the process is completed, please respond with the match disposition, the offender's name and at least one additional piece of identifying information, and last known whereabouts, if available.

Match ID #
casework specimen ID # (AK0020200, type of case)
to offender specimen ID # (ORI of other laboratory)

NDIS Offender/Arrestee Hit – Alaska offender – confirmation to lab

During a search of the National DNA Index System (NDIS), a confirmed match occurred between the following specimen numbers. The purpose of this report is to inform you of a possible investigative lead related to the casework specimen number. The offender specimen has been re-analyzed and the identity has been verified by latent prints. It is recommended that your agency obtain an additional biological sample from the individual and that this sample be analyzed in your laboratory.

Match ID # DC
Offender specimen ID # (AK0020200)
to casework specimen ID # (ORI of other laboratory)

Has been determined to be a MATCH

OFFENDER INFORMATION
Name:
DOB:
Alaska State ID:
FBI#:
Qualifying offense:
Offender whereabouts:

Option: The offender specimen could not be reanalyzed (as the sample was consumed during the initial analysis), but the identity has been verified by latent prints.

SDIS Forensic Hit – both cases unsolved

During a search of the State of Alaska's DNA Index System (SDIS), a confirmed match occurred between a DNA profile obtained from Agency Case # , item (item description) and a DNA profile obtained from Agency Case # , item (item description).

This letter is to inform you of a possible investigative lead. Please contact the Alaska Scientific Crime Detection Laboratory to advise of the status of the cases and the probative nature of the match.

If you have any questions, please contact Michelle Collins, the CODIS State Administrator, at (907)269-5620 or michelle.collins@alaska.gov.

SDIS Offender Hit

During a search of the State of Alaska's DNA Index System (SDIS), a confirmed match occurred between a DNA profile obtained from Agency Case # , item (item description), and a sample submitted from offender offender name, DOB / /19 . The offender specimen has been re-analyzed and the identity has been verified by latent prints.

This letter is to inform you of a possible investigative lead. It is recommended that your agency obtain and submit to the Alaska Scientific Crime Detection Laboratory an additional biological specimen from this subject that could be used in future legal proceedings.

Please provide the laboratory with information regarding the current status of this case and notify the laboratory if the offender named above is determined not to be a perpetrator in this case.

If you have any questions, please contact Michelle Collins, the CODIS State Administrator, at (907)269-5620 or michelle.collins@alaska.gov.

Option: The offender specimen could not be reanalyzed (as the sample was consumed during the initial analysis), but the identity has been verified by latent prints.

Appendix B Revision History

2016 R0 Page	2015 R0 page	Location	Revision made
n/a	n/a	Entire document	**Corrected** grammatical and spelling errors as required. **Updated** page and section numbers as appropriate. **Replaced** CJIS WAN (Wide Area Network) with CJIS SEN (Shared Area Network).
2	2	1.1	**Revised** the 4th paragraph to allow either the administrator or legal assistant to reply.
9	n/a	3.1	**Added** the last paragraph regarding inquiries about offenders in CODIS.
13	13	3.1.3.1	**Revised** 3rd paragraph to reflect new NDIS eligibility requirements.
14	14	3.1.3.1.1	**Removed** details regarding NDIS eligibility from the Match Estimator section. Removed requirement for entry of samples into a batch target file.
14	n/a	3.1.3.1.2	**Added** section providing instructions for determining NDIS eligibility
15	15	3.1.3.2	**Revised** to reflect new NDIS eligibility requirements.
23	23	3.4	**Removed** the last two sentences of the 4th paragraph in this section, regarding upload schedules.
24	24	3.4	**Revised** the paragraph beginning “All complete” to indicate that profiles are regularly searched at NDIS rather than on a weekly basis.
25	25	3.5	**Revised** Duplicate match disposition to allow for it to be used interchangeably with the Duplicate disposition.
28	28	Figure 1	**Updated** to reflect current Activity options in LIMS.
30	30	3.6.1	**Revised** to only require a single hit/match letter to be written. Included that letter is sent to all parties.
31	31	Figure 3	**Updated** to reflect changes to section 3.6.1.
32	32	3.6.2.1	**Added** “(originally typed)” to the sentence beginning “The match detail report” from the 1st paragraph of the section. Added sentence to end of first paragraph about reporting hit when the offender profile could not be reanalyzed.
41	41	3.9	**Removed** “and IT Users” from section heading
42	42	3.9	**Added** subsections and relocated virus updates and backup information to the appropriate subsections.
45-49	45	Appendices	**Inserted** Sample CODIS letters as Appendix A and renumbered Revision History as Appendix B.