



Standard Practice for Record Keeping and Record Preservation for Lead Hazard Activities¹

This standard is issued under the fixed designation E2239; 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.

1. Scope

1.1 This practice describes requirements for preservation of records generated during lead hazard activities.

1.2 *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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

[D4840 Guide for Sample Chain-of-Custody Procedures](#)

[E1579 Guide for Ensuring Data Integrity in Highly Computerized Laboratory Operations](#) (Withdrawn 2002)³

[E1605 Terminology Relating to Lead in Buildings](#)

[E1864 Practice for Evaluating Quality Systems of Organizations Conducting Facility and Hazard Assessments for Lead in Paint, Dust, Airborne Particulate, and Soil in and around Buildings and Related Structures](#) (Withdrawn 2011)³

2.2 *ISO Standards:*⁴

[ISO 9000-3 Quality Management and Quality Assurance Standards—Part 3: Guidelines for the Application of ISO 9001:1994 to the Development, Supply, Installation and Maintenance of Computer Software](#)

[ISO 9000:2005 Quality Management Systems—Fundamentals and Vocabulary](#)

[ISO 17000:2004 Conformity Assessment—General Vocabulary and Principles](#)

¹ This practice is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.23 on Lead Hazards Associated with Buildings.

Current edition approved Oct. 1, 2016. Published October 2016. Originally approved in 2002. Last previous edition approved in 2012 as E2239–12. DOI: 10.1520/E2239-12R16.

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.

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

3. Terminology

3.1 *Definitions:*

3.1.1 For definitions of terms not appearing here, refer to Terminology E1605.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *competence, n*—(1) demonstrated ability to apply knowledge and skills. **ISO 9000:2005 (3.1.6)**

(2) *specifically as applied to auditors*, demonstrated personal attributes and demonstrated ability to apply knowledge and skills. **ISO 9000:2005 (3.9.14)**

3.2.2 *conformity, n*—fulfillment of a requirement. **ISO 9000:2005 (3.6.1)**

3.2.3 *inspection, n*—examination of a product design, product (3.3), process, or installation and determination of its conformity with specific requirements or, on the basis of professional judgement, with general requirements. **ISO 17000:2004**

3.2.4 *nonconformity, n*—non-fulfillment of a requirement. **ISO 9000:2005 (3.1.2)**

3.2.5 *observation, n*—a judgment that is based on what one sees while conducting lead hazard activities and that is substantiated by objective evidence.

3.2.6 *objective evidence, n*—data supporting the existence or verity of something. **ISO 9000:2005 (3.8.1)**

3.2.6.1 *Discussion*—Objective evidence may be obtained through observation, measurement, test, or other means.

3.2.7 *procedure, n*—specified way to carry out an activity or process. **ISO 9000:2005 (3.4.5)**

3.2.7.1 *Discussion*—In many cases, procedures are documented (for example, quality system procedures). When a procedure is documented, the term “written procedure” or “documented procedure” is frequently used. A written or documented procedure usually contains the purposes and scope of an activity; what shall be done and by whom; when, where and how it shall be done; what materials, equipment and how documents shall be used; and how it shall be controlled and recorded.

3.2.8 *record, n*—a document stating results achieved or providing evidence of activities performed. **ISO 9000:2005 (3.7.6)**

3.2.9 *requirement, n*—need or expectation that is stated, generally implied or obligatory. **ISO 9000:2005 (3.1.2)**

4. Significance and Use

4.1 This practice is intended to help reduce risks associated with lead hazards in buildings by providing standardized requirements for preserving records, findings, and recommendations associated with lead hazard activities.

4.2 This practice is intended for use by individuals and organizations that develop and have need to preserve objective evidence when contracting for or when conducting lead hazard activities themselves.

4.2.1 This practice is intended to assist in complying with management system requirements for record keeping as defined in Practice **E1864**, as well as record keeping regulatory requirements promulgated by authorities having jurisdiction regarding conduct of lead hazard activities.

5. Records

5.1 *General Requirements:*

5.1.1 Records of original observations, evidence of conformity or nonconformity to requirements, and derived data shall contain sufficient information to provide traceability and to enable an individual having competence with lead hazard activities to reach the same conclusion(s).

5.1.2 Observations, data, and calculations shall be recorded at the time they are made and shall be identifiable to the specific task.

5.1.2.1 In cases where written records are damaged and unusable (that is, crumpled or torn), a legible re-created record, where possible, shall be prepared and attached to the original damaged record.

NOTE 1—For additional information on the subject of data integrity, see Guide **E1579**.

5.1.3 Records shall contain the identity of the personnel generating them.

5.1.4 Records are permitted to be in any media, such as hard copy or electronic.

5.1.5 As a minimum, records shall be preserved consistent with requirements of regulatory authorities having jurisdiction.

5.2 *Summary List of Records:*

5.2.1 A list of all records shall be prepared to serve as an index of all individual records for a specific lead hazard activity.

5.2.2 This list shall summarize the identity of each record, the type of record, and where the records are stored.

5.3 *Record Types*—A wide variety of record types may be used to record lead hazard activities including log books, notebooks, pre-printed data forms, chain-of-custody forms, graphs and drawings, photographs, lead-hazard activity reports, test reports, and electronic media. Specific requirements (additional to those given in Sections 5 and 6) for these record types are described as follows:

5.3.1 *Log Books and Notebooks:*

5.3.1.1 Log books and notebooks shall be bound with pre-numbered pages.

5.3.1.2 All entries shall be made using water insoluble ink.

5.3.1.3 Entries shall be signed or initialed, and dated each workday by the personnel generating the entries and by the reviewer, where possible.

5.3.2 *Pre-printed Data Forms:*

5.3.2.1 Data forms, either ASTM forms or equivalent, shall be defined in terms of the associated ASTM standard.

5.3.2.2 All entries shall be made using water insoluble ink.

5.3.2.3 Data forms shall be signed or initialed, and dated each workday by the person(s) generating the forms and the reviewer, where possible.

5.3.2.4 Data forms shall be numbered in a “page of page” format for each activity.

5.3.3 *Graphs and Drawings:*

5.3.3.1 Graphs and drawing shall be labeled so that a person with competence in performing lead hazard activities and unfamiliar with their generation can decipher them.

5.3.4 *Chain-of-Custody Forms:*

5.3.4.1 Chain of custody forms (see Guide **D4840**) shall be completed and labeled with the lead hazard activity (name, address, and other appropriate information).

5.3.5 *Photographs:*

5.3.5.1 Records shall be created and traceable to both the photograph and to the lead hazard activity (for example, name, address, and other appropriate information), the name of the person taking the photograph, and the date taken.

NOTE 2—Photographs may be taken using film or digital means (see **5.3.8**).

5.3.6 *Lead Hazard Activity Reports:*

5.3.6.1 Each lead hazard activity report shall be maintained in either hard copy or electronic copy, as appropriate.

5.3.7 *Test Reports:*

5.3.7.1 Each test report shall be approved, dated and signed by an authorized person to attest to the correctness of the results.

5.3.7.2 Test data records shall include calibration and traceability verification checks.

5.3.8 *Electronic Media*—These media include electronic data such as audio, computer, digital pictures, and videotape.

5.3.8.1 Electronic records shall include reference to the specific lead hazard activity (for example, name, address, and other appropriate information).

5.3.8.2 Consideration of the retention times and accessibility of the electronic records shall take into account the rate of degradation of the electronic images and the availability of the devices and software needed to access the records.

5.4 *Corrections to Records:*

5.4.1 *Hard Copy Records*—When mistakes occur in hard copy records of lead hazard activities, the correction procedures in **5.4.1.1 – 5.4.1.4** shall be followed:

5.4.1.1 Do not erase, make illegible (for example, no white out or other obliteration of the original entry is to be permitted), or delete the entry.

5.4.1.2 Cross out each mistake with a single line and enter the correct entry alongside the each original entry corrected.

5.4.1.3 Accompany correction(s) with the initials of the person making the change(s), the date the correction was made and, if appropriate, reason(s) for the correction.

5.4.1.4 Maintain a completed signature and initial form for each lead hazard activity recorder as part of the record.

5.4.2 *Electronic Media*—When mistakes occur in electronic records of lead hazard activities, the correction procedures in 5.4.2.1 – 5.4.2.3 shall be followed:

5.4.2.1 Measures equivalent to those in 5.4.1 for hard copy records shall be taken to avoid loss or unauthorized change of original data.

5.4.2.2 At a minimum, make an electronic entry to describe changes that were made in the record in a corresponding file or place with the data file. Include an electronic signature and date(s) that changes were made.

NOTE 3—Computer software is available to assist with the insertion of electronic signatures.

5.4.2.3 For changes that affect the summary list of records, make appropriate changes in the data log, following the rules for changes in hard copy records above.

6. Record Retention

6.1 General:

6.1.1 Organization(s) conducting lead hazard activities shall establish and maintain procedures for identification, collection, indexing, access, filing, storage, maintenance and disposal of lead hazard activity records.

6.1.2 As a minimum, records of original observations, derived data and sufficient information to establish an audit trail, calibration records (if appropriate), staff records, and a copy of each report issued shall be retained for a defined period of time.

6.1.3 Unless otherwise determined, the firm or individual responsible for preparing the records shall be responsible for their retention.

6.1.4 Record retention periods for lead hazard activities shall be established based on applicable regulatory requirements, contract requirements, or on the advice of legal counsel.

6.1.4.1 If not otherwise determined, retain records for a period not less than three years.

6.1.5 Records shall be “permanent,” that is, they shall last at least for the specified retention period.

NOTE 4—The property/facility owner or designated party and the laboratory should also keep a complete copy of all records associated with the lead hazard activities that were performed.

6.2 Record Archiving and Control:

6.2.1 Lead hazard activity records are to be legible, controlled, and retained so that they are readily retrievable, in facilities that provide a suitable environment to prevent damage or deterioration and to prevent loss.

6.2.2 Procedures shall be in place to protect and backup records stored electronically and to prevent unauthorized access to or amendment of these records.

6.3 Confidentiality of Records:

6.3.1 All records shall be held secure and in confidence to the client.

7. Keywords

7.1 buildings; hazard; lead; management; record keeping; record preservation

ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org). Permission rights to photocopy the standard may also be secured from the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, Tel: (978) 646-2600; http://www.copyright.com/