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**Standard for a Quality Assurance Program in
Bloodstain Pattern Analysis**

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Standard for a Quality Assurance Program in Bloodstain Pattern Analysis

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Foreword

It is recognized that Bloodstain Pattern Analysis is practiced by individuals employed by a variety of agencies offering forensic services. For accredited laboratories that already have an established quality assurance program, this document is not intended to supplant the quality standards set forth by accreditation, but may assist these agencies in the refinement of their program relative to BPA. In addition, this document is intended to provide the framework for other agencies in the development of a BPA quality assurance program.

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This document was revised, prepared, and finalized as a standard by the Bloodstain Pattern Analysis Consensus Body of the AAFS Standards Board. The draft of this standard was developed by the Bloodstain Pattern Analysis Subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science.

Questions, comments, and suggestions for the improvement of this document can be sent to AAFS-ASB Secretariat, asb@aafs.org or 401 N 21st Street, Colorado Springs, CO 80904.

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Standard for a Quality Assurance Program in Bloodstain Pattern Analysis

1 Scope

This document provides requirements for establishing and maintaining a documented quality assurance program in bloodstain pattern analysis (BPA) to forensic science service providers. A quality assurance program is necessary to ensure the quality of the work product that comes from any forensic science service provider.

2 Normative References

The following references are documents that are indispensable for the application of the standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ANSI/ASB Standard 158, *Standard for Developing Standard Operating Procedures in Bloodstain Pattern Analysis*.^a

3 Terms and Definitions

For purposes of this document, the following definitions apply.

3.1 assessment

A method used to evaluate an individual's knowledge, skills and abilities in BPA.

3.2 Forensic Science Service Provider FSSP

A forensic science agency or forensic science practitioner providing forensic science services.

4 Requirements

4.1 Personnel and Qualifications

The FSSP shall have written specifications defining the minimum education, training, and experience required of an individual in order to perform BPA (refer to ANSI/ASB Standard 032, *Standard for a Bloodstain Analyst's Training Program*).

4.2 Standard Operating Procedures

The FSSP shall have written and approved standard operating procedures (SOPs) regarding BPA developed in accordance with ANSI/ASB Standard 158, *Standard for Developing Standard Operating Procedures in Bloodstain Pattern Analysis*.

^a Available from: <https://www.aafs.org/academy-standards-board>

4.3 Case Files

The FSSP shall have written procedures for the content and maintenance of BPA case files.

4.4 Assessments

The FSSP shall have in place a documented program of ongoing skill assessment of the bloodstain pattern analyst. This assessment procedure includes, but is not limited to:

- a) proficiency testing (refer to ANSI/ASB Standard 157, *Required Components for a Proficiency Testing Program in Bloodstain Pattern Analysis*).
- b) courtroom testimony evaluation (refer to ANSI/ASB Standard 032, *Standard for a Training Program in Bloodstain Pattern Analysis*)

4.5 Corrective Action

The FSSP shall establish written procedures for identifying deficiencies and implementing corrective actions to address such issues as administrative, analytical, interpretive, or skill-assessment errors.

4.6 Safety

The FSSP shall maintain a documented health and safety program. This should include health and safety practices consistent with relevant safety organizational standards for the occupational exposure to bloodborne pathogens and occupational exposure to hazardous chemicals used in BPA, as well as awareness of the physical hazards that may occur in the course of the analysis.

4.7 Facilities

The FSSP shall have a documented program that ensures the facility is secured from unauthorized access and maintained in a condition that minimizes the risk of contamination of evidence.

4.8 Evidence Control

The FSSP shall have a documented evidence control system to ensure the integrity of physical evidence.

4.9 Equipment and Reagents

4.9.1 The FSSP shall have a documented program, developed in accordance with ANSI/ASB Standard 158, *Standard for Developing Standard Operating Procedures in Bloodstain Pattern Analysis*, to monitor the maintenance and calibration of equipment or instrumentation that affect the accuracy and validity of BPA analyses.

4.9.2 The FSSP shall have documented procedures for the testing of reagents utilized in casework to ensure their functionality.

4.10 Validation

The FSSP shall have written procedures requiring all new techniques to be validated before their use in BPA applications (refer to ANSI/ASB Standard 072, *Standard for the Validation of Procedures in Bloodstain Pattern Analysis*).

4.11 References

The FSSP should cite and maintain all reference material used to create the Quality Assurance Program.

5 Conformance

The FSSP shall have a documented program in place for the periodic conformity assessment of BPA case files to ensure their adherence to the FSSP Quality Assurance program requirements.

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Annex A (informative)

Bibliography

The following bibliography is not intended to be an all-inclusive list, review, or endorsement of literature on this topic. The goal of the bibliography is to provide examples of publications addressed in the standard.

- 1] ANSI/ASB Standard 032, *Standard for a Training Program in Bloodstain Pattern Analysis*, First Edition, 2020.^b
- 2] ANSI/ASB Standard 072, *Standard for the Validation of Procedures in Bloodstain Pattern Analysis*, First Edition, 2019.^b
- 3] ANSI/ASB Standard 157, *Required Components for a Proficiency Testing Program in Bloodstain Pattern Analysis*, First Edition.^b
- 4] ANSI/ASB Standard 158 *Standard for Developing Standard Operating Procedures in Bloodstain Pattern Analysis*, First Edition.^b

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