

Designation: E3038 - 16

# Standard Practice for Assessing and Qualifying Candidates as Inspectors of Firestop Systems and Fire-Resistive Joint Systems<sup>1</sup>

This standard is issued under the fixed designation E3038; 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  $(\varepsilon)$  indicates an editorial change since the last revision or reapproval.

#### 1. Scope

1.1 This Practice is intended to assist an authority having jurisdiction (AHJ) or authorizing authority (AA), or both, in establishing minimum qualifications for candidates who desire to conduct inspections in compliance with Practices E2174 and E2393.

Note 1—Authority having jurisdiction (AHJ) is defined in Practices E2174 and E2393.

Note 2—Authorizing authority (AA) is defined in Practices E2174 and E2393. Examples of the AA include, but are not limited to, the responsible architect, engineer, building owner, or their representative.

- 1.2 This Practice makes available a procedure for a candidate to provide evidence to the AHJ or AA, or both, of their specialized knowledge and technical competence related to the firestop industry.
- 1.3 This Practice determines the technical proficiency of a candidate based upon a minimum amount of education, experience, and knowledge possessed, which is needed to ensure competence to conduct inspections in compliance with Practices E2174 and E2393.
- 1.4 The purpose of this Practice is to allow the AHJ or AA, or both, to assess the ability of the candidate to comprehend and use inspection documents to conduct inspections in compliance with Practices E2174 and E2393.

Note 3—Inspection document is defined in Practices E2174 and E2393. The firestop submittal, when approved for use, should have sufficient details, including, but not limited to, the firestop manufacturer's product data, a design listing of the tested firestop, and when required a judgment (Alternative Means and Methods). The judgment is commonly referred to as an "Engineering Judgment" in the firestop industry. These judgments are not always issued by an engineer or a registered design professional.

1.5 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.

1.6 The text of this standard references notes and footnotes that provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

#### 2. Referenced Documents

2.1 ASTM Standards:<sup>2</sup>

E176 Terminology of Fire Standards

E631 Terminology of Building Constructions

E699 Specification for Agencies Involved in Testing, Quality Assurance, and Evaluating of Manufactured Building Components

E814 Test Method for Fire Tests of Penetration Firestop Systems

E1966 Test Method for Fire-Resistive Joint Systems

E2032 Guide for Extension of Data From Fire Resistance Tests Conducted in Accordance with ASTM E 119

E2174 Practice for On-Site Inspection of Installed Firestops E2307 Test Method for Determining Fire Resistance of Perimeter Fire Barriers Using Intermediate-Scale, Multistory Test Apparatus

E2393 Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers

E2750 Guide for Extension of Data from Penetration Firestop System Tests Conducted in Accordance with ASTM

E2837 Test Method for Determining the Fire Resistance of Continuity Head-of-Wall Joint Systems Installed Between Rated Wall Assemblies and Nonrated Horizontal Assemblies

2.2 ISO Standards:<sup>3</sup>

ISO/IEC 17020 Conformity assessment—Requirements for the operation of various types of bodies performing inspection

<sup>&</sup>lt;sup>1</sup> This practice is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.21 on Serviceability.

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<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> Available from International Organization for Standardization (ISO), ISO Central Secretariat, BIBC II, Chemin de Blandonnet 8, CP 401, 1214 Vernier, Geneva, Switzerland, http://www.iso.org.

ISO/IEC 17065 Conformity assessment—Requirements for bodies certifying products, processes and services

ISO 10295-1 Fire tests for building elements and components—Fire testing of service installations—Part 1: Penetration seals

ISO 10295-2 Fire tests for building elements and components—Fire testing of service installations—Part 2: Linear joint (gap) seals

ISO/DTR 12470-1 Fire-resistance tests—Guidance on the application and extension of results—Part 1: Loadbearing elements and vertical and horizontal separating elements

2.3 UL Standards:<sup>4</sup>

 UL 1479 Standard for Fire Tests of Penetration Firestops
UL 2079 Standard for Tests for Fire Resistance of Building Joint Systems

2.4 Other Documents:

FCIA Firestop Manual of Practice<sup>5</sup>

FM 4991 Approval Standard for Firestop Contractors Class Number 4991<sup>6</sup>

IAS Accreditation Criteria for Special Inspection Agencies (AC 291)<sup>7</sup>

IFC<sup>8</sup> Firestop Inspection Manual<sup>9</sup>

IFC Guidelines for Engineering Judgments<sup>10</sup> International Building Code <sup>11</sup>

## 3. Terminology

- 3.1 *Definitions*—Terms defined in Terminology E631, Terminology E176, and Practice E699 will prevail for terms not defined in this Practice. Terminology E631 definitions shall apply when there is a conflict between Terminology E176, Practice E699, and Terminology E631 definitions.
  - 3.2 Definitions of Terms Specific to This Standard:
- 3.2.1 *candidate*, *n*—the individual or company seeking the designation and recognition as a firestop industry inspector.
- 3.2.2 *firestop industry*, *n*—the field of work related to firestop systems and fire-resistive joint systems.
- 3.2.2.1 *Discussion*—Fire-resistive joint systems are well known as described in Test Method E1966. However, Test Methods E2307 and E2837 also address specific types of fire-resistive joint systems called perimeter joint protections (also known as perimeter fire barriers), and continuity head-of-wall joint systems, respectively.
- 3.2.3 *firestop industry inspector, n*—the individual or company possessing the credentials set forth in this Practice, and

<sup>4</sup> Available from Underwriters Laboratories (UL), Corporate Progress, 333 Pfingsten Rd., Northbrook, IL 60062, http://www.ul.com.

who is authorized by the AHJ or AA, or both, to conduct an inspection under Practices E2174 and E2393, or both.

## 4. Summary of Practice

- 4.1 This Practice sets forth the minimum qualifications required to be eligible as a candidate to conduct inspections under Practices E2174 and E2393.
- 4.2 This Practice sets forth the information that needs to be documented by the candidate and a procedure to submit that information directly or indirectly to the AHJ or AA, or both.

# 5. Significance and Use

- 5.1 This Practice is intended to provide a means for the AHJ or AA, or both, to verify evidence of a candidate's experience, knowledge, and qualifications.
- 5.2 This Practice is not intended to set forth individual credentials for an AHJ or AA, or both.
- 5.3 This Practice is not intended to establish any performance criteria of firestop systems or fire-resistive joint systems.

Note 4—The performance criteria of a firestop system or fire-resistive joint system is found in many national and international test methods. Some of these methods include, but are not limited to, Test Method E814, UL 1479, ISO 10295-1, Test Method E1966, UL 2079, ISO 10295-2, Test Method E2307, Test Method E2837, etc.

#### 6. Procedure

- 6.1 The candidate shall be acceptable to the AHJ or AA, or both. The candidate shall meet at least one requirement in 6.2, Prerequisites, and all of the requirements contained in 6.3, Inspector Qualifications.
- 6.2 *Prerequisites*—The candidate shall meet and provide documentation for at least one of the following requirements, which is acceptable to the AHJ or AA, or both:
- 6.2.1 Have a minimum of two-years' experience in building construction within the firestop industry conducting inspections under the direction of an inspector; or
- 6.2.2 Have a minimum of two years of experience in the firestop industry conducting quality control; or

Note 5—Some methods used to assess quality control entities and systems include, but are not limited to: Practice E699 that provides a means for evaluating agencies conducting quality control; ISO/IEC 17065 that affords a method to accredit organizations that oversee quality control processes; ISO/IEC 17020 used to establish bodies performing inspection, etc.

6.2.3 Have a minimum four years of full-time (or at least 6160 h) experience in the selection or installation, or both, of firestop systems or fire-resistive joint systems, or both; or

Note 6—"Full-time" is considered "working the full number of hours considered normal or standard." One can reasonably estimate that there are  $\approx\!250$  working days per year.  $^{13}$  The number of working days less a maximum of 30 days for allotted "days off," which is commonly referred to as vacation and sick time, provides 220 working days per year. A typical

<sup>&</sup>lt;sup>5</sup> Available from Firestop Contractors International Association, 4415 W. Harrison Street, Suite 436, Hillside, IL 60162, http://www.fcia.org/articles/mop.htm.

 $<sup>^6\,\</sup>mathrm{Available}$  from FM Global, 270 Central Ave., Johnston, RI 02919-4949, http://www.fmapprovals.com/approval-standards.

<sup>&</sup>lt;sup>7</sup> Available from International Accreditation Services, 3060 Saturn Street, Suite 100, Brea, CA, 92821-1732, http://www.iasonline.org/Accreditation\_Criteria.

<sup>&</sup>lt;sup>8</sup> International Firestop Council, 2660 S. Utica Ave., Tulsa, OK 74114

<sup>&</sup>lt;sup>9</sup> Available from http://www.firestop.org/inspection-guidelines.html.

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<sup>&</sup>lt;sup>11</sup> International Building Code is a registered trademark of and available from International Code Council (ICC), Inc., 500 New Jersey Ave., NW, 6th Floor, Washington, DC 20001-2070, http://www.iccsafe.org.

<sup>&</sup>lt;sup>12</sup> See http://www.merriam-webster.com/dictionary/full-time.

<sup>&</sup>lt;sup>13</sup> See http://www.workingdays.us/workingdays\_holidays\_2016.htm.