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5 **Assurance Program in Forensic**

6 **Anthropology**

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OSAC Proposed Standard

DRAFT OSAC 2025-S-0013 Standard for a Quality Assurance Program in Forensic Anthropology

Prepared by
Forensic Anthropology Subcommittee
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The STR consists of an independent and diverse panel, which may include subject matter experts, human factors scientists, quality assurance personnel, and legal experts as applicable. The selected group is tasked with evaluating the proposed standard based on a defined list of scientific, administrative, and quality assurance based criteria.

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97 **Foreword**

98 This document was developed to provide forensic anthropology practitioners with the minimal
99 components of a quality assurance system. Currently, there is no guidance on quality assurance
100 in forensic anthropology and this document provides the foundation for practitioners. This
101 minimal approach to quality assurance creates a pathway to ensure that forensic evidence is
102 handled in an appropriate manner by qualified individuals and can be followed by all laboratories,
103 especially small laboratories performing infrequent analyses as well as sole practitioners. An
104 associated document titled *“Guidelines for Implementing a Quality Assurance Program in
105 Forensic Anthropology”* is provided to elaborate on these requirements and provide guidance on
106 how to implement them.

127 **Keywords:** *quality assurance, laboratory management, accreditation requirements*

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Standard for a Quality Assurance Program in Forensic Anthropology

1 Scope

A Quality Assurance (QA) program is necessary to ensure a consistent, trustworthy, and high-quality work product produced by a practitioner. This document specifies the minimum components of a QA program for forensic anthropology laboratories yet to be accredited. In instances where a laboratory has formal accreditation, those provisions supersede the requirements provided in this Standard.

2 Normative References

None.

3 Terms and Definitions

For the purposes of this document, the following definitions apply.

3.1 administrative review

An evaluation of the report and supporting documentation for consistency with laboratory policies and for editorial correctness.

3.2 authorized personnel

Individuals who meet the requirements needed to access the laboratory, access and/or handle evidence, perform tasks, etc.

3.3 calibration

The set of operations that establish, under specified conditions, the relationship between values indicated by a measuring instrument or measuring system, or values represented by a material, and the corresponding known values of a measurement.

3.4 case file

Compilation of all technical records, administrative material (e.g., submission, supporting, review, or tracking records), and a copy of the issued report for a specific case investigation.

3.5 competency test

Evaluation of a person's knowledge and ability to perform work before authorized to do so independently.

3.6

controlled document

A document for which all changes, approvals and distribution are recorded, and the most recent revision is recognizable.

3.7

nonconforming work

A failure to follow a laboratory standard operating procedure (SOP) or controlled document in a process, design, documentation, or procedure.

3.8

peer review

In the forensic community, refers to a technical and/or administrative review of the case file, including the report.

3.9

preventive actions

Actions taken to reduce or eliminate the opportunities for nonconforming work or unexpected/undesirable events from occurring.

3.10

proficiency test

Evaluation of participant performance against pre-established criteria by means of interlaboratory comparisons.

3.11

requesting agency

The entity that requests forensic analysis or service. Often it is a medicolegal authority (e.g., medical examiner or coroner), but may be a law enforcement agency, prosecutor, defense counsel, or other legal professional.

3.12

risk assessment

Evaluations of potential issues that could create undesirable events.

3.13

standard operating procedure (SOP)

A document which describes the regularly recurring operations in a workplace; the goal of such a document is to provide instructions for correct operations in the same manner each time they are performed.

3.14

task

Any analysis, service, or other action that requires training prior to performing it independently.
Often requires an SOP to ensure it is performed consistently.

3.15

technical review

A qualified and authorized second party's evaluation of reports, notes, data, and other documentation to ensure there is appropriate and sufficient support for actions, results, conclusions, opinions, and interpretations.

3.16

validation

A process of evaluating a system, method, or component, to determine that requirements for an intended use or application have been fulfilled.

4 Requirements

4.1 Scope of work

The forensic anthropology laboratory shall have a list of analyses performed and services offered.

4.2 Organization

4.2.1 The forensic anthropology laboratory shall have a clear and unambiguous documented internal organization and chain of command.

4.2.2 The organizational structure shall clearly identify personnel who are responsible for the technical and administrative operations of the laboratory to ensure impartiality and consistent management.

4.2.3 When changes to the management and/or organization occur, the integrity of the work shall not be negatively impacted.

4.2.4 There should be at least one person, however named, that has the responsibility for the monitoring, maintenance, and execution of this quality assurance program.

4.3 Safety

The forensic anthropology laboratory shall have a health and safety program to address personal safety while in the laboratory and at the scene.

291 **4.4** Security

292 A forensic anthropology laboratory shall have measures to ensure the security of evidence to
293 include evidence recovery, transportation, handling, and storage, as well as the security of case
294 files (electronic and hard-copy documentation).

295 **4.5** Document Control

297 The forensic anthropology laboratory shall have a system for identifying and maintaining all
298 controlled documents (e.g., SOPs, forms). At a minimum, the system shall include a list of all
299 controlled documents used by the laboratory, the history of each document's revisions and
300 approvals, and a procedure for clearly marking documents as either controlled or uncontrolled.

301 **4.6** Standard Operating Procedures (SOPs)

303 The forensic anthropology laboratory shall have written SOPs to ensure all tasks are performed
304 consistently and with high quality. Procedures and processes used to perform tasks shall be
305 clearly documented such that they can be repeated by another competent and qualified forensic
306 anthropologist.

307 Laboratories shall develop and implement SOPs for all tasks they perform. These can include:

- 308 • scene search and recovery
- 309 • evidence handling and preservation
- 310 • case file creation and management
- 311 • case documentation (including evidence inventory, bench notes, and imaging)
- 312 • specimen processing/cleaning
- 313 • laboratory analyses
- 314 • sampling for other analytical tests (e.g., histology, DNA, isotopes)
- 315 • report writing
- 316 • administrative and technical reviews
- 317 • security of evidence and documents

318 When tasks are performed at locations away from the laboratory (i.e., fieldwork), the location
319 shall be documented.

320 Steps documented in SOPs may not encompass or be appropriate for all possible casework
321 scenarios. Deviations from the SOP should be pre-approved. These deviations shall be
322 documented by the laboratory management, and, when necessary, disclosed to the requesting
323 agency prior to their occurrence.

324 **4.7** Method Development and Validation

326 The forensic anthropology laboratory shall have a written policy for developing and validating
327 new or modified methods.

328

329 **4.8 Calibration and Performance Checking**

330 The forensic anthropology laboratory shall have a policy and procedure that addresses the
331 calibration, performance, and maintenance of its instruments (e.g., calipers, mandibulometer,
332 osteometric board), equipment (e.g., digitizer, digital microscopes), and comparative materials
333 (e.g., pubic symphysis casts) used during testing that includes the interval/frequency of these
334 actions.

335
336 The laboratory shall maintain a list of equipment that requires calibration, performance checking,
337 and maintenance, including each instrument's serial number or other unique identifier, and the
338 type or name of the instrument. A log of calibration, performance checking and check results,
339 maintenance, and instrument repair shall be maintained. Instruments or equipment shall not be
340 used for casework if satisfactory calibration, performance, and maintenance cannot be achieved.

341 342 **4.9 Personnel**

343 All forensic anthropology personnel shall be qualified to perform the tasks outlined in the
344 laboratory's scope of work. The education and training of each individual authorized to perform
345 tasks shall be documented and available upon request. A list of all authorized personnel should
346 be maintained.

347 348 **4.10 Training**

349 The forensic anthropology laboratory shall identify its tasks and the relevant competencies
350 required to achieve successful performance of the stated task covered under the scope of the
351 laboratory's work. Competency requirements may include a combination of knowledge, skills,
352 and abilities evidenced through education and training. The laboratory shall identify or create a
353 training program to ensure personnel have the required knowledge, skills, and abilities to
354 perform the tasks. Training may be achieved through internal sources from qualified personnel
355 or external training via a continuing professional development program. The laboratory shall
356 maintain documentation of the training and education each authorized personnel receives to
357 include the date the education or training was completed.

358 359 **4.11 Competency and Proficiency Testing**

360 The forensic anthropology laboratory shall have a program and procedure(s) for competency
361 testing as well as external and/or internal proficiency testing that evaluates practitioners'
362 capabilities, performance, and overall laboratory practices.

363 364 **4.12 Evidence Handling**

365 Evidence shall be received and accessioned into a forensic anthropology laboratory and handled
366 within the laboratory in a manner that maintains the integrity of the evidence and protects
367 evidence against commingling, contamination, deterioration, inadvertent loss, or destruction.
368 Evidence shall be transported, secured, conserved, and stored to minimize loss, contamination,

decomposition, and other changes. The laboratory shall have a written policy addressing retention periods of evidence and records as well as final disposition of these items.

4.13 Case File

The forensic anthropology laboratory shall maintain written documentation of all activities associated with an analysis or service provided, to include communications regarding the case. The documentation should be traceable and carry the same unique identifier as that assigned to the evidence, and it should be tracked and retrievable.

4.14 Technical and Administrative Review (Peer Review)

The forensic anthropology laboratory shall have a written procedure for technical and administrative reviews of reports of analysis. The written procedure should identify the qualifications of the technical and administrative reviewer(s). The laboratory should maintain a list of personnel authorized to perform technical and administrative reviews.

4.15 Preventive and Corrective Actions

The forensic anthropology laboratory shall have a written policy and procedure to address continuous improvement which includes preventive actions and/or risk assessments and, in the event of nonconforming work, ensure that corrective actions are taken. Corrective action plans shall be proportionate to the severity of the incident. Additionally, the policy and procedure shall address a review of corrective actions, preventive actions, and risk assessments at least annually to ensure actions taken are effective and that process improvements are properly implemented.