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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 forensic science service providers (FSSPs) in the refinement of their program relative to BPA. In addition, this document is intended to provide the framework for other FSSPs 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 the first edition 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 reference is a document that is indispensable for the application of the standard. 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 Forensic Science Service Provider FSSP

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

3.2 performance monitoring

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

3.3

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 (see ASB Standard 032, *Standard for a Bloodstain Analyst's Training Program*– *not yet published*^[1]).

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>

33 4.3 Case Files

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

35 4.4 Performance Monitoring

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

38 a) proficiency testing (refer to ANSI/ASB Standard 157, *Required Components for a Proficiency*
39 *Testing Program in Bloodstain Pattern Analysis*^[3]).

40 b) courtroom testimony evaluation (see to ASB Standard 032, *Standard for a Bloodstain Pattern*
41 *Analyst's Training Program – not yet published*^[1])

42 4.5 Corrective Action

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

46 4.6 Safety

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

51 4.7 Facilities

52 The FSSP shall have a documented program that ensures the facility is secured from unauthorized
53 access and maintained in a condition that minimizes the risk of contamination, loss, or degradation
54 of evidence.

55 4.8 Evidence Control

56 The FSSP shall have a documented evidence control system to ensure the integrity of evidence in its
57 possession.

58 4.9 Equipment

59 The FSSP shall have a documented program, developed in accordance with ANSI/ASB Standard
60 158, *Standard for Developing Standard Operating Procedures in Bloodstain Pattern Analysis*, to
61 monitor the maintenance and calibration of equipment that affects the accuracy and validity of BPA
62 analyses.

63 4.10 Validation

64 The FSSP shall have written procedures requiring all new techniques to be validated before their
65 use in BPA applications (refer to ANSI/ASB Standard 072, *Standard for the Validation of Procedures*
66 *in Bloodstain Pattern Analysis*^[2]).

67 **4.11 References**

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

70 **5 Audits**

71 The FSSP shall have a documented program for the periodic auditing of BPA case files to ensure
72 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] ASB Standard 032, *Standard for a Bloodstain Analyst's Training Program*, 2nd Ed. – *not yet published*.
- 2] ANSI/ASB Standard 072, *Standard for the Validation of Procedures in Bloodstain Pattern Analysis*, 1st Ed., 2019^b.
- 3] ANSI/ASB Standard 157, *Required Components for a Proficiency Testing Program in Bloodstain Pattern Analysis*, 1st Ed., 2023^b.

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



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