STANDARDS BULLETIN

July 2020

This Standards Bulletin from the Organization of Scientific Area Committees (OSAC) for Forensic Science provides an update on:

- Standards moving through the OSAC Registry approval process.
- Standards moving through the development process at standards developing organizations (SDOs).

New standards placed on the OSAC Registry: 6
OSAC Registry documents open for comment: 0
SDO documents open for comment: 3

OSAC REGISTRY UPDATES

The OSAC Registry serves as a repository of scientifically sound forensic science standards that address discipline-specific forensic science needs. A document included on the Registry has progressed through the formal SDO process and has been published as a standard. OSAC elevates standards to the OSAC Registry as an endorsement of the document's high quality and to encourage its use by relevant stakeholders in the forensic science community.

New Documents on the OSAC Registry

Digital/Multimedia

- ASTM E2916-19e1 *Standard Terminology for Digital and Multimedia Evidence Examination* (OSAC Digital Evidence Subcommittee, effective July 7, 2020).
- ASTM E3017-19 *Standard Practice for Examining Magnetic Card Readers* (OSAC Digital Evidence Subcommittee, effective July 7, 2020).
- ASTM E3150-18 *Standard Guide for Forensic Audio Lab Setup and Maintenance* (OSAC Digital Evidence Subcommittee, effective July 7, 2020).

Materials (Trace)

- ASTM E1967 *Standard Test Method for the Automated Determination of Refractive Index of Glass Samples Using the Oil Immersion Method and a Phase Contrast Microscope* (OSAC Materials (Trace) Subcommittee, effective July 7, 2020).
- ASTM E2330 *Standard Test Method for Determination of Concentrations of Elements in Glass Samples Using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) for Forensic Comparisons* (OSAC Materials (Trace) Subcommittee, effective July 7, 2020).

Toxicology

- ANSI/ASB Standard 036, *Standard Practices for Method Validation in Forensic Toxicology*, First Edition, 2019 (OSAC Toxicology Subcommittee, effective July 7, 2020).

Intent to Add to the OSAC Registry – Items Open for Comment

- None currently.

In the Comment Adjudication Phase

- ANSI/ASB Standard 019, *Wildlife Forensics General Standards*, First Edition, 2019.
- ANSI/ASB Standard 022, *Standard for Forensic DNA Analysis Training Programs*, First Edition, 2019.
- ANSI/ASB Standard 029, *Report Writing in Wildlife Forensics: Morphology and Genetics*, First Edition, 2019.
- ANSI/ASB Standard 030, *Standard for a Quality Assurance Program in Bloodstain Pattern Analysis*, First Edition, 2019.
- ANSI/ASB Standard 045, *Standard for Stature Estimation in Forensic Anthropology*, First Edition, 2019.

- ANSI/ASB Standard 046, *Wildlife Forensics Validation Standards – STR Analysis*, First Edition, 2019.
- ANSI/ASB Standard 048, *Wildlife Forensics DNA Standard Procedures*, First Edition, 2019.
- ANSI/ASB Standard 072, *Standard for the Validation of Procedures in Bloodstain Pattern Analysis,* First Edition, 2019.
- ANSI/ASB Standard 090, *Standard for Sex Estimation in Forensic Anthropology*, First Edition, 2019.
- ANSI/ASB Standard 106, Wildlife Forensics – Protein Serology Method for Taxonomic Identification, First Edition, 2020.
- ASTM E3233-20 *Standard Practice for Forensic Tape Analysis Training Program.*
- ASTM E3234-20 *Standard Practice for Forensic Paint Analysis Training Program.*

At FSSB for Vote

- None currently.

Sent Back to SDO for Revision

- ASTM E3016 *Standard Guide for Establishing Confidence in Digital and Multimedia Evidence Forensic Results by Error Mitigation*.
- ASTM 3046-15 *Standard Guide for Core Competencies for Mobile Phone Forensics.*

NOTE: Criminal justice agencies can access the ASTM standards listed above by visiting OSAC's Access to Standards webpage.

For a list of all standards currently under Registry consideration, please visit the OSAC website.

Has your organization already started implementing OSAC Registry approved standards?
Complete OSAC's Laboratory Implementation Declaration Form and send it to mark.stolorow@nist.gov to let us know.
Share your implementation experience and be featured in a future OSAC news post.

SDO UPDATES

Published

The American Academy of Forensic Sciences Standards Board (ASB) has recently published three new documents:

- ANSI/ASB Standard 023, *Standard for Training in Forensic DNA Isolation and Purification Methods*, First Edition, 2020. This document, initially developed by OSAC's Biological Methods Subcommittee and finalized by the ASB DNA Consensus Body, provides requirements to ensure proper training in the methods of DNA isolation and purification used within the trainee's forensic DNA laboratory.
- ANSI/ASB Standard 031, *Standard for Report Writing in Bloodstain Pattern Analysis*, First Edition, 2020. This document, initially developed by OSAC's Bloodstain Pattern Analysis Subcommittee and finalized by the ASB Bloodstain Pattern Analysis Consensus Body, provides guidelines for report writing in bloodstain pattern analysis. In addition, guidance is provided regarding statements to be avoided in the report.
- ANSI/ASB Standard 111, *Standard for Training in Mitochondrial DNA (mtDNA) Analysis for Taxonomic Identification*, First Edition, 2020. This document, initially developed by OSAC's Wildlife Forensics Subcommittee and finalized by the ASB Wildlife Forensics Consensus Body, provides requirements to ensure proper training in animal taxonomic identification based on mitochondrial DNA (mtDNA) sequencing, data analysis, and reporting within the trainee's forensic DNA laboratory.

Comment Period Open on Draft Documents

ASB:

- ASB Best Practice Recommendation 052, *Best Practice Recommendation for the Detection of Footwear and Tire Impression Evidence*. This document provides best practice recommendations for personnel responsible for detecting footwear and tire impressions. These recommendations optimize the detection of impressions. The methods included in this document may not cover all aspects of unusual or uncommon conditions. This document is not intended as a substitute for training in the detecting of footwear and tire impression evidence. Completion of a training program and experience in these skills are essential to understanding and applying the recommendations outlined in this document. **Comment deadline July 13, 2020.**

- ASB Best Practice Recommendation 094, *Postmortem Impression Recovery: Guidance and Best Practices for Disaster Victim Identification*. This document provides guidance on, and highlights challenges associated with, obtaining postmortem prints from decedents and/or human remains in morgue operations associated with mass fatality disaster incidents. **Comment deadline July 13, 2020.**
- Recirculation* - ASB Standard 026, *Canine Detection of Humans: An Aged Trail Using Pre-scented Canines*. This document provides the requirements for training, certification and documentation pertaining to pre-scented canine-aged track/trail search. Pre-scented canine aged trail searches use a canine team (canine and handler) to search for and follow aged trails of a specific person's (target) scent over different surface types. An aged track/trail is a human scent pathway that has been present for some period of time, typically expressed with a time frame associated with the track/trail (e.g., a 24-hour or older track/trail) **Comment deadline July 27, 2020.**

*Comments on a re-circulation will only be accepted on revised sections of a document, comments made to text not revised from the original comment period will not be accepted.

For the ASB documents listed above, download the comment template and return it to asb@aafs.org by the comment deadline.

Work Proposals for New or Revised Standards

The following documents are being initiated and are expected to result in a new or revised standard.

ASB:

- On May 29, 2020 a Project Initiation Notification System (PINS) was published on page 24 in the *ANSI Standards Action*. This will begin a 30-day period for public comment on the initiation of ASB's work on the following documents:
    - BSR/ASB BPR 142-202x, *Best Practice Recommendations for the Resolution of Conflicts of Friction Ridge Examination*. This document provides the best practice recommendations for how to resolve conflicts between examiners at any point during the technical review or verification process of conflicting suitability decisions, conflicting source conclusions, and documentation of conflict resolution. This document does not address differences of opinion that occur at the consultation level or any organizational response once an error is discovered or the conflict(s) are resolved.
    - BSR/ASB BPR 146-202x, *Standard for Resolving Commingled Remains in Forensic Anthropology*. This standard provides the procedures and requirements for

resolving commingled remains. The techniques presented include size, age, and sex similarities; articulation between elements; taphonomic similarities; and reconstruction of fragmentary remains. The document also describes the determination of MNI (Minimum Number of Individuals), as well as the LI (Lincoln Index) and MLNI (Most Likely Number of Individuals) based on the number of paired and unpaired bones.

- On June 5, 2020 a PINS was published on page 23 in the *ANSI Standards Action*. This will begin a 30-day period for public comment on the initiation of ASB's work on the following document:
    - BSR/ASB Std 153-202x, *Standard Practices for Proficiency Testing for Forensic Toxicology Laboratories*. This document defines the minimum scope and frequency for proficiency testing for laboratories engaged in the following sub-disciplines: postmortem forensic toxicology, human performance toxicology (e.g., drug-facilitated crimes, driving-under-the-influence of alcohol or drugs, breath alcohol), and general forensic toxicology (non-lethal poisonings or intoxications). This document is not intended to cover employment drug testing or court-ordered toxicology (e.g., probation and parole, drug courts, child services).
- On June 12, 2020 a PINS was published on page 31 in the *ANSI Standards Action*. This will begin a 30-day period for public comment on the initiation of ASB's work on the following document:
    - BSR/ASB Std 152-202x, *Standard for Minimum Content Requirements of Forensic Toxicology Procedures.* This document provides requirements for the minimum content of technical and analytical procedures in forensic toxicology. This standard applies to laboratories performing forensic toxicological analysis in the following subdisciplines: postmortem forensic toxicology; human performance toxicology (e.g., drug-facilitated crimes and driving-under-the-influence of alcohol or drugs); non-regulated employment drug testing, court-ordered toxicology (e.g., probation and parole, drug courts, child services, breath alcohol); and general forensic toxicology (non-lethal poisonings or intoxications).
- On June 26, 2020 a PINS was published on page 86 in the *ANSI Standards Action*. This will begin a 30-day period for public comment on the initiation of ASB's work on the following documents:
    - BSR/ASB Std 148-202x, *Standard for Personal Identification in Forensic Anthropology*. This standard provides requirements for establishing the biological profile and contributing information (such as comparative radiography and serial numbers on surgical implants) leading to a positive identification of human remains. This standard does not address identification of living individuals.
    - BSR/ASB Std 149-202x, *Standard for Taphonomic Observations in Support of the*

Postmortem Interval. This standard provides requirements for describing and analyzing the taphonomic effects on human remains and associated evidence that can be observed in the laboratory as well as in the field. Also, it provides requirements for recording and reporting the taphonomic and contextual indicators that contribute to estimating the postmortem interval in sufficient detail to allow for independent interpretation, replication, and verification of conclusions drawn.

- BSR/ASB Std 150-202x, *Standard for Determination of Medicolegal Significance from Skeletal Material*. This standard sets procedures required for the determination and identification of remains as skeletal or nonskeletal. It further sets methodological, testing, and observational procedures for identifying skeletal remains as either human or non-human and sets required procedures to assess the relevancy of human remains to the medicolegal death investigation system.

OTHER NEWS

Register Now for a Three-Part Webinar Series on Biology/DNA Standards and Best Practices

Join OSAC, ASB and Promega for a three-part webinar series that will provide information on new/emerging standards and best practice recommendations applicable to forensic biology and DNA testing laboratories.

The first webinar in this series, **Development and Publication of New Standards and Best Practices – The Process**, will describe the complete process for standards development within OSAC and ASB.

You will learn:

- How these documents were conceived, written and developed into published standards
- An overview of OSAC and ASB; their history; the general process of document creation and construction
- The future process of maintaining or revising the documents

Part 1 of the webinar series will be held Wednesday, July 15, 2020 at 1pm EDT. **Register here!**

This three-part series on Biology/DNA standards and best practices will continue over the next few months. **Register for the series here.**

NIST Invites Forensic Laboratories to Participate in the Cannabis Quality Assurance Program (CannaQAP)

Does your laboratory develop quantitative methods to distinguish hemp from marijuana? Then participate in NIST's Cannabis Quality Assurance Program (CannaQAP). CannaQAP aims to help laboratories demonstrate and improve measurement comparability and/or competence for hemp determination through a perpetual interlaboratory study mechanism. Participating forensic laboratories can utilize this trusted tool to: 1) Obtain reliable quality control samples to evaluate an individual laboratory's performance and provide data that can be used in the validation of its measurement capabilities or, 2) Use their results to demonstrate their laboratory's purported capabilities.

CannaQAP exercises are designed to include a variety of sample types in increasing order of complexity. Laboratories are highly encouraged to participate in all exercises. Exercise 1 was designed to assess sources of instrumental method variability and exercise 2 will introduce variability of sample preparation/extraction of plant materials. The CannaQAP schedule will include multiple *Cannabis*-derived oils and plant exercises, while also incorporating extracts, concentrates, distillates, and edibles in future exercises.

EXERCISE	SAMPLE TYPE	WHEN
1	Hemp oils	June-July 2020
2	Plant (hemp and marijuana)	October 2020
3	TBD	April 2021
4	TBD	October 2021
5	TBD	April 2022

NIST is also planning to release a hemp plant Reference Material with a tentative target date of July 2021.

To participate in the CannaQAP, please contact the Cannabis/CannaQAP Team at cannabis@nist.gov. If you have any suggestions or questions regarding CannaQAP or other Cannabis projects at NIST, you can also email the Cannabis/CannaQAP Team.

Get Involved with OSAC

OSAC offers a variety of ways for members, affiliates and other experts in the forensic science community to participate in the standards advancement process. Click here to learn how you can help make an impact on the forensic science community through standards.