



Designation: **E2239–12 (Reapproved 2016) E2239 – 20**

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

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

1.3 *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

[D1356 Terminology Relating to Sampling and Analysis of Atmospheres](#)

[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[E1579 Guide for Ensuring Data Integrity in Highly Computerized Laboratory Operations \(Withdrawn 2002\)](#)³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Assessments for Lead in Paint, Dust, Airborne Particulate, and Soil in and around Buildings and Related Structures \(Withdrawn 2011\)](#)³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:*³

[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](#)

3. Terminology

3.1 *Definitions:*

3.1.1 For definitions of terms not appearing here, refer to [Terminologies D1356](#) and [E1605](#).

3.2 *Definitions of Terms Specific to This Standard:*

¹ This practice is under the jurisdiction of ASTM Committee D22 on Air Quality and is the direct responsibility of Subcommittee D22.12 on Sampling and Analysis; Analysis of Lead; Lead for Exposure and Risk Assessment.

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

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)~~, ~~product~~, 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 at minimum the ~~identity~~names 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~~ numbered to ensure that a report of data is complete with no pages missing. This may include a “page of page” format for each activity format, or by stating on the first page the total number of pages in the report, or by alternative pagination methodologies as long as it is ensured that the report is complete with no pages missing.

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:*