STANDARDS BULLETIN

September 2022

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

- Standards moving through the OSAC Registry approval processes for published and OSAC Proposed Standards.
- Standards moving through the development process at standards developing organizations (SDOs).

Bulletin Summary:

- New and updated standards added to the OSAC Registry: 9
- Standards under consideration for the Registry and open for comment: 4
- Standards open for comment at SDOs: 24

OSAC REGISTRY UPDATES

The OSAC Registry is a repository of high-quality, technically sound **published** and **proposed standards** for forensic science. These written documents define minimum requirements, best practices, standard protocols, and other guidance to help ensure that the results of forensic analyses are reliable and reproducible.

All the standards on the OSAC Registry have passed a rigorous technical and quality review by OSAC members, including forensic science practitioners, research scientists, statisticians, and human factors and legal experts.

Seven New Standards and Two Updated Standards Added to the OSAC Registry

Seven SDO Published Standards (added September 6, 2022):

- ANSI/ASB Standard 054, *Standard for a Quality Control Program in Forensic Toxicology Laboratories*, First Edition, 2021.
- ANSI/ASB Standard 119, *Standard for the Analytical Scope and Sensitivity of Forensic Toxicological Testing of Blood in Medicolegal Death Investigations*, First Edition, 2021.
- ANSI/ASB Standard 120, *Standard for the Analytical Scope and Sensitivity of Forensic Toxicological Testing of Blood in Impaired Driving Investigations*, First Edition, 2021.

- ANSI/ASB Standard 152, *Standard for the Minimum Content Requirements of Forensic Toxicology Procedures*, First Edition, 2021.
- ASTM E3309-21, *Standard Guide for Reporting of Forensic Primer Gunshot Residue (pGSR) Analysis by Scanning Electron Microscopy/Energy Dispersive X-Ray Spectrometry (SEM/EDS)*.
- NFPA 921-21, *Guide for Fire and Explosion Investigation*.
    - NOTE: This 2021 version will replace the previous 2017 version on the Registry.
- NFPA 1033-22, *Standard for Professional Qualifications for Fire Investigators*.
    - NOTE: This 2022 version will replace the previous 2014 version on the Registry.

For access to the ASTM And NFPA standards, visit OSAC's Access to Standards webpage.

Two OSAC Proposed Standards (added September 6, 2022):

- OSAC 2022-N-0026, *Medicolegal Death Investigation: Terms and Definitions*.
- OSAC 2022-N-0033, *Standard for Processing Evidence for the Detection of Friction Ridge Impressions*.

Standards Open for Comment for OSAC Registry Approval

SDO Published Standards

The OSAC Registry approval process for published standards is used to review existing SDO published standards for technical quality and placement on the Registry. **There are no SDO published standards currently open for comment for Registry approval.**

OSAC Proposed Standards

The OSAC Registry approval process for OSAC Proposed Standards is used to review OSAC drafted standards for technical quality and placement on the Registry. The following draft OSAC Proposed Standards are being considered for submission to an SDO. The final draft provided to the SDO will be available on the OSAC Registry as an "OSAC Proposed Standard."

OSAC welcomes comments on whether the current drafts are suitable for release to the SDO as well as suggestions for improvements in content and wording. **To be considered, comments must be placed in the OSAC Comment Form and sent to comments@nist.gov by 11:59 p.m. ET on October 3, 2022.**

- OSAC 2022-N-0021, *Family Engagement Following a Mass Fatality Incident: Victim Information Center Best Practice Recommendations for Medicolegal Authority*.
- OSAC 2022-S-0031, *Standard Guide for Forensic Digital Video Examination Workflow*.
- OSAC 2022-S-0038, *Standard for Feature Selection in Friction Ridge Examination*.
- OSAC 2022-N-0039, *Collecting and Preserving Entomological Evidence from a Terrestrial Environment*.

Is your organization implementing standards on the OSAC Registry?

Complete OSAC's Registry Implementation Declaration Form found on the OSAC website and send it to mark.stolorow@nist.gov to let us know. Your organization will subsequently be awarded an OSAC Registry Implementer Certificate.

SDO UPDATES

New Published Standard

The Academy Standards Board (ASB) published the following standard in August 2022:

- ANSI/ASB Standard 011, *Scope of Expertise in Forensic Document Examination*, First Edition, 2022.

Work Proposals for New or Revised Standards

On August 19, 2022, a Project Notification System (PINS) was published on page two in the *ANSI Standards Action*. This will begin ASB's work on the following standard:

- ASB 183-202x, *Best Practice Recommendation for Limited Friction Ridge Examinations*. This new standard provides best practice recommendations for policies and procedures regarding how to conduct limited examinations of friction ridge impression evidence, and proper documentation for these examinations. Limited exams are partial analyses, comparisons, and/or processing that do not fully utilize the capabilities of a Forensic Service Provider. This ASB effort is starting the formal SDO process for OSAC Proposed Standard 2021-N-0020, *Best Practice Recommendations for Limited Examinations* that was added to the OSAC Registry on April 5, 2022.

On August 26, 2022, a PINS was published on page two in the *ANSI Standards Action*. This will begin ASB's work on the following standard:

- ASB 122-202x, *Best Practice Recommendation for Performing Alcohol Calculations in Forensic Toxicology.* This document provides recommendations for performing alcohol (ethanol) calculations, to include retrograde extrapolation, forward estimations, minimum drinks consumed, and other typical situations. Recommendations are also provided for evaluation of post-absorptive stage, various specimen types, population variances, and reporting of calculations. This ASB effort is starting the formal SDO process for OSAC Proposed Standard 2020-S-0003, *Guidelines for Performing Alcohol Calculations in Forensic Toxicology* that was added to the OSAC Registry on May 3, 2022.

On September 2, 2022, a PINS was published on pages 2 and 3 in the *ANSI Standards Action*. This will begin ASB's work on the following standards:

- ASB 007-202x, *Postmortem Impression Submission Strategy for Comprehensive Searches of Essential Automated Fingerprint Identification System (AFIS) Databases*, Second Edition (revision and redesignation of ANSI/ASB 007-18). This document provides guidance for the proper pathways, image requirements, and resources for searching the totality of available antemortem fingerprint databases. It provides the process to ensure a complete and proper search of previously obtained fingerprints. The guidance will provide the steps for the medicolegal authority's submission to exhaust all possible searches and have the best chance of victim identification through AFIS searches.

- ASB 056-202x, *Standard for Evaluation of Measurement Uncertainty in Forensic Toxicology*, First Edition. This document provides minimum requirements for evaluating measurement uncertainty for forensic toxicology testing activities as well as calibration of breath alcohol measuring instruments. It does not address evaluating measurement uncertainty for breath alcohol testing.

Standards Open for Comment at SDOs

Stakeholders from the forensic science community are encouraged to provide input on standards as they are being developed at SDOs. For SDO published standards going through the OSAC Registry approval process, the public will have an opportunity to comment on a standard during the SDO's public comment period but will not be given a second opportunity to comment through OSAC on whether the resulting standard should be placed on the Registry.

Visit OSAC's Standards Open for Comment webpage to see the full list of forensic science standards open for comment at SDOs and how to submit your feedback. This page consolidates and tracks comment deadlines for you and will be updated on a weekly basis. It currently includes:

- 17 standards open for comment at ASB in biology/DNA (6), firearms & toolmarks (2), forensic anthropology (2), forensic toxicology (3), and friction ridge (4).
- 7 standards open for comment at ASTM in crime scene investigation (1), gunshot residue (1), ignitable liquids & explosives (3), seized drugs (1), and an interdisciplinary standard for training, continuing education, and professional development (1).

The Forensic Science Regulator (UK) is seeking views on a draft code of practice ('the code'). This draft code sets quality standard requirements for forensic activities related to the investigation of crime and the criminal justice system in England and Wales. The draft code applies to England and Wales, but the Regulator welcomes views from stakeholders across the UK.

OSAC PROGRAM OFFICE NEWS

Apply to Join OSAC!

The success of OSAC's efforts to facilitate the development of technically sound forensic science standards and promote the adoption of those standards by the forensic science community depends on your participation. OSAC is currently seeking to fill member vacancies on its committees and subcommittees due to a number of membership terms that will be expiring this September.

If you are one of the over 500 current members and are interested in seeking a second term, you will be considered for the vacancy. If you have previously applied, you do not have to submit a new application unless your contact information or other responses have changed since your original submission.

If you are interested in joining OSAC, please complete and submit an application form in order to be eligible and considered for the positions opening in October.
Please contact OSAC Project Manager, Donna Sirk (donna.sirk@nist.gov) for more information.

OSAC Public Update Meeting

Join us for the upcoming **OSAC Public Update Meeting taking place on September 13, 2022.** This virtual event will feature presentations from the seven chairs from OSAC's Scientific Area Committees and chair of the Forensic Science Standards Board. Each presenter will describe their unit's activities, including the standards they are working on, challenges being addressed, and priorities for the upcoming year. Attendees will also have an opportunity to ask questions and share feedback. Learn more and register.

OTHER FORENSIC SCIENCE NEWS, EVENTS & TRAINING

AAFS Standards Resources and Training

As part of a cooperative agreement with NIST, the American Academy of Forensic Sciences (AAFS) is developing training, tools, and resources to enhance implementation efforts and broaden awareness of forensic science standards among communities of interest.

One of these resources, AAFS Standards Factsheets, provide a clear, concise, and easy way to understand the purpose of a specific standard, why it is needed, and the benefits of adoption. There are currently **22** AAFS Factsheets available for standards listed on the OSAC Registry in the following forensic science disciplines: DNA, facial identification, fire debris & explosives, fire & explosion investigation, firearms & toolmarks, forensic toxicology, seized drugs, and trace materials.

AAFS is also developing Standards Checklists that FSSPs can use to track progress towards implementation, identify gaps or barriers to implementation, or document objective evidence of implementation or compliance of a standard. Checklists for six standards are being finalized now and it's anticipated that 30 checklists will be available by the end of September 2022. FSSPs will have an opportunity to learn more about how to use these checklists at the 2022 Association of Forensic Quality Assurance Managers (AFQAM) Training Conference in October and 2023 AAFS Annual Scientific Conference in February.

Upcoming Webinars & Short Courses

CSAFE WEBINAR: Tutorial on Likelihood Ratios with Applications in Digital Forensics | September 15, 2022 | 11:00 a.m. – noon CT

To date, digital forensics research has largely focused on extracting and reconstructing information from devices and the cloud. In comparison, there has been relatively little work on statistical methodologies that can be used to analyze such data after this step. In this webinar, the Center for Statistics and Applications in Forensic Evidence (CSAFE) will discuss statistical analyses in digital forensics, with a particular focus on likelihood ratios and ideas from Bayesian statistics.

AAFS WEBINAR: An Introduction to ANSI/ASB Standards 119, 120, and 121 – Defining the Analytical Scope and Sensitivity Required for Human Performance and Postmortem Forensic Toxicology | September 28, 2022

This one-hour presentation will introduce the audience to each of these standards, provide background on their development as they moved through first OSAC then ASB, highlight the benefits of each to the field, discuss implementation strategies, and end with a Q&A session. Additional details and registration information will be available on the AAFS website soon!

AAFS WEBINAR: ANSI/ASB Standard 036, *Standard Practices for Method Validation in Forensic Toxicology* | October 21, 2022 | 1:00 – 5:00 p.m. ET

Validation is the process of performing a set of experiments that reliably estimates the efficacy, reliability, and reproducibility of an analytical method. The goal of conducting validation experiments is to establish evidence which demonstrates that a method is capable of successfully performing at the level of its intended use and to identify the method's limitations under normal operating conditions.

This AAFS webinar will describe the requirements of ANSI/ASB 036, how to select the right calibration model for your calibration method, a real-world laboratory application of this standard, and how ANSI/ASB 036 aligns with the requirements of accreditation programs in forensic toxicology.

CSAFE SHORT COURSES:

- **Machine Learning for Forensic Practitioners** (all sessions are from 1:00 – 3:00 p.m. CT)
  - Session 1: September 1
  - Session 2: September 8
  - Session 3: September 15

- **Statistical Thinking for Forensic Practitioners** (all sessions are from 10:00 a.m. – noon CT)
  - Session 1: October 14
  - Session 2: October 21
  - Session 3: October 28
  - Session 4: November 4