



# TENNESSEE BUREAU OF INVESTIGATION

## Forensic Services Division

### Quality Assurance Manual Scope

#### 1.0 Scope of Quality Assurance Manual

This Quality Assurance Manual contains or references the policies, practices and procedures of the Tennessee Bureau of Investigation-Forensic Services Division (TBI-FSD/TBI Crime Laboratory) quality system that ensure technical competence and valid forensic examination/calibration results. The TBI Crime Laboratory Quality Assurance Manual (QAM), the Tennessee Bureau of Investigation Policy and Procedures Manual (TBI PPM) and each Unit's Standard Operating Procedures (SOP) facilitate meeting accreditation requirements set forth by our accrediting body.

ANSI National Accreditation Board (ANAB) is an accrediting body for testing and calibration laboratories, including forensic service laboratories. ANAB requirements are based on the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) 17025 General Requirements for the Competence of Testing and Calibration Laboratories (ISO/IEC 17025) and the American National Standards Institute. The combined requirements of ISO 17025 and ANAB are hereafter referred to as ANAB. The QAM facilitates internal and external audits of the quality system to evaluate the TBI Crime Laboratory's conformance with ANAB.

In the Quality Assurance Manual and in Unit SOPs, the following verbal forms are used:

- "shall" indicates a requirement;
- "must" indicates a requirement;
- "will" indicates a requirement;
- "should" indicates a recommendation;
- "may" indicates a permission;
- "can" indicates a possibility or a capability.

#### 1.1 Vision Statement

The Tennessee Bureau of Investigation-Forensic Services Division Crime Laboratories will be in the forefront in the delivery of scientifically accurate, reliable and thorough forensic testing and calibration services to law enforcement. This is accomplished through:

- Utilization of a detailed quality assurance program developed to meet the highest standards for quality forensic testing and calibration services;
- Endeavoring to complete cases as soon as possible within the boundaries of its resources and quality system;

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-Innovative uses of technology to facilitate investigations;  
-Monitoring by management system to ensure laboratory activities continue to meet the needs of its customers;

-A work environment which encourages open communication, initiative, creativity and personal growth and achievement of laboratory personnel.

#### **1.2 Goals and Objectives**

1. Make the Quality Assurance Program appropriately formal and visible throughout the Forensic Services Division Laboratory System.
2. Develop standards of good laboratory practice and make these standards a viable part of the Forensic Services Division.
3. Make the standards for quality explicit to all Forensic Services Division personnel and thereby maintain and preserve these standards.
4. Coordinate a Forensic Services Division Program for calibration and maintenance of scientific instruments.
5. Coordinate a Forensic Services Division Program to ensure the reliability of reagents and standards.
6. Ensure uniformity and accountability in records and analytical procedures.
7. Ensure accuracy of the data generated through a thorough case review program.
8. Ensure and use procedures that are valid, reliable, reproducible and are adequate for the intended purpose.
9. Investigate incidents occurring during the performance of laboratory activities and documenting the actions taken.
10. Ensure personnel performing the procedures are appropriately trained and have the appropriate level of education.
11. Monitor the competence of all personnel and their ability to interpret the results by providing appropriate proficiency tests.
12. Provide a safe working environment for all personnel.



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13. Ensure that management system policies are followed through participation in internal laboratory audits and external assessments.
14. Coordinate the Forensic Services Division Quality Assurance Program to meet and maintain requirements for laboratory accreditation.
15. Continually evaluate the Management Operations and Technical Operations of the Forensic Services Division to ensure both time and resources are being properly utilized as required by our customers and the State of Tennessee.

### 1.3 Capabilities

The following table is a list of services provided by the TBI Crime Laboratory:

Discipline	Categories of Testing
Forensic Chemistry	Drug Identification
Toxicology	Human Performance Forensic Toxicology Post Mortem Forensic Toxicology Blood Alcohol / Alcoholic Beverage Analysis
Forensic Biology	Body Fluid Identification DNA Nuclear (STR/Y-STR)
CODIS	CODIS Database
Microanalysis-Fire Debris	Fire Debris
Microanalysis-Gunshot Residue	Gunshot Residue
Microanalysis-Impression	Impression Evidence Physical Analysis/ Comparison Analysis
Microanalysis-Materials	Paint Fibers and textiles Glass Chemical Analysis
Firearm/Toolmark	Firearm Toolmark Serial Number Restoration Distance Determination NIBIN Database
Latent Prints	Latent Print Processing/ Friction Ridge Comparison

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	AFIS Database
Crime Scene	Crime Scene Processing
Breath Alcohol	Calibration and Certification Operator Training

#### 1.4 Service Areas

**1.4.1** The State of Tennessee is divided into three grand divisions, which are served by the three regional laboratories of the Forensic Services Division (East-Knoxville, Middle-Nashville, and West-Jackson).

**1.4.2** On occasion it may be necessary to transfer evidence between laboratories for analysis due to differences in capabilities. Below is a list of the three laboratories and the services offered:

- Forensic Chemistry (Knoxville, Nashville, Jackson)
- Firearm/Toolmark (Nashville, Jackson)
- Toxicology (Knoxville, Nashville, Jackson)
- Latent Prints (Nashville)
- Microanalysis (Nashville)
- Forensic Biology (Knoxville, Nashville, Jackson)
- CODIS (Knoxville, Nashville, Jackson)
- Breath Alcohol (Knoxville, Nashville, Jackson)
- VCRT (Knoxville, Nashville, Jackson)