STANDARDS BULLETIN

September 2023

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 development organizations (SDOs).

Bulletin Summary:

- New standards added to the OSAC Registry: 6
- Registry Extensions: 5
- Standards under consideration for the Registry and open for comment: 7
- New SDO Published Standards: 2
- New Work Proposals: 8
- Standards open for comment at SDOs: 35

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.

Six New Standards Added to the OSAC Registry

Three SDO Published Standards (added September 5, 2023):

- ANSI/ASB Standard 044, *Standard for Examination of Documents for Indentations*, 2019, 1st Ed.
- ANSI/ASB Best Practice Recommendation 050, *Best Practice Recommendation for Photographic Documentation of Footwear and Tire Impression Evidence*, 2021, 1st Ed. (Errata 1, 2022).

- ANSI/ASB Best Practice Recommendation 107, *Best Practice Recommendation for Measuring Trigger Pull of a Firearm and Estimating Its Uncertainty*, 2022, 1st Ed.

Three OSAC Proposed Standards (added September 5, 2023):

- OSAC 2022-S-0038, *Standard for Feature Selection in Friction Ridge Examination.*
- OSAC 2023-S-0006, *Standard Guide for Photographing Scars, Marks, and Tattoos.*
- OSAC 2023-N-0022, *Best Practice Recommendation for Communicating with Next of Kin during Medicolegal Death Investigations.*

The following five standards have been approved for a three year extension on the Registry (effective September 5, 2023):

- ANSI/ASTM E1610-18 *Standard Guide for Forensic Paint Analysis and Comparison*.
- ANSI/ASTM E2926-17 *Standard Test Method for Forensic Comparison of Glass Using Micro X-ray Fluorescence (μ-XRF) Spectrometry* .
- ANSI/ASTM E2927-16e1 *Standard Test Method for Determination of Trace Elements in Soda-Lime Glass Samples Using Laser Ablation Inductively Coupled Plasma Mass Spectrometry for Forensic Comparisons*.
- ANSI/ASTM E2937-18 *Standard Guide for Using Infrared Spectroscopy in Forensic Paint Examinations* .
- ANSI/ASTM E3085-17 *Standard Guide for Fourier Transform Infrared Spectroscopy in Forensic Tape Examinations*.

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. **Please submit your comments by 11:59 p.m. ET on October 2, 2023,** on whether the following SDO published standard should be included on the Registry:

- SWGDE 2022-09-22, *Best Practices for Remote Collection of Digital Evidence from a Networked Computing Environment (22-F-003-1.0)*. **Submit your comments here.**

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 2, 2023.**

- OSAC 2023-N-0014, *Standard Guiding Principles for the Medical Forensic Examination.*
- OSAC 2023-N-0023, *Standard Guide to the Forensic Speaker Recognition Landscape.*
- OSAC 2023-N-0025, *Standard for Education and Training in Forensic Odontology.*

- OSAC 2023-N-0027, *Standard Guide for Forensic Trace Evidence Recovery.*
- OSAC 2023-S-0018, *Standard Test Method for the Restoration of Obliterated Serial Numbers and Other Markings.*
- OSAC 2023-S-0028, *Best Practice Recommendation for the Resolution of Conflicts in Toolmark Value Determinations and Source Conclusions.*

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 forensics@nist.gov to let us know. Your organization will subsequently be awarded an OSAC Registry Implementer Certificate. Interested in learning more about implementation?

Check out OSAC's Implementation Recognition Factsheet.

SDO UPDATES

New Published Standards

ASTM recently published the following standards:

- ANSI/ASTM E1386-23 *Standard Practice for Separation of Ignitable Liquid Residues from Fire Debris Samples from Solvent Extraction* (revision).
- ANSI/ASTM E3295-23 *Standard Guide for Using Micro X-Ray Fluorescence (μ-XRF) in Forensic Polymer Examinations*

Work Proposals for New or Revised Standards

On August 11, 2023, a Project Initiation Notification System (PINS) was published on pages 2 and 5 in the *ANSI Standards Action*. This will begin ADA and ASTM's work on the following standards:

- BSR/ADA Standard No. 1058-202x, Dentistry - Forensic Dental Data Set (national adoption of ISO 20888:2020 with modifications and revision of ANSI/ADA Standard No. 1058-2010 (R2020)). The purpose of this standard is to provide uniform nomenclature for the description of forensic dental data and define a standardized set of uniform terms to convey this information. This standard meets the requirement to support the goal of interoperability between dental systems or dental-medical systems.
- BSR/ASTM E1020-202x, *Standard Practice for Reporting Incidents that May Involve Criminal or Civil Litigation* (new standard). This practice covers guidelines for the collection and preservation of information and physical evidence and the preparation of a documentation report relative to any incident(s) involving personal injury, property damage, commercial loss, or criminal acts which may reasonably be expected to be the subject of litigation.

On August 25, 2023, a Project Initiation Notification System (PINS) was published on pages 2-3 in the *ANSI Standards Action*. This will begin ASB's work on the following standards:

- BSR/ASB BPR 122-202x, *Best Practice Recommendation for Performing Alcohol Calculations in Forensic Toxicology* (new standard). This document provides recommendations for performing alcohol (ethanol) calculations to include retrograde extrapolation, forward estimations, minimum drinks consumed, and other typical situations/scenarios. Recommendations are also provided for evaluation of post-absorptive stage, various specimen types, population variances, and reporting of calculations. The principles and practices outlined in this best practice recommendation may also apply to postmortem scenarios, but there are additional variables to be considered that are outside the scope of this document. Expert opinions based on the results of these calculations are outside the scope of this document.
    - This is currently on the OSAC Registry as OSAC 2020-S-0003, *Guidelines for Performing Alcohol Calculations.*
- BSR/ASB Best Practice Recommendation 144 Addendum-202x, *Addendum to Best Practice Recommendations for the Verification Component in Friction Ridge Examination* (revision of ANSI/ASB BPR 144-2022). This document provides best practice recommendations for conducting the verification phase during friction ridge impression examinations. These recommendations apply to both suitability determinations and resulting conclusions addressing verification considerations (e.g., extent, utility, case type, approach), types of verification and application options, and documentation. This document does not address technical review.
- BSR/ASB Standard 173-202x, *Standard for Education, Training, Continuing Education, and Certification of Forensic Toxicology Laboratory Personnel* (new standard). This document provides minimum requirements for educational qualifications, training, competency, experience, continuing education, and certification of laboratory personnel performing, interpreting, or overseeing forensic toxicology analysis, as well as anyone performing breath alcohol instrument calibration. This applies to the following sub-disciplines: postmortem toxicology, human performance toxicology (e.g., drug-facilitated crimes and driving under-the-influence of alcohol or drugs), non-regulated employment drug testing, and other forensic testing (e.g., court-ordered toxicology, general forensic toxicology). The following are outside the scope of this document: laboratory personnel that exclusively perform administrative or non-technical duties; individuals working as breath alcohol instrument operators; individuals performing calibration adjustments to breath alcohol instruments, individuals who solely perform instrument maintenance activities, or individuals engaged in expert consultation outside of a forensic toxicology laboratory.
    - This was drafted by OSAC's Forensic Toxicology Subcommittee as OSAC 2021-N-0026, *Standard for Education and Training of Forensic Toxicology Personnel.*
- BSR/ASB Standard 187-202x, *Standard for Use of Serological Testing Methods Associated with Forensic Investigations* (new standard). This standard provides requirements for the quality assurance of documenting analytical procedures/protocols needed for the use of forensic serological methods to evaluate body fluids associated with forensic investigations. This standard includes requirements for laboratory facilities and evidence control; use and monitoring of the analytical procedures; reagents, chemicals, and equipment used for forensic serological testing. Also covered in this standard are the requirements for personnel performing serological testing, equipment maintenance/calibration, reports, records of testing, technical reviews, and administrative reviews. This document does not address details of validation, training, evidence handling, sample collection and preservation, reporting of analyses, testimony, and safety.

    - This is currently on the OSAC Registry as OSAC 2021-S-0028, *Standard for Use of Serological Testing Methods Associated with Forensic Investigations.*
- BSR/ASB Standard 201-202x, *Standard for the Examination of Financial, Identification, and Other Authorized Documents* (new standard). This standard provides procedures and requirements for determining the authenticity of financial (e.g., currency, checks, bonds), identification (e.g., driver licenses, passports), and other authorized documents (e.g., social security cards, vital records documents) that may originate with an issuing entity.
- BSR/ASB Standard 203-202x, *Standard for the Development of a Bloodstain Pattern Analyst Certification Program* (new standard). This document establishes the requirements for the development of a Bloodstain Pattern Analyst Certification program by certification providers.
    - This is currently on the OSAC Registry as OSAC 2022-N-0010, *Standards for Development of an Accredited Bloodstain Pattern Analyst Certification Program*.

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:

- 5 standards open for comment at ASB in Biology/DNA (1), Forensic Document Examination (1), Friction Ridge (1), and Wildlife Forensics (2).
- 14 standards open for comment at ASTM in Fire Debris & Explosives (3), Forensic Nursing (1), Gunshot Residue (1), Interdisciplinary (3), and Trace Evidence (6).
- 5 standards open for comment at FISWG for Facial Identification.
- 11 standards open for comment at SWGDE for Digital Evidence.

OSAC PROGRAM OFFICE NEWS

OSAC FSSB Meeting: Public Feedback Session

The OSAC Forensic Science Standards Board (FSSB) will have a public feedback session available during its upcoming quarterly meeting. The purpose for this public session is to provide stakeholders with an opportunity to share feedback with the FSSB related to agenda items or matters within the FSSB's authority. The FSSB will consider all feedback from the public, and remarks can be made by the submitter or by the OSAC Program Office on behalf of the submitter. The public session will take place virtually on **Thursday, September 14, 2023 from 2:30 - 3:00 p.m. ET.** If you wish to share feedback with the FSSB, please complete this **form** by September 11, 2023.

The schedules and agendas for upcoming FSSB meetings can be found on the **FSSB Meetings** webpage.

Paint Interlaboratory Wrap-up Session

In the summer of 2020, the Organization of Scientific Area Committees (OSAC) for Forensic Science's Trace Materials Subcommittee (SC) conducted an interlaboratory data collection exercise to evaluate the OSAC Proposed Standard "Standard Practice for Interpretation and Report Writing in Forensic Comparisons of Trace Materials," with the first round of the study focusing on forensic paint analysis. The document is currently under revision in the SC as OSAC 2022-S-0029, *Standard Guide for Interpretation and Reporting in Forensic Comparisons of Trace Materials*.

On September 29, 2023, 1:00pm ET, members of the Trace Materials Subcommittee will provide a virtual seminar with the study participants to review the interlaboratory study, including the published results[1]. In this session, presenters will highlight:

- Evaluation of the interlaboratory interpretation of simulated paint cases,
- How well the interpretation guide allowed the use of systematic criteria to reach consensus answers,
- Participant's results and feedback, and
- Additional interlaboratory studies using the OSAC Proposed Standard.

Pre-registration for the session is not necessary. The interlaboratory study summary presentation will be recorded. Following the presentation there will be an unrecorded question/answer session.

Mark your calendar and join us on September 29, 2023 at 1:00pm Eastern Time.

MS Teams: Click here to join the meeting
Meeting ID: 233 808 060 136 --- Passcode: CWFTaK
Call in (audio only)
+1 443-339-4347,,957362833#
Phone Conference ID: 957 362 833#

Interested in participating in the next interlaboratory data collection exercise to evaluate forensic glass analysis?

The next interlaboratory study is scheduled for Fall 2023. Register here to express your interest in participating.

OTHER FORENSIC SCIENCE NEWS, EVENTS & TRAINING

Upcoming Events

[1] Andria Mehltretter, Meghan Prusinowski, Hal Arkes, David Flohr, Cedric Neumann, Scott Ryland, Donna Sirk, Tatiana Trejos, "Interpretation and report writing in forensic comparisons of paint evidence: An interlaboratory exercise," Forensic Chemistry, Volume 35 (2023); https://doi.org/10.1016/j.forc.2023.100513.

Association of Forensic Quality Assurance Managers (AFQAM) Annual Training Conference | October 17-20, 2023 | Dallas, TX

Northeastern Association of Forensic Scientists (NEAFS) Annual Meeting | Nov 6-10th |Mystic Marriott, Groton, CT

WORKSHOP: Qualifications of an Expert Witness for Legal Professionals | North Carolina State University (NCSU) and the Forensic Technology Center of Excellence (FTCOE) will host this two-part virtual workshop series to discuss topics surrounding qualifications of expert witnesses in forensic disciplines under both the Daubert and the Frye Standards.

Part II of this virtual workshop series will occur on **October 25, 2023** from 9-3 pm (lunch 12-1pm), and will focus on the Frye standard.

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.

- Standards fact sheets provide a clear, concise, and easy way to understand the purpose of a specific standard, why it is needed, and the benefits of adoption. **Standards fact sheets are available for 105+ standards on the OSAC Registry.**
- Standards checklists are a tool that forensic science service providers can use to track progress towards implementation, identify gaps or barriers to implementation, or document objective evidence of implementation or compliance with a standard. **Checklists are available for 100+ standards on the OSAC Registry.**
- Standards videos and webinars are available for free from AAFS Connect. Learn about the standards development process, standards development activities in various disciplines, and information about specific SDO published standards on the OSAC Registry.