

# NC SBI QUALITY ASSURANCE PROGRAM

## LABORATORY MANUAL

for the SBI Crime Laboratory



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**Quality Assurance Program  
North Carolina State Bureau of Investigation  
Crime Laboratory**

Provisions for Modification and Updating of this Manual

Any updates, modifications, additions, or deletions to this Manual prepared after the issue date on the cover sheet will have the following information located at the bottom of each page:

Issue Date: \_\_\_\_\_ Supersedes: \_\_\_\_\_

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## **1.0 Organization**

### **1.1 Organization**

1.1.1 The Attorney General of the state of North Carolina is an elected official who will appoint a Director of the SBI and Assistant Directors who will serve at his/her will. The SBI Director will report directly to the Office of the Attorney General within the North Carolina Department of Justice and supervise the Assistant Directors of the State Bureau of Investigation.

1.1.2 The Director will be delegated responsibilities as empowered by the Attorney General to carry out law enforcement responsibilities with the assistance of the Assistant Directors who will also act in his/her place.

### **1.2 Structure**

1.2.1 The Director of the Crime Laboratory will serve as an Assistant Director for the State Bureau of Investigation with delegated responsibilities from the Director of the State Bureau of Investigation and is empowered to carry out the daily functions and operations of the Crime Laboratory. The duties of the Director of the Crime Laboratory will include all day-to-day functions and operations of the Crime Laboratory and other duties as assigned by the Attorney General and/or the Director of the SBI.

1.2.2 The Deputy Assistant Director of the Crime Laboratory will report directly to the Director of the Crime Laboratory. The duties of the Deputy Assistant Director will include quality assurance and control, continued compliance with accreditation by the American Society of Crime Laboratory Directors - Laboratory Accreditation Board (ASCLD-LAB), acquisition and implementation of grants, oversight of all budgets appropriated for the purposes of carrying out the programs of the Crime Laboratory Division, assisting the Crime Laboratory Director with the day-to-day management of the Crime Laboratory Division, serving as the Director in his/her absence, and completing special projects identified and assigned by the Director of Crime Laboratory Services or the Director of the State Bureau of Investigation.

1.2.3 The Quality Control Manager of the Crime Laboratory of the Crime Laboratory will report directly to the Deputy Assistant Director. The duties of the Quality Control Manager will include ensuring that the Crime Laboratory is compliant with Quality Assurance policy and procedures,

monitoring the quality system in the Laboratory to be in compliance with the requirements and criteria of ASCLD/LAB, managing the proficiency testing program and the court testimony monitoring program for the Crime Laboratory, being responsible for ASCLD/LAB internal audits for the Laboratory, establishing effective communication with the Laboratory related to Quality Assurance issues, and completing other projects assigned by the Deputy Assistant Director or Assistant Director.

- 1.2.4 Each Section/Unit of the Crime Laboratory will have a Special Agent in-Charge or Supervisor that will be empowered to carry out the duties and responsibilities of their respective Sections/Units. In the absence of the Special Agent in-Charge or Supervisor, a senior agent, analyst or designated employee will be assigned in-charge responsibilities. These designated employees will have the same authority as the Special Agents in-Charge/Supervisors during these absences.

See **Appendix A** for organizational charts of the Department of Justice, State Bureau of Investigation and the Crime Laboratory Division.

## **2.0 Objectives and Management**

### **2.1 Scope:**

The QA/QC program described in this Manual is intended to support the forensic analysis of the Crime Laboratory, to ensure that each analyst is operating within established performance criteria, and to ensure that the quality and integrity of the analysis is maintained and is scientifically sound.

### **2.2 Objectives:**

The Objectives of the Crime Laboratory are:

2.2.1 To provide the Criminal Justice System of North Carolina with a full service Forensic Laboratory having state-of-the-art capabilities in the analysis of Latent Evidence, Forensic Biology, Trace Evidence, Controlled Substances and Toxicology, Firearms & Toolmarks, Questioned Documents and Digital Evidence.

2.2.2 To fulfill our obligation to the Criminal Justice System of the State as required by statute and be prepared to give priority to major crimes and, when justified, be prepared to give immediate assistance to facilitate and aid ongoing investigations.

See **Appendix B** for copies of applicable North Carolina Statutes.

2.2.3 To maintain a sufficient number of highly skilled forensic experts to furnish the various courts of the state with expert testimony on analysis performed as required by the courts.

2.2.4 To seek and employ individuals of the highest possible ethical and educational standards and to provide them with sufficient training and state-of-the-art equipment in order to enable them to perform their analysis with the highest possible degree of competence and integrity.

2.2.5 To strive to maintain an open communication with the law enforcement community - sufficient to educate them in: the capabilities of the crime laboratory; the proper procedures for collecting, preserving, and submitting evidence to the laboratory; the proper interpretation of laboratory reports; and to provide on the scene assistance in major crimes.

2.2.6 To provide a work environment which is as free of hazards to laboratory personnel as is possible within existing physical facilities.

2.2.7 To ensure that the work product of the laboratory is of the highest possible reliability through an ongoing proficiency testing program, regular product review, and court testimony monitoring.

## 2.3 Goals:

It is the goal of this laboratory to:

2.3.1 Provide the North Carolina Criminal Justice System with full service forensic services having state-of-the-art capabilities in forensic analysis, technical support for state and local law enforcement agencies and crime scene assistance associated with an official criminal investigation.

2.3.2 Ensure the quality, integrity and scientific accuracy of this analysis through the implementation of a detailed Quality Assurance/Quality Control (QA/QC) program.

## 2.4 Program Objectives

The objectives of this quality assurance program are to:

2.4.1 Ensure uniformity and accountability in records and analytical techniques.

2.4.2 Measure quality performance with administrative and technical case reviews, and to be able to act on any discrepancies encountered.

2.4.3 Ensure the accuracy of the analysis conducted.

2.4.4 Document corrective actions taken.

2.4.5 Terminate non-conforming analyses and procedures.

2.4.6 Monitor personnel and equipment performance.

2.4.7 Ensure the use of documented and valid procedures and equipment.

- 2.4.8 Provide feedback to management on performance standards.
- 2.4.9 Ensure that forensic analysis results are technically sound and/or legally defensible.
- 2.4.10 Provide guidelines to employees.
- 2.4.11 Ensure that the personnel performing this analysis have the appropriate level of training and education.
- 2.4.12 Ensure the analysts are competent in performing the analysis in interpreting results through a series of proficiency tests.
- 2.4.13 Provide a safe workplace.
- 2.4.14 Provide for competent external audits to see that the operating policies and procedures are being followed and that they are adequate.

## 2.5 Management Roles and Responsibilities

### 2.5.1 Management Responsibilities

The Director of the Crime Laboratory, Deputy Assistant Director, Special Agents in-Charge and Supervisors will support all Quality Assurance Programs established within the Crime Laboratory and/or immediately provide proper documentation to the Director of the Crime Laboratory as soon as feasible to support a change or update to existing policy.

### 2.5.2 Laboratory Personnel

All laboratory personnel (analysts, technical support, support services) will follow all Quality Assurance Programs.

## 2.6 Authority and Accountability

The Deputy Assistant Director, Special Agents in-Charge, and Supervisors of the Crime Laboratory with delegated responsibilities are empowered by the Director of the Crime Laboratory to perform assigned duties as needed and to act in his/her place.



Departures from the documented policies and procedures will be done in accordance with the State Bureau of Investigation's Crime Laboratory Directive #03-02.

This means, for example, that each Special Agent in-Charge has the authority to modify any procedure which fails to meet specifications or adequately address Section or Unit needs. The Crime Laboratory Safety Officer is empowered to take appropriate actions in the event of a potential safety hazard or other contamination problems within the laboratory.

Specific delegated responsibilities include:

- 2.6.1 The Deputy Assistant Director, Quality Control Manager and Special Agents in Charge/Supervisors are responsible for the Quality Assurance program pertaining to audits and all other delegated responsibilities.
- 2.6.2 The Deputy Assistant Director, Quality Control Manager, Special Agent in Charge/Supervisor or a designated Senior Analyst within each Section has the responsibility to see that the QC functions are being carried out in the Crime Laboratory on a day-to-day basis.
- 2.6.3 The Special Agent in Charge/Supervisor or a designated Analyst within each Section is responsible for the testing and validation of new reagents and equipment, developing, maintaining and communicating new and existing procedures and maintain and update manufacturer information.
- 2.6.4 The Special Agents in Charge/Supervisors are responsible for maintaining adequate supplies and replenishing these supplies as well as coordinating the requisition of new supplies as needed for the laboratory.
- 2.6.5 The Special Agents in Charge/Supervisors are responsible for approving all new reagents and ensuring the proper usage of chemicals and equipment within the laboratory as well as all safety related matters.
- 2.6.6 The Special Agents in Charge/Supervisors or a designated Senior Analyst is responsible for developing and updating the training program within the laboratory and administering this program appropriately to all new analysts.

- 2.6.7 The Special Agent in Charge/Supervisor of each Section/Unit is responsible for designating a Key Operator(s) for each piece of equipment to include the maintenance of the assigned equipment and ensuring that it is being used properly, and communicating necessary changes and updates to the laboratory personnel.
- 2.6.8 The Director, Deputy Assistant Director, and Quality Control Manager of the Crime Laboratory are responsible for maintaining and updating the Quality Assurance Manual which will be available on the SBI internal network to all Section personnel and available for inspection purposes upon request.
- 2.6.9 The Special Agent in Charge/Supervisor of each Section/Unit is responsible for ensuring that all appropriate Manuals are reviewed annually by the Crime Laboratory Director and the Quality Control Manager of the Crime Laboratory.

### **3.0 Job Descriptions, Continuing Education and Training Records**

- 3.1 Job descriptions will be maintained and updated as required for all Crime Laboratory employees. New, reassigned and recently transferred employees will have a new job description implemented as soon as applicable.

Refer to each Section/Unit for a copy of individual Job Descriptions.

- 3.2 Statement of Qualifications for all employees will remain on file within each Section to include applicable work experience, educational information, completed training activities and any other applicable work experiences. These documents will be maintained, updated, and reviewed on an annual basis by the Special Agent in Charge or designee.

Refer to each Section/Unit for a copy of individual Statement of Qualifications.

- 3.3 Training Records for all employees will be maintained within each Section in a secure location. These records will be updated as necessary to reflect the most current training activities each employee has completed.

Refer to each Section/Unit for a copy of individual Training Records.

- 3.4 Job description, Statement of Qualifications, and Training Records will be maintained for all support personnel when applicable.

Refer to each Section/Unit for a copy of individual Technical Support Personnel Records.

- 3.5 Records of continuing education required in the performance of the job will be maintained in each applicable Section training files and/or personnel files.

Refer to each Section/Unit for a copy of individual records when applicable.

See **Appendix C** for an example of these forms.

#### **4.0 Case File Records**

- 4.1 Under the older LIMS, the Evidence Control and Administrative Services Unit will retain the official records for the Crime Laboratory. These records will include copies of official reports, analysts' notes, technical documentation, and any other related administrative documentation related to the particular case or related cases. The Evidence Control and Administrative Services Unit will be responsible for dissemination of all case records maintained by the Crime Laboratory unless approved by the Director of the Crime Laboratory or his designee.
- 4.2 Effective January 2008, case file records will be maintained on the Forensic Laboratory Analysis Investigating and Reporting System (FLAIRS) and this system will reflect the official chain-of-custody for the laboratory.
- 4.3 Refer to Procedure 35 of the SBI Policy and Procedure Manual and Administrative Order #08-1.

## **5.0 Equipment and Instruments**

### **5.1.1 Procurement**

All equipment and instruments will be ordered by the Special Agent in Charge or designee under the direction of the Deputy Assistant Director.

### **5.1.2 Equipment Inventory Log**

An inventory log will be maintained on each piece of equipment in the Crime Laboratory by the Special Agent in Charge. An audit of the inventory log is completed each year by the Special Agent in Charge or his/her designee. This log is generated by the Logistics Support Section and should include the following information:

- Equipment Item
- FAS/Sticker Number
- Serial Number
- Model Type/Number

### **5.1.3 Operating Manuals**

Operating Manuals and warranty information provided by the manufacturer will be maintained by each Section of the Crime Laboratory.

### **5.1.4 Training**

Operators of scientific instruments will be knowledgeable in their use. Operator training will occur during in-house programs or as needed and will cover the manufacturer's instructions, theory of application, procedures to be used and any calibration requirements. Newly introduced equipment or procedures will require a training session for all analysts of the Section by the Special Agent in Charge (or designee). These training sessions should be documented in the Section training file by the Special Agent in Charge.

### **5.1.5 Equipment Maintenance Forms and Annual Inspection Reports**

Any time a piece of equipment requiring service or maintenance - outside of routine in-house maintenance - will be documented.

#### 5.1.6 Calibration, Certification and Inspection Logs

Each piece of equipment which needs to be calibrated, certified and/or inspected will be checked on an appropriate schedule deemed appropriate by each Section. These logs will be maintained using appropriate standards and will be documented on a log within each Section.

Some instruments will be inspected and certified routinely by certified external agencies (e.g. Bio-Hood and Fume Hoods)

### 5.2 Materials, Reagents, Chemicals, and Supplies

#### 5.2.1 Sources of Materials, Reagents, Chemicals and Supplies

Each Section will maintain a listing of commercial sources for all materials, reagents, chemicals and supplies used in the Crime Laboratory. This listing will show the catalog number, supplier, and required grade, when appropriate.

#### 5.2.2 Procurement

All orders for materials, reagents, chemicals and supplies will be placed by a designee within each Section and approved by the Special Agent in Charge or designee. Copies of all orders will be maintained and provided to the Deputy Assistant Director of the Crime Laboratory as appropriate.

#### 5.2.3 Receipt of Chemicals, Supplies, Reagents and Materials

All chemicals, reagents, supplies and materials will be received in each Section by an assigned analyst, so that they can be checked off against the orders placed. The chemicals, reagents and some appropriate materials are labeled with the date received, the date opened and the initials of the analyst who opened the container.

All inventories will be stored under the conditions specified by the manufacturer. Any materials which require special handling will be handled appropriately and under conditions specified in the Section's Safety Manuals.

#### 5.2.4 Material Safety Data Sheets

Material Safety Data Sheets will be maintained on all chemicals and reagents used in the Crime Laboratory.

#### 5.2.5 Laboratory Prepared Reagents and Solutions

A log for each solution will be maintained for each solution prepared with the following information recorded: chemicals used and their appropriate lot #, date prepared, expiration date if applicable, and initials of the preparing analyst.

All lab-prepared reagents and solutions will be clearly labeled as to the contents of the container, date of preparation, date of expiration if applicable, and initials of the preparer. All reagents will be stored under appropriate conditions.

Recipes for all approved lab-prepared reagents and solutions will be maintained in the Technical Procedures Manual. The Technical Procedures Manual will give an ingredient list, safety notes (if applicable), preparation instructions and storage instructions.

#### 5.2.6 Preparation of Glassware and Plasticware

All glassware and plasticware will be clean prior to use.

Disposable plasticware will be disposed of after use.

#### 5.2.7 Disposal of Materials, Reagents, Chemicals and Supplies

Disposal of hazardous wastes will be handled as described in the Laboratory's Chemical Hygiene Plan and according to applicable Crime Laboratory Safety Manual.

#### 5.2.8 Calibration of Equipment

Equipment requiring calibration will be calibrated according to Section guidelines and maintained on records within each Section.

Refer to each Section/Unit for copies of Manuals, logs and reports.

### 5.3 Traceability and Quality Control

- 5.3.1 All test equipment used in the Crime Laboratory that have a significant effect on the measurement result and their associated uncertainties of measurement will be traceable to a referenced material.
- 5.3.2 Reference materials, where possible, are to be traceable to SI units of measurement, to standard reference materials (SRMs), or certified reference materials (CRMs).
- 5.3.3 Reference materials and standards that are maintained and used in casework for identification, comparison or interpretation purposes shall be documented, uniquely identified and properly controlled. In addition, Crime Laboratory employees will use these reference materials in such a manner as to prevent contamination, deterioration, and to protect the integrity of the standard. It is the responsibility of the Section SAC/Supervisor to determine whether these reference materials and standards will be treated as evidence, reference materials, or examination documentation. Refer to each Section/Unit for appropriate procedure manual.



## **6.0 Evidence Handling**

### **6.1 Evidence Labeling and Documentation**

All laboratory personnel will ensure that all evidence received is in a sealed condition (unless the nature of the evidence makes this impossible). Analysts will ensure that the evidence container is identified with the appropriate laboratory file number, and affix the date received and their initials to the evidence container. The laboratory personnel will then place the evidence in a locked evidence storage area unless the nature of the evidence makes it a biological hazard. In this case the analyst will utilize putrid evidence rooms or other appropriate storage areas to protect themselves and others from contamination.

6.2. Upon opening the evidence container the analyst will compare the contents with the SBI-5 and identify the evidence with the assigned laboratory file number, the item number, date and initials (or the electronic equivalent, such as bar-coding in FLAIRS). If there is a discrepancy, the analyst will report this to the Special Agent in Charge or his designee for verification. The requesting officer will then be notified. The discrepancy will be noted in FLAIRS by the analyst and witnessed by the SAC/designee.

6.3 When the laboratory analysis is complete, the analyst will return the evidence to the evidence container, seal and identify the container. The analyst will return the evidence to their assigned evidence storage area until it is returned to the appropriate evidence technician, officer, or transferred to another laboratory Section for further analysis.

### **6.4 Bulk Evidence Storage Rooms**

The policy for use of bulk evidence storage rooms will comply with each Section's Policies and Procedures.

### **6.5 Labeling Evidence and Evidence Containers**

Each analyst will be responsible for properly marking all evidence containers upon receipt with the assigned laboratory file number, the item number, date and initials (or the electronic equivalent, such as bar-coding in FLAIRS). After completing the case, the analyst will be responsible for labeling the evidence with these same identifying marks or electronic equivalent to ensure proper identification at a later date.

#### 6.6 Putrid Evidence Rooms

Putrid Evidence will be placed in a putrid evidence room for a time not to exceed the time it takes for the evidence to air dry or in an appropriate storage area within the Crime Laboratory. Once the putrid evidence has dried, the evidence will be removed from this area and prioritized in order to limit exposure of possible contamination.

#### 6.7 Refer to SBI Policy and Procedure Manual - Procedure 37 Lab Evidence Handling, and Crime Laboratory Directive #08-03, effective January, 2008.

## **7.0 Manuals**

### **7.1 Crime Laboratory Manuals**

- 7.1.1 The Director, Deputy Assistant Director, and Quality Control Manager of the Crime Laboratory will be responsible for maintaining a Quality Assurance Manual for the laboratory. This Manual will be updated as necessary and provided to each Section as appropriate.
- 7.1.2 The Director and Deputy Assistant Director of the Crime Laboratory will be responsible for maintaining a Crime Laboratory Directives Manual for the laboratory. This Manual will be updated as necessary and incorporated into the appropriate manual when applicable.

### **7.2 Section Policy and Procedure Manuals**

- 7.2.1 Each Section of the Crime Laboratory will maintain an individual Policy and Procedure Manual deemed appropriate by the Crime Laboratory Director, Special Agent in Charge/Supervisor or designee within the Section.
- 7.2.2 The Special Agent in Charge/Supervisor or designee of each Section will update, revise and/or rescind these orders as necessary and provide documentation to the Director of the Crime Laboratory as appropriate to effect such changes.
- 7.2.3 Section Supervisors will define quality control (QC) requirements for each of the Section's procedures. As appropriate, the following QC practices and components will be addressed in the Procedures Manuals.
  - 7.2.3.1 Standards – Materials or items of known or well-established composition used to prepare QC samples or used as QC samples. Standards must be verified and documented prior to use on casework.
  - 7.2.3.2 Blanks (Negative Controls) - QC samples which determine if any contamination is present in all or part of an analytical procedure. Procedures will define the frequency at which negative controls will be run and where results will be recorded.
  - 7.2.3.2 Laboratory Control Samples (Positive Controls) - QC samples which determine if the analytical process has been performed

properly/successfully. Procedures will define the frequency at which positive controls will be run and where results will be recorded.

- 7.2.4 Protocol Deviations - It must be noted that some examinations cannot be performed exactly as written in the Laboratory's SOPs because of the widely variable nature of evidence. When such deviations are foreseeable, they should be addressed in the appropriate Procedures Manual or an SOP, as appropriate. However, case note documentation must record unexpected deviations from written technical procedures occasioned by unusual evidence. In addition, deviations from documented policies and procedures should be discussed with the Technical Leader and/or Section Supervisor. Major deviations shall require formal written approval by the Section Supervisor.

Refer to each Section/Unit for a copy of individual Section Policy and Procedures Manuals.

## **8.0 Technical Procedures**

- 8.1 Crime Laboratory procedures used in forensic analysis will be readily available to analysts of the Crime Laboratory.
- 8.2 Each analyst in the Crime Laboratory may use an uncontrolled copy of the Section's Technical Procedures Manual. A controlled copy of this Manual will be maintained in each Section conference room or on the Section's shared folder of the SBI's network. The Special Agent in Charge or designated research analysts will be responsible for distribution of all updates and changes to each of these Manuals. It is the analysts' responsibility to use the most current version.
- 8.3 A designated analyst conducting research on a specific reagent, processing method or equipment may utilize the techniques and chemicals with the approval of the Special Agent in Charge. Research and validation standards must be conducted while obeying all safety and operating guidelines which are available at the time.
- 8.4 A designated research analyst or technical leader in each Section will be responsible for research of new reagents, performance testing of new equipment, method validation and other experimentation conducted within the Section. The Special Agent in Charge/Supervisor may implement or discontinue procedures at any given time based on current forensic practices.
- 8.5 New methodology/technology within the Crime Laboratory will be researched and validated prior to usage with specific criteria and documentation.
  - 8.5.1 Standards – Each procedure will be tested on various types of applicable substrates to determine the feasibility and practical application in each Section. New instrumentation and equipment will be subjected to known standard validation procedures and the results documented.
  - 8.5.2 Consistency - Any significant modification made to the analytical procedures provided will be compared to the original procedure using identical samples when possible. Techniques tested will be compared to previously approved or existing applicable procedures and the results compared. Results should be reproducible, if not better.
  - 8.5.3 Time - Various substrates with test impressions will be treated and/or tested at various periods of time to compare and document the results.

If feasible, various environmental conditions should be included in this process.

- 8.5.4 Documented Reports - Methodology Research Reports will include all chemicals necessary for procedure(s), formulations and/or directions for preparation of solution(s), application techniques, preservation methods, type of sample utilized and how treated, any variances of prior methods, safety considerations and final comparisons, conclusions and results.
- 8.5.5 All procedures will be supported by available literature and pertinent documentation, research and test records, control samples and/or photographic reproductions, and safety information. This reference material should be compiled and maintained by the research analyst for review by any member of the forensic science community.
- 8.5.6 Upon approval and review of validation testing by the Special Agent in Charge, Safety Officer and/or the Deputy Assistant Director, the research analyst will develop finalized written procedures on all techniques and equipment.

## 8.6 Historical and Archive Records

Documentation related to any technical procedure removed from the approved list of procedures will be maintained by the Special Agent in Charge or his/her designee.

## **9.0 Data Analysis and Reporting**

### **9.1 Independent Analysis**

All analysis performed within each Section shall be independent and conclusions based on scientifically sound premises. Each Section shall adopt guidelines to ensure analysis is conducted according to quality assurance programs.

### **9.2 Verifications**

9.2.1 Refer to each Section's policy and procedure manual to determine if a verification or review needs to be done.

### **9.3 Report Writing and Review**

9.3.1 Lab reports will be issued on all examinations.

#### **9.3.2 Review of Reports**

All lab reports will be reviewed by appropriately designated personnel as approved by the Special Agent in Charge.

9.3.3 When associations are made, the significance of the association must be described clearly and properly qualified in the report.

### **9.4 Case Statistical Reports**

Statistical reports will be compiled and submitted to the Crime Laboratory Director's Office weekly by each section. This information will be compiled each week by the Crime Laboratory Director's Office and distributed to each Special Agent in Charge/Supervisor and the SBI Director.

### **9.5 Technical Case Review**

All laboratory reports and case notes will have a peer review conducted by another analyst with expertise in the discipline used during the analysis. The technical review must be documented on the case review page in FLAIRS. The review will be to such an extent as to determine that the conclusions of the analyst are reasonable and within the constraints of scientific knowledge. The technical review ensures that the results and conclusions drawn in the laboratory report are substantiated by the case notes.

#### 9.6 Administrative Case Review

An administrative review must be conducted to ensure the completeness and correctness of the report issued. The scope of the administrative review includes an overall quality control check of the case notes and report.

#### 9.7 Final Quality Control Check

Each Section may implement a final quality review of case notes and reports printed from FLAIRS. A final quality control check or clerical review may be conducted by another analyst or the Office Assistant to ensure the reports and notes are in compliance with Section policy and procedures.

#### 9.8 Corrective action and discrepancies

The Crime Laboratory from time to time will experience technical or administrative case-related discrepancies. The Quality System has established processes to identify, track, complete the investigation of the problem and correct the causes of existing non-conformances including complaints in products, processes, the NCSBI Crime Laboratory Quality Management System, and services in the SBI's main Crime Laboratory, Western Regional Crime Laboratory and Triad Regional Crime Laboratory. Major discrepancies require management to take positive action in a timely manner. The Laboratory will identify the root cause of a problem, correct the discrepancies and implement a solution to avoid recurrence and maintain an acceptable level of quality.

Corrective actions taken whenever analytical discrepancies are detected will be in accordance with the Section policies and procedures and the State Bureau of Investigation Policy & Procedures Manual. Refer to Crime Laboratory Directive #07-01 for an in-depth discussion of Laboratory Discrepancies and Corrective Action.



## **10.0 Proficiency Testing**

### **10.1 Open Proficiency Testing**

All Crime Laboratory personnel conducting forensic examinations will be tested at least once each year for each trained discipline with an open proficiency test. These tests may be prepared internally and/or may be part of an external proficiency testing program. Each Section may adopt additional guidelines as deemed appropriate by the Special Agent in Charge/Supervisor. Each analyst must be proficiency tested at least once every five years in each subdiscipline the analyst performs casework and issues reports. This testing may be either internal or external proficiency testing. Refer to the SBI Policy and Procedure Manual – Procedure #39.

### **10.2 Proficiency Test Files**

The Special Agent in Charge will maintain records of all proficiency tests taken, any deficiencies noted, and - if applicable - corrective action taken. All deficiencies will be corrected according to the SBI Policy and Procedure Manual and Crime Laboratory Directive #07-01. These records will be maintained by the Deputy Assistant Director of the Crime Laboratory, or his designee.

## **11.0 Court Testimony**

- 11.1 All analysts, technicians or support personnel testifying in court will be evaluated at least once annually following the evaluation cycle by an appropriate individual according to SBI Policy and Procedures. When an analyst, technician or support personnel does not testify during this period, the Special Agent in Charge will ensure that the Quality Control Manager documents this on Crime Laboratory logs at the conclusion of this period.
- 11.2 Court testimony of Analysts will be monitored in accordance with Section policies and procedures and the State Bureau of Investigation Policy & Procedures Manual – Procedure 34 Lab Court Appearances. Court testimony evaluations will be documented on an SBI Expert Evaluation form (SBI-20).
- 11.3 Feedback will be provided to each employee testifying and this review documented by the Special Agent in Charge and the testifying employee. Upon completion of this review, the original form should be forwarded to the Quality Control Manager of the Crime Laboratory for inclusion in laboratory files.

## 12.0 Communications

### 12.1 Complaints

- 12.1.1 Complaints may be lodged by various means in writing, electronically through e-mail, by telephone, and in person.
- 12.1.2 Complaints can result from:
  - internal customers which include other Laboratory Sections and staff;
  - external customers which include Districts within the SBI's Field Division; other State Agencies, local government agencies; submitting agencies and appropriate court officials; other public and private forensic laboratories;
  - or the public, media, and other interested parties.
- 12.1.3 Complaints will be dealt within accordance to the State Bureau of Investigation Policy & Procedures Manual – Procedure 24 Internal Affairs and Crime Laboratory Directive #07-01.

### 12.2 Disclosure of Information

- 12.2.1 It is the policy of the NC SBI Crime Laboratory to treat case files, including all information received from the submitting agency as well as the data developed and the results reached in the examination of criminal evidence, as **confidential**.
- 12.2.2 Employees will not release the content of case files to any individual or entity that does not have the need to know. Essentially, those with the need to know are limited to appropriate members of the staff, the agency conducting the investigation or submitting the evidence, and appropriate court officials of the jurisdiction involved. Any deviation from this guideline must have the prior approval of the Section SAC/Supervisor or the Laboratory Director. Information will be disclosed and disseminated in accordance with the State Bureau of Investigation Policy & Procedures Manual – Procedure 35 Laboratory Records/Case Files, and Crime Laboratory Directive #08-01.

### **13.0 Audits and Inspections**

13.1 Audits are an important aspect of the Quality Assurance program. They are an independent review conducted to compare the performance of a Section with a standard within the appropriate disciplines. These audits are designed to provide Crime Laboratory Management an evaluation of the performance of each Section in meeting quality assurance policies and objectives.

#### **13.2 Annual ASCLD-LAB Internal Audit**

Each Section will be audited annually by a special team composed of Crime Laboratory Personnel. These individuals will prepare a report for the Assistant Director of the Laboratory and the Special Agent in Charge of each Section. The Special Agent in Charge will review all findings and will maintain this report along with documentation of steps taken to resolve any problems detected. The Special Agent in Charge/Supervisor will have the option of responding to all findings and reports and providing documentation of action taken to resolve existing problems.

#### **13.3 SBI Inspection**

Each Section of the Crime Laboratory is routinely inspected by an SBI Inspection Team. This team is composed of several agents from various field districts or laboratory Sections and the Special Agent in Charge of Professional Standards. During this time, all phases of the operation of the Section are scrutinized including: evidence handling and accountability, case turn-around-time, report writing, note taking, management practices, leave and time management policies, security, records security, inventory of equipment and supplies and personnel records.

#### **13.4 Annual review of the Quality System**

Once the SBI Inspection and annual ASCLD/LAB internal audits have been completed, the Quality Control Manager will conduct an annual review of the entire Quality System 1) to determine if the laboratory's Quality System and operational activities remain suitable and effective and 2) to introduce any necessary changes and improvements. This annual quality system review should occur prior to the ASCLD/LAB self-assessment due date. This planned review does not preclude management from reviewing the Crime Laboratory's activities throughout the year.

## **14.0 Safety**

### **14.1 Policy**

The Crime Laboratory will operate in strict accordance with the regulations of the pertinent federal, state, and local health and safety authorities.

### **14.2 Manuals**

A Crime Laboratory Safety Manual will be prepared and available to all employees of the Crime Laboratory.

General laboratory safety guidelines are covered in the North Carolina Department of Justice Employee Safety and Health Manual.

### **14.3 Disposal of Biological Waste**

Disposal procedures for biological wastes are covered in the Bloodborne Pathogen Compliance Program of the Crime Laboratory Safety Manual. Disposal of biological wastes generated by the Crime Laboratory should be coordinated with the SBI Forensic Biology Section. Refer to the Crime Laboratory Safety Manual Section 3.