



Standard Guide for Development of Fire-Hazard-Assessment Standards¹

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1. Scope

1.1 This guide covers the development of fire-hazard-assessment standards.

1.2 This guide is directed toward development of standards that will provide procedures for assessing fire hazards harmful to people, animals, or property.

2. Referenced Documents

2.1 *ASTM Standards:*

E 176 Terminology of Fire Standards²

E 603 Guide for Room Fire Experiments²

2.2 *Other ASTM Document:*

Form and Style for ASTM Standards³

2.3 *National Fire Protection Association:*

NFPA 901 Uniform Coding for Fire Protection⁴

3. Terminology

3.1 *Definitions*—See Terminology E 176. Terms used for developing this standard are shown in Appendix X1. When revisions are finalized in Terminology E 176, the revised terms will be included in this guide.

4. Significance and Use

4.1 This guide is intended for use by those undertaking the development of fire-hazard-assessment standards. Such standards are expected to be useful to manufacturers, architects, specification writers, and authorities having jurisdiction.

4.2 As a guide, this document provides information on an approach to the development of a fire hazard standard; fixed procedures are not established. Limitations of data, available tests and models, and scientific knowledge may constitute significant constraints on the fire-hazard-assessment procedure.

4.3 While the focus of this guide is on developing firehazard-assessment standards for products, the general concepts presented also may apply to processes, activities, occupancies, and buildings.

5. Key Elements

5.1 This guide uses as its key elements the following:

5.1.1 The purpose of a fire-hazard-assessment standard is to provide a standardized procedure for assembling a compilation of information relevant to the fire hazard of a product under specific conditions of use.

5.1.2 The information assembled should be relevant to the purpose of assessing the fire hazard of the specific designated product within the range of designated fire scenarios.

5.1.3 The information assembled should be explicit and quantitative and should provide a sufficiently thorough examination of the product's fire hazard under the conditions defined by the scope of the specific standard, so as to permit valid choices and decisions with respect to the fire hazard of that product.

5.1.4 A persuasive scientific case must be made in the documentation of a specific fire-hazard-assessment standard that the procedures, data, and hazard measures specified by the standard will address questions about a product's fire hazard with sufficient accuracy and validity that a more thorough assessment procedure would not materially alter any decisions that might be made based on the standard. If such a case cannot be made for all products to be addressed, then the hazard assessment should specify those conditions under which a more thorough fire-hazard-assessment procedure should be used.

5.1.5 The absence of a data source, test method, or calculation procedure of sufficient scope and proven validity to support the needs of a particular fire-hazard-assessment procedure may not be a sufficient reason to use a data source, test method, or calculation procedure of lesser scope or unproven validity. It is recognized that fire-hazard assessments of such products may need to be performed in any event, using relevant nonstandardized procedures. When such nonstandardized or invalidated procedures are used, the details shall be included to such an extent that the procedures become standardized for use within the specified hazard assessment method through final publication of the hazard-assessment document.

5.1.6 Among the significant outcomes of a fire-hazard assessment would be the revelation that a product produces either an increase, no increase, or a decrease in fire hazard on some or all hazard measures and for all or part of the scenarios specified by the standard, relative to another product or relative to baseline hazard values for those measures and scenarios.

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² *Annual Book of ASTM Standards*, Vol 04.07.

³ Available from ASTM, 1916 Race St., Philadelphia, PA 19103.

⁴ Available from NFPA, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.