



Standard Practice for Examining ~~And~~ Preparing Items That Are ~~Or~~ May Become Involved ~~In~~ Criminal or Civil Litigation¹

This standard is issued under the fixed designation E860; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

~~ε¹ NOTE—Editorial corrections were made to 5.4 in March 2014.~~

~~ε² NOTE—Editorial corrections were made to 5.4.2 in October 2017.~~

1. Scope

1.1 This practice ~~sets forth guidelines covers procedures~~ for the examination and testing of ~~actual~~ evidence items or systems (hereinafter termed evidence) that may have been involved in a specific incident ~~that are~~ which are, or may be reasonably expected to be, the subject of civil or criminal litigation. ~~This practice is intended to become applicable when it is determined that examination or testing of evidence is required, and such examination is likely to change the nature, state or condition of the evidence.~~

1.2 This practice ~~recommends generally acceptable professional practice, although the facts and issues of each situation may require specific considerations not expressly addressed herein. Deviations from this practice are not necessarily wrong or inferior, but such deviations should be justified and documented.~~ is applicable when it is determined that examination or testing of evidence is required, and such examination is likely to change the nature, state, or condition of the evidence.

1.3 This practice ~~offers a set of instructions for performing one or more specific operations. This document cannot replace education, training, or experience is intended for use by competent forensic science practitioners with the requisite formal education, discipline-specific training (see Practice E2917 and should be used in conjunction with professional judgment. Not all aspects of this practice may be applicable in all circumstances.), and demonstrated proficiency to perform forensic casework.~~

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

E1020 Practice for Reporting Incidents that May Involve Criminal or Civil Litigation (Withdrawn 2022)³

¹ This practice is under the jurisdiction of Committee E30 on Forensic Sciences and is the direct responsibility of Subcommittee E30.11 on Interdisciplinary Forensic Science Standards.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.

[E1188 Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator](#)
[E1413 Practice for Separation of Ignitable Liquid Residues from Fire Debris Samples by Dynamic Headspace Concentration onto an Adsorbent Tube](#)

[E1459 Guide for Physical Evidence Labeling and Related Documentation](#)

[E1492 Practice for Receiving, Documenting, Storing, and Retrieving Evidence in a Forensic Science Laboratory](#)

[E1732 Terminology Relating to Forensic Science](#)

~~[E1843](#)~~~~[E2917 Guide for Sexual Violence Investigation, Examination, and Evidence Collection Protocol](#)~~[Practice for Forensic Science Practitioner Training, Continuing Education, and Professional Development Programs](#)

~~2.2 Other Documents:~~

~~[NFPA 921 Guide for Fire and Explosion Investigations](#)~~³

3. Terminology

3.1 *Definitions*—For definitions of terms used in this practice, refer to Terminology [E1732](#).

3.2 ~~*Definitions*~~*Definitions of Terms Specific to This Standard:*

3.2.1 ~~*destructive testing*~~—~~*testing, n*~~—testing, examination, re-examination, disassembly, or other actions likely to alter the original, as-found nature, state, or condition of items of evidence so as to preclude or adversely affect additional examination and testing.

3.2.2 ~~*spoliation of evidence*~~—~~*evidence, n*~~—the loss, destruction, or material alteration of an object or document that is evidence or potential evidence in a legal proceeding by one who has the responsibility for its preservation. ~~Spoliation of evidence may occur when the movement, change or destruction of evidence, or alteration of the scene significantly impairs the opportunity of other interested parties to obtain the same evidentiary value from the evidence as did any prior investigator.~~

3.2.2.1 ~~*Discussion*~~—

~~Spoliation of evidence may occur when the movement, change, or destruction of evidence, or alteration of the scene significantly impairs the opportunity of other interested parties to obtain the same evidentiary value from the evidence as did any prior investigator.~~

4. Significance and Use

4.1 This practice establishes procedures to be followed by the forensic science practitioner to document the nature, state, or condition of items of evidence. It also describes specific actions that are required for destructive testing if planned testing, examination, disassembly, or other actions are likely to alter the nature, state, or condition of the evidence so as to preclude or adversely limit additional examination or testing.

4.2 Deviations from this practice are not necessarily wrong or inferior, but such deviations should be justified and documented.

5. Procedure

5.1 The forensic science practitioner can be the person, firm, laboratory, or agency responsible for conducting examinations or tests of the evidence should document who is responsible for documenting the nature, state, and condition of the evidence as collected or received by descriptive, photographic, or other suitable methods prior to any test, examination, re-examination, disassembly, or alteration.

5.1.1 The chain-of-custody record documents the chronological movement, location, and custodial status of physical evidence from the time it is collected through the final disposition. A break in the chain of custody can be grounds for challenging the admissibility of evidence. See Practice [E1188](#).

5.1.1.1 Each forensic science practitioner involved with evidence collection, storage, and handling of evidence documents the condition of any evidence package when collected, or received, and while in their possession (for example, sealed, not sealed, or damaged).

5.1.1.2 Every transfer of evidence between individuals and storage locations are documented by the forensic science practitioner having the custody of the evidence. The condition of all transfers are documented.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

~~5.1.2 Attempt to determine~~ When the forensic science practitioner observes any change(s), alteration(s) or contamination of the evidence subsequent to the ~~incident, and document those findings~~ incident or collection of the evidence at the scene, such observations and findings are documented.

~~5.1.3 Any changes made to the contents of the package are documented.~~

~~5.2 The forensic science practitioner, whenever feasible, leaves a sufficient quantity of the substance intact to allow independent testing or reanalysis at a later date..~~

~~5.3 It is recognized that certain characteristics cannot be determined without destructive testing. Non-destructive tests and examinations should be carried out prior to any destructive testing, and destructive testing should be kept to a minimum, and thoroughly documented. If exemplars can be used instead of the subject items, then exemplars should be used to minimize consumption of the subject item. If proposed tests, examinations, or other actions are likely to alter the nature, state, or condition of the evidence so as to preclude or limit additional examination or testing, the person, firm, or agency planning to perform the proposed action should take the following steps:~~ *Destructive Testing Considerations*

~~5.3.1 It is recognized that certain characteristics cannot be determined without destructive testing. Non-destructive tests and examinations are carried out prior to any destructive testing, and destructive testing should be kept to a minimum, and thoroughly documented. If exemplars can be used instead of the subject items, then exemplars should be used to minimize consumption of the subject item. If proposed tests, examinations, or other actions are likely to cause spoliation of evidence so as to preclude additional examination or testing, the forensic science practitioner planning to perform the proposed action should take the following steps:~~

~~5.3.2 Notify its client~~ When destructive testing will preclude additional testing of evidence (i.e., the entire sample is consumed), ~~notify the client, or current owner of the evidence, that the proposed action is likely to alter the nature, state, or condition of the evidence so as to preclude or limit additional examination or testing of the resulting in spoliation of evidence.~~

~~5.3.3 Recommend that its client~~ ~~notify other client, or current owner of the evidence, notify other known interested parties of the proposed action described in~~ testing or examination, ~~5.2~~and,

~~5.3.4 Recommend to its client~~ ~~that other client, or current owner of the evidence, that other known interested parties be given the opportunity to participate in the procedures described in~~ ~~5.25.3~~ or to witness and record any such ~~actions~~actions that may result in spoliation of evidence.

~~5.3.5 If compelling reasons exist for performing the actions without notifying other parties, then the forensic science practitioner, firm, or agency planning the actions should document in writing, and preserve documentation, supporting the compelling reasons for such action.~~

~~5.4 If compelling reasons exist for performing the actions without notifying other parties, then the person, firm or agency planning the actions should draft and preserve documentation supporting the compelling reasons for such action.~~ Forensic science practitioners working on evidence collected for criminal or civil cases should understand that there may be parties to a related potential civil or criminal case whose interests could be prejudiced if evidence is not handled in conformance with applicable standards.

~~5.3.1 In some criminal cases, notification is superfluous, or would unnecessarily impede an investigation. Suspects or criminal defendants in drug possession cases, for example, can be presumed to be on notice that seized substances will be tested. If possible, the examiner should, however, leave a sufficient quantity of the substance intact to allow independent testing.~~

~~5.3.2 Investigators or analysts working on evidence collected for criminal or civil cases should understand that there may be parties to a related potential civil or criminal case whose interests could be prejudiced if evidence is not handled properly.~~

5.5 Upon completion of testing or examination, the forensic science practitioner conducting the examination shall preserve and label each item in a manner that protects and maintains its identity and integrity of the evidence in accordance with Guide E1459.

~~5.4.1 For handling evidence related to sexual assault, follow Guide E1843.~~

5.4.2 For handling evidence related to fires, and to avoid spoliation in such cases, follow NFPA 921.

5.4.3 For documenting the chain of custody, follow Practice [E1492](#).

5.6 Discipline specific standards provide additional guidance on the handling, examination, and preservation of evidence.

6. Documentation

6.1 Document methods ~~used~~ and procedures used, and results obtained in tests, examinations, disassembly, or other actions conducted in compliance with this practice.

6.2 Document the ~~procedures used~~ evidence according to Practice [E1188](#).

6.3 Label any new items of evidence resulting from the testing according to the procedures set forth in Guide [E1459](#).

6.4 Document the chain of custody according to Practice [E1492](#).

6.5 Refer to discipline specific standards for additional documentation requirements (see [Appendix X1](#)).

7. Keywords

7.1 evidence collection and preservation; forensic engineers; science; forensic sciences standards

APPENDIX

(Nonmandatory Information)

X1. ADDITIONAL INFORMATION

X1.1 This appendix lists standards which may provide additional discipline-specific information.

X1.2 *Anthropology*:

[ANSI/ASB Standard 045, Standard for Stature Estimation in Forensic Anthropology](#)⁴

[ANSI/ASB Best Practice Recommendation 089, Best Practice Recommendation for Facial Approximation in Forensic Anthropology](#)⁴

[ANSI/ASB Standard 090, Standard for Sex Estimation in Forensic Anthropology](#)⁴

X1.3 *Digital and Multimedia*:

[E2825 Guide for Forensic Digital Image Processing](#)²

[E3017 Practice for Examining Magnetic Card Readers](#)²

[E3115 Guide for Capturing Facial Images for Use with Facial Recognition Systems](#)²

[E3148 Guide for Postmortem Facial Image Capture](#)²

[E3149 Guide for Facial Image Comparison Feature List for Morphological Analysis](#)²

X1.4 *DNA*:

[FBI Quality Assurance Standards for Forensic DNA Testing Laboratories](#)⁵

⁵ Available from the Federal Bureau of Investigation (FBI), <https://archives.fbi.gov>.