IBIS Technician Training Manual

The training program outlined in this manual is intended to provide the IBIS technician with the knowledge, skills and abilities required to perform his/her duties. The training program may also be used for retraining or maintenance of skills and expertise. The technician will also receive a general overview of the quality policies of the laboratory and specific quality measures associated with the methods he may use within the Firearm & Toolmark Identification Section. This manual may be used as a complete training program or in parts depending on the training needs of the examiner. The training program may be modified as needed to address changing methods, updated procedures and new equipment.

The level of training provided to each new employee will vary based on the education and previous experience of the individual. An initial assessment of the employee's level of proficiency will be completed by the Lab Director, Quality Assurance Manager and/or Section Administrator. The assessment may include written or oral examinations, practical exercises and/or a review of relevant training documentation. Prior experience and proficiency in the Firearms Identification discipline will be documented in the employee's Staff Qualifications File and may result in abbreviated training. All IBIS equipment users must successfully complete a comprehensive competency test prior to performing casework in accordance with QM 5.2 and PM 8.

The Section Administrator will serve as the primary trainer for the new technician unless otherwise designated by the Lab Director. The primary trainer will oversee the training program for the new technician and may be assisted by others with discipline-specific knowledge and training. The primary trainer will be responsible for documenting the progress of the training program and for notifying the Lab Director and Quality Assurance Manager of the successful completion of training or the need for additional training. Progress meetings may be held with the Lab Director, Quality Assurance Manager, primary trainer and the new technician to determine the course of action for the training program.

The new technician will be required to read and become familiar with the Crime Lab's Safety Manual prior to engaging in any laboratory exercises. The new technician will be provided with a hardcopies or access to the Crime Lab's Quality Manual, Policy Manual, Operations Manual and all relevant Standard Operating Procedures for the assigned section.

The primary trainer or designee will provide operational and safety lessons to the new technician for each lab function and piece of equipment, if needed, prior to engaging in that activity. Each area of training must be satisfactorily completed before progressing to the next area of training.

The new technician is responsible for any assigned reading or reference material associated with the individual blocks of training. The primary trainer will identify current books, articles, journals and other literature and materials related to the training topic(s).

For all new technicians, it is the intent of this laboratory to utilize Forensic Technology Incorporated's (FTI) IBIS User's Training Programs (minimum of IBIS Basic User with IBIS Data

Analysis preferred in addition to the Basic User class) to provide the bulk of the training for the entry and correlation of cartridge cases; as well as the necessary in-house maintenance of the IBIS equipment. (see example brochure attached) FTI will be responsible for providing the content, assignments and testing for the content it provides. The trainee will provide the documentation of the content, assignments and test results to the primary trainer as soon as reasonably possible. The primary trainer will verify the successful completion of the assignments and test results and document their completion. Copies of the documentation will be maintained in the training record.

Examinations will be issued during or at the conclusion of each training module to evaluate the competency of the new technician. The following criteria will be used to determine the successful completion of the training program:

- All written/oral examinations require a passing score of 80%.
- All practical examinations (competency tests) require a passing score of 100%.

Any areas of concern resulting from the examinations will be addressed by the primary trainer through additional training. Failure in a practical examination is defined as the failure to obtain the expected results from the known samples provided by the primary trainer. Failure in a written/oral or practical examination will be reported to the Lab Director. A determination will be made about the extent of re-training prior to the technician being issued a follow-up examination. The failure of two consecutive examinations may result in additional disciplinary action as determined by departmental directives.

Upon successful completion of the training program, the primary trainer will notify the Lab Director and Quality Assurance Manager of the technician's competency in writing. A copy of the competency letter will be placed in the technician's Staff Qualification File. The technician will be issued an Authorization to Work letter which will include an effective date stating when the employee is authorized to perform the specific duties. This letter will authorize the employee to perform particular types of tests and/or calibration, to give opinions and interpretations and to operate particular types of equipment. The Authorization to Work letter will be signed by the Lab Director and will be included in the technician's Staff Qualification File.

The newly trained technician will be required to complete a period of supervised casework under the direct supervision of the primary trainer or his designee. The period of supervised casework will be used to monitor the technician's ability to complete the assigned duties related to casework, equipment operation and other required tasks.

The following documents may be used to supplement the IBIS technician's training:

- IBIS BRASSTRAX Training Guide version 2.3
- IBIS MATCHPOINT+ Training Guide version 2.3
- IBIS MATCHPOINT+ User Guide
- IBIS MATCHPOINT+ Release Notes
- IBIS TRAX-3D Administration Guide

IBIS Technician Training Program Outline

The following list of training topics may be covered during training. This list is not all inclusive and may be modified by the primary trainer, in consultation with the Lab Director, based on the education, prior experience, previous training, competencies and training needs of the individual. Many of these topics may be covered in general laboratory training.

Laboratory Safety

- Read Safety Manual
- Watch Safety Videos
- General Safety Practices
- Chemical Hygiene Plan
- Material Safety Data Sheets (MSDS)
- Biohazardous Material Handling Practices
- Location of Safety Equipment in the Section/common areas of the laboratory
- Emergency Evacuation of the Building
- Section Inspections and Record Keeping
- Fire Safety

General Laboratory Administrative Functions

- Lab security (limited access areas, file room security, and evidence storage)
- Location of Lab Manuals
- Accessing Case files
- File room procedures
- Signing out/returning case files
- Employee qualification file
- Documentation of continued training
- DNA swab for employee database
- Release of case related information
- Familiarize with Department Regulations and Training Academy (Plateau)

Quality Control

- Review of Crime Lab Quality Manual
- Meet with Quality Manager
- Instrument calibration
- Work product (proficiencies, peer review)
- Official reports (Reporting requirements, QM 5.10)
- Minimum Acceptable Markings (Lab requirements and CMPD directives)
- Evidence Seals
- Failed calibrations, suspect results and/or out of service equipment
- Peer Review (Administrative and Technical Reviews as defined by SOP, QM 5.9 and PM 2)
- Other Quality Assurance items

Operational Functions

- Processing Evidence Analysis Requests
- Signing evidence into the section & Chain of custody
- Evidence Storage
- Types of Evidence (Firearms – test fires, Fired Evidence,)
- Case submissions - Types of submissions (General, Priority)
- Requests for Additional Analysis
- Case File (Required contents, case cover sheet, notes, data, worksheets, copy or copies of lab request forms, property sheet(s), and communications about the case)
- Evidence Handling
    - Explain use of Complaint, Control and "F" numbers
    - Property Control sheet
    - Chain of custody (signing property sheet, initial and date evidence)
    - Receiving/returning evidence in lab
    - Receiving/returning evidence at property control
- LIMS Use (see below)
- Reference Materials (traceable standards, fired standards collection, firearm reference collection, magazine reference collection, sectioned cartridge collection, AFTE Journals, firearms publications/magazines)
- Resource File
- Firearms Section Library
- Shipping of trace evidence to the NC State Crime Laboratory
    - Reviewing SBI-5 Form
    - Requesting evidence
    - Packaging for SBI & shipping via FedEx
    - Receiving returned evidence
    - Repackaging for CMPD
    - LIMS
    - Returning evidence to P&E Div
    - Closing out the case file

IBIS Functions

- Test fires
- Evidence
- Acquisitions
- Correlations
- Checking calibrations
- Equipment Maintenance
- Hits

LIMS Training

- Evidence log-in when received
- Entering data
- Entering report content

Locking report after peer review
Searches
Court Testimony function

Legal training

Criminal law procedures
Review NC & Federal Firearm-related Statutes (regarding barrel and overall length and operability)
Review expert testimony statutes (N.C.G.S. § 8C Rule 702 Testimony by experts, Frye, Daubert, Melendez-Diaz, Giglio, etc.)

Ethics training

Ethical practices in forensic sciences
Review of ASCLD/LAB ethics
AFTE Code of Ethics

Review Case files (list complaint numbers)

IBIS Hits
Trace Cases

Practice cases with reference collection/manufactured evidence

Supervised Casework

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Approval

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