



## Second Revision No. 1-NFPA 80-2014 [ Section No. 2.3.2 ]

### 2.3.2 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM A36/A36M, *Standard Specification for Carbon Structural Steel*, ASTM A36/A36M-082012.

ASTM D4157, *Standard Test Method for Abrasion Resistance of Textile Fabrics (Oscillatory Cylinder Method)*, 20102013.

ASTM D5034, *Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)*, 2009 (2013).

ASTM D6193, *Standard Practice for Stitches and Seams*, 2011.

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials*, 2012a.

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**Submittal Date:** Tue Sep 30 13:11:34 EDT 2014

### Committee Statement

**Committee Statement:** Reference standards updates.

**Response Message:**

[Public Comment No. 30-NFPA 80-2014 \[Section No. 2.3.2\]](#)

[Public Comment No. 34-NFPA 80-2014 \[Section No. 2.3.2\]](#)



## Second Revision No. 2-NFPA 80-2014 [ Section No. 2.3.6 ]

### 2.3.6 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

ANSI/UL 9, *Standard for Fire Tests of Window Assemblies*, 2009, revised 2009.

ANSI/UL 10A, *Standard for Tin-Clad Fire Doors*, 2009, revised 2009.

ANSI/UL 10D, *Fire Tests for Fire Protective Curtains*, 2009/2014.

ANSI/UL 14C, *Swing Hardware for Tin-Clad Fire Doors Mounted Singly and in Pairs*, 2006, revised 2013.

ANSI/UL 33, *Standard for Heat Responsive Links for Fire-Protection Services*, revised 2010.

ANSI/UL 263, *Standard for Fire Tests of Building Construction and Materials*, 2011.

ANSI/UL 555, *Standard for Fire Dampers*, 2006, revised 2013.

ANSI/UL 864, *Standard for Control Units and Accessories for Fire Alarm Systems*, 2003, revised 2013.

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**Submittal Date:** Tue Sep 30 13:20:12 EDT 2014

## Committee Statement

**Committee Statement:** Referenced standards update.

**Response Message:**

**Second Revision No. 8-NFPA 80-2014 [ New Section after 3.3.57 ]****3.3.58** Fire Protective Curtain Assembly.

An assembly typically consisting of a fabric curtain, a bottom bar, guides, a coil, and an operating and closing system.

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**Submittal Date:** Mon Oct 06 12:08:16 EDT 2014

**Committee Statement**

**Committee Statement:** The definition is a result of the work of a task group that was established during the First Draft meeting to further explore and evaluate the necessary requirements for fire and smoke curtains. The language is an expansion of the work completed at the First Draft meeting and is in response to the developed committee inputs. The task group worked together to develop requirements that address the installation, inspection, and testing of these fire and smoke curtain products.

**Response Message:**

**Second Revision No. 4-NFPA 80-2014 [ Section No. 3.3.110 ]****3.3.111 Sill.**

TheA structural component of the building that forms the bottom part of an opening over which a fire door closes.

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**Submittal Date:** Tue Sep 30 13:38:44 EDT 2014

**Committee Statement**

**Committee Statement:** Change further clarifies the definition of sill, which was added in the 2013 edition.

**Response Message:**

[Public Comment No. 39-NFPA 80-2014 \[Section No. 3.3.110\]](#)

**Second Revision No. 5-NFPA 80-2014 [ New Section after 3.3.125 ]****3.3.127** Threshold.

A builders hardware component that is installed beneath a closed door.

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**Submitter Full Name:** [ Not Specified ]

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**Submittal Date:** Tue Sep 30 13:47:16 EDT 2014

**Committee Statement**

**Committee Statement:** The term "threshold" is used in several places in the standard and the definition clarifies its use. The committee had proposed, via a Committee Input during the First Draft stage, to add the term "thresholds" to the title of Section 4.8.2. It was decided to not make this change, but to add a definition in Chapter 3 to clarify the intent of the term "threshold" throughout the document.

**Response****Message:**

[Public Comment No. 38-NFPA 80-2014 \[New Section after 3.3.125\]](#)

**Second Revision No. 16-NFPA 80-2014 [ Section No. 4.3.4 ]****4.3.4**

The label described in 4.3.3 shall address the reinforcements necessary for the fire exit devices hardware, and the complete fire door assembly shall have been tested for egress panic load requirements.

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**Submittal Date:** Mon Oct 06 14:57:33 EDT 2014

**Committee Statement**

**Committee Statement:** The language in this section incorrectly referred to 'exit devices' when the correct terminology, as stated in Section 4.3.3, is 'fire exit hardware.'  
**Response Message:**



## Second Revision No. 18-NFPA 80-2014 [ Section No. 4.8.6 ]

### 4.8.6\*

Where permitted by the individual door assembly listing, expansion anchors used in concrete, brick, or filled concrete masonry unit walls shall meet the following conditions:

- (1) Expansion anchors shall be manufactured from steel and shall be zinc-coated or cadmium-coated.
- (2) Expansion anchors shall conform to Federal Specification A-A-1923A, *Shield Expansion (Lag, Machine and Externally Threaded Wedge)*; A-A-1924A, *Shield, Expansion (Self Drilling Tubular Expansion Shell Bolt)*; or A-A-55614, *Shield, Expansion (Non-Drilling Expansion Anchors)*.
- (3) The compressive strength of the concrete shall not be less than 2000 psi (13,790 kPa), and the bolt load shall not exceed  $\frac{1}{4}$  of the proof test load.
- (4) Where used in brick or filled concrete masonry unit walls, the bolt load shall not exceed  $\frac{1}{12}$  of the proof test load.
- (5) No expansion anchor shall be set closer toThe distance from the edge of the wall opening than 6 times the diameter of the anchor or closer to another anchor than 8to the center of an expansion anchor shall be at least six times the diameter of the anchor. The distance between expansion anchors shall be at least eight times the diameter of the anchor.

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**Submittal Date:** Mon Oct 06 15:02:43 EDT 2014

### Committee Statement

**Committee Statement:** Editorial correction. The current language was missing words was not clear.  
**Response Message:**



## Second Revision No. 15-NFPA 80-2014 [ Section No. 5.5.7 ]

### 5.5.7

When fastener holes are left in a door or frame due to changes or removal of hardware or plant-ons, the holes shall be repaired by the following methods:

- (1) Install steel fasteners that completely fill the holes.
- (2) Fill the screw or bolt holes with the same material as the door or frame.
- (3) Fill holes with material listed for this use and installed in accordance with the manufacturer's procedures.

### 5.5.8

Holes, other than those as described by 5.5.7, shall be treated as a field modification in accordance with 5.1.4.

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**Submittal Date:** Mon Oct 06 14:52:25 EDT 2014

## Committee Statement

**Committee Statement:** The changes to this section were proposed at the First Draft stage via a committee input. There are currently products available that are listed for repairing holes in fire doors. The revised language allows for these listed products. The intent of Section 5.5.7 was originally to apply to fastener holes. However, as written, the section could have applied to all holes, of all shapes and sizes, in a fire door. Revisions clarify the intent of the section.

**Response Message:**





## Second Revision No. 26-NFPA 80-2014 [ Section No. 6.3.1.7 ]

### 6.3.1.7\* Clearances.

#### 6.3.1.7.1\*

The clearances between the top and vertical edges of the door and the frame and between the meeting edges of doors swinging in pairs shall be  $\frac{1}{8}$  in.  $\pm$   $\frac{1}{16}$  in. (3.18 mm  $\pm$  1.59 mm). Clearances dimensions between doors and frames and meeting stiles of paired doors shall be measured on the pull side of the assemblies.

#### 6.3.1.7.2\*

Clearances shall be measured from the pull face of the door(s). The clearances between the top and vertical edges of the doorhollow metal doors and the frame, and between the meeting edges/stiles of doors swinging in pairs, shall be  $\frac{1}{8}$  in.  $\pm$   $\frac{1}{16}$  in. (3.18 mm  $\pm$  1.59 mm).

#### 6.3.1.7.3

High-pressure decorative laminate (HPDL)-faced doors,  $\frac{1}{3}$ -hour-rated flush wood doors, and stile and rail wood doors installed in hollow metal door frames shall not have clearances greater than  $\frac{1}{8}$  in.  $\pm$   $\frac{1}{16}$  in. (3.18 mm  $\pm$  1.59 mm) between the door and frame and the meeting stiles of paired doors.

#### 6.3.1.7.4\*

HPDL-faced doors, flush wood doors, and stile and rail wood doors with fire ratings greater than  $\frac{1}{3}$  hour shall not have clearances greater than  $\frac{1}{8}$  in. (3.18 mm) between the door and frame, regardless of the door frame construction, and the meeting stiles of paired doors.

#### 6.3.1.7.5\*

Door leaves constructed of other materials shall not have clearances greater than  $\frac{1}{8}$  in. (3.18 mm) between the top and vertical edges of doors and meeting stiles of paired doors, unless otherwise permitted in the door frame, door, and latching hardware manufacturers' published listings.

## Supplemental Information

<u>File Name</u>	<u>Description</u>
80_SR_26_Annex_A.docx	
80_SR_26_Fig._A.6.3.1.7.4.png	
80_SR_26_Fig._A.6.3.1.7.png	

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**Submittal Date:** Mon Oct 06 15:57:47 EDT 2014

## Committee Statement

**Committee Statement:** The second revision requirements resolves issues that were created by the first revision change, which removed the 1/8-inch maximum clearance for wood fire doors and allowed an additional 1/16-inch clearance. The first revision language does not reference any type of door or door frame construction, allowing the additional clearance for all types of swinging fire doors with builders hardware. There are significant dimensional and design differences between labeled door frames that are constructed of different materials (e.g., hollow metal, press steel, wood, composite, fiberglass reinforced polyester, and aluminum), which might not perform as needed under fire test, or actual fire, conditions. Accordingly, the second revision clarifies the different types of door frame construction and establishes the maximum clearance dimensions for each type door assembly.

The change made during the First Draft stage was predicated on receiving technical justification from actual fire door testing that supported allowing an additional 1/16-inch clearance for wood fire doors; that testing did not take place during this revision cycle. When and if that testing takes place, provided it proves the additional clearance is acceptable, the committee may seek to issue a change to the document in the form of a tentative interim amendment (TIA) or as a change to the 2019 edition of NFPA 80.

**Response Message:**

**Second Revision No. 7-NFPA 80-2014 [ New Section after 6.4.8 ]****6.4.9** Thresholds.

When used, thresholds shall be noncombustible or listed.

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**Submittal Date:** Tue Sep 30 19:21:55 EDT 2014

**Committee Statement**

**Committee Statement:** With the addition and clarification of the definitions of sills and thresholds, limitations on the use of thresholds for swinging doors need to be added.

**Response Message:**

**Second Revision No. 20-NFPA 80-2014 [ Section No. 17.1.2.1 ]****17.1.2.1**

Fire windows shall be tested in accordance with NFPA 257 and/or ANSI/UL 9, *Standard for Fire Tests of Window Assemblies*, for the required fire protection rating of the window opening.

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**Committee Statement**

**Committee Statement:** Editorial clarification. Windows are tested to either NFPA 257 or UL 9, not both.  
**Response Message:**

**Second Revision No. 13-NFPA 80-2014 [ Section No. 19.5 ]****19.5\*** Periodic Testing.**19.5.1** Testing Frequency.

Each damper shall be tested and inspected 1 year after acceptance testing.

**19.5.1.1**

The test and inspection frequency shall then be every 4 years, except in buildings containing a hospital, where the frequency shall be every 6 years. Each damper shall be tested and inspected 1 year after acceptance testing.

**19.5.1.2**

The test and inspection frequency shall then be every 4 years, except in buildings containing a hospital, where the frequency shall be every 6 years.

**19.5.2** Periodic Testing for Fusible Link–Operated Dampers Test Method.**19.5.2.1**

For other than dynamic fire dampers, the fan shall be in the off position during testing. All tests shall be completed in a safe manner by personnel wearing personal protective equipment.

**19.5.2.2\*** Periodic Testing for Fusible Link Operated Dampers.

The fusible link shall be removed with the damper in the full-open position.

**19.5.2.2.1**

Fusible links or other moveable parts shall not be painted or coated, unless listed by the testing agency.

**19.5.2.2.2**

The fan shall be permitted to be shut off during testing.

**19.5.2.2.3\***

The fusible link shall be removed or activated with the damper in the fully open position.

**19.5.2.2.4**

With the fusible link removed or activated, the damper shall close completely without assistance.

**19.5.2.2.5**

Where the damper is designed with a latch to hold the damper in the fully closed position, the operation of the latch shall be confirmed.

**19.5.2.2.6**

At the completion of the test, the damper shall be returned to the fully open position, and the fusible link shall be reinstalled or replaced.

**19.5.2.2.7**

If the link appears damaged, it shall be replaced with a functionally equivalent link.

**19.5.2.2.8**

At the completion of the test, it shall be verified that the damper is unobstructed and in a fully operational mode.

**19.5.2.3** Periodic Testing for Dampers that Do Not Use a Fusible Link to Operate.

Once the fusible link is removed, it shall be verified that the damper closes completely without assistance.

**19.5.2.3.1\*** General.

Fans shall not be permitted to be shut down during the test.

**19.5.2.3.2** Dampers with Motorized Actuators.

Testing of dampers with actuators shall comply with the following procedure:

- (1) Visually confirm that the damper is in the fully open position.
- (2) Verify that all obstructions, including hands, are out of the path of the damper blades and then remove electrical power or air pressure from the actuator to allow the actuator's spring return feature to close the damper.
- (3) Visually confirm that the damper closes completely.
- (4) Reapply electrical power or air pressure to reopen the damper.
- (5) Visually confirm that the damper is in the fully open position.

**19.5.2.4**

Confirmation that the damper latches properly shall be verified where the damper is designed with a latch to hold the damper in the full-closed position.

**19.5.2.5**

The damper shall be returned to the full-open position and the fusible link shall be replaced. Where the link appears damaged, it shall be replaced with a functionally equivalent fusible link.

**19.5.3** Documentation.**19.5.3.1**

Testing of dampers with position indication wired to indication lights, control panels, or Building Automation System (BAS) shall comply with the following procedure:

The signal from the damper's position indication device shall be used to confirm that the damper is in the full-open position.

The damper shall be commanded to the closed position.

The signal from the damper's position indication device shall be used to confirm that the damper reaches its full-closed position.

The damper shall be commanded to the open position.

The signal from the damper's position indication device shall be used to confirm that the damper reaches its full-open position.

All inspections and testing shall be documented, indicating the location of the damper, date of inspection, name of inspector, and deficiencies discovered. The documentation shall have a space to indicate when and how the deficiencies were corrected.

**19.5.3.2** Testing for Dampers Without Position Indication.

Testing of dampers without position indication shall comply with the following procedure:

It shall be confirmed visually that the damper is in the full-open position.

It shall be verified that all obstructions, including hands, are out of the path of the damper blades and then electrical power or air pressure shall be removed from the actuator to allow the actuator's spring return feature to close the damper.

It shall be confirmed visually that the damper closes completely.

Electrical power or air pressure shall be reapplied to reopen the damper.

It shall be confirmed visually that the damper is in the full-open position.

All documentation shall be maintained for at least three test cycles and made available for review by the AHJ.

**19.5.3.3**

Periodic inspections and testing of a combination fire/smoke damper shall also meet the inspection and testing requirements contained in Chapter 6 of NFPA 105.

**19.5.4** Documentation.

**19.5.4.1**

All inspections and testing shall be documented, indicating the location of the ceiling radiation damper, fire damper, or combination fire/smoke damper; date of inspection; name of inspector; and deficiencies discovered.

**19.5.4.2**

The documentation shall have a space to indicate when and how the deficiencies were corrected.

**19.5.5**

All documentation shall be maintained and made available for review by the AHJ.

**19.5.6**

Periodic inspections and testing of a combination fire/smoke damper shall also meet the inspection and testing requirements contained in Chapter 6 of NFPA 105.

**19.5.7**

The damper frame shall not be penetrated by any foreign objects that would affect fire damper operations.

**19.5.8**

The damper shall not be blocked from closure in any way.

**19.5.9**

The fusible link shall be reinstalled after testing is complete.

**19.5.9.1**

If the link is damaged or painted, it shall be replaced with a link of the same size, temperature, and load rating.

**19.5.10**

All inspections and testing shall be documented, indicating the location of the ceiling radiation damper, fire damper, or combination fire/smoke damper, date of inspection, name of inspector, and deficiencies discovered.

**19.5.10.1**

The documentation shall have a space to indicate when and how the deficiencies were corrected.

**19.5.11**

All documentation shall be maintained and made available for review by the AHJ.

**19.5.12**

Periodic inspections and testing of a combination fire/smoke damper shall also meet the inspection and testing requirements contained in Chapter 6 of NFPA 105.

**Supplemental Information**

<u>File Name</u>	<u>Description</u>
80_SR_13_Annex_A.docx	
80_SR_13_Section_19.5_edited.docx	

**Submitter Information Verification**

**Submitter Full Name:** Kristin Bigda  
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**Submittal Date:** Mon Oct 06 13:27:23 EDT 2014

**Committee Statement**

**Committee Statement:** The revised provisions for the periodic inspection and testing of fire dampers is a results of a task group that was assembled after the First Draft meeting to continue the work of addressing current industry issues related to the this issue. The frequencies for inspection have not changed, but additional clarification has been provided related to the test method for both dampers operated by a fusible link and those that to not use a fusible link to operate. The new text will provide necessary clarification as to what steps need to be taken during the inspection and testing; guidance that was not provided in earlier editions of NFPA 80.

**Response  
Message:**

[Public Comment No. 9-NFPA 80-2014 \[Section No. 19.5.3\]](#)

[Public Comment No. 10-NFPA 80-2014 \[Section No. 19.5.3.1\]](#)

[Public Comment No. 11-NFPA 80-2014 \[Section No. 19.5.3.1\]](#)





## Second Revision No. 9-NFPA 80-2014 [ New Section after 20.9.5.2 ]

### **Chapter 21** Fire Protective Curtain Assemblies

#### **21.1** General.

##### **21.1.1\***

This chapter shall cover the installation, inspection, testing, and maintenance of fire protective curtain assemblies installed to protect vertical openings.

##### **21.1.2\***

Fire protective curtain assemblies shall be fire tested in accordance with UL 10D, *Fire Tests for Fire Protective Curtain Assemblies*.

##### **21.1.3**

Fire protective curtain assemblies shall be identified by a label attached to the bottom bar of the curtain. See [3.2.3](#).

#### **21.2** Mounting of Fire Protective Curtain Assemblies.

##### **21.2.1**

Fire protective curtain assemblies shall be mounted to supporting construction in accordance with their listing and with the manufacturer's installation instructions.

##### **21.2.2**

Items that are not a part of a fire protective curtain assembly shall not be field attached to any component of a fire protective curtain assembly.

##### **21.2.3**

Access to and clearances between surrounding construction and a fire protective curtain assembly shall allow for required testing and maintenance.

#### **21.3** Assembly Components.

##### **21.3.1**

Fire protective curtain assemblies shall be either self-closing or automatic-closing.

##### **21.3.1.1**

Fire protective curtain assemblies shall not have a delay in the initiation of closing of more than 10 seconds.

##### **21.3.1.2**

Fire protective curtain assemblies shall have an average closing speed of not less than 6 in./sec (152 mm/sec) or more than 24 in./sec (610 mm/sec).

##### **21.3.2\***

Curtains shall be permitted to be sewn by qualified persons in accordance with the manufacturer's instructions.

#### **21.4** Power Operators.

Power operators shall be provided with a standby or emergency power source to close the curtain upon activation or shall be capable of closing the curtain without power.

#### **21.5** Installation.

Fire protective curtain assemblies shall be installed in accordance with their listing and with the manufacturer's installation instructions.

#### **21.6** Inspection, Testing, and Maintenance.

##### **21.6.1**

Following completion of installation, fire protective curtains shall be inspected and tested in accordance with Section [21.7](#).

##### **21.6.2**

A record of all inspections and testing shall be signed by the inspector and kept for inspection by the AHJ.

**21.6.2.1**

Records of acceptance testing following completion of installation shall be retained for the life of the assembly.

**21.6.2.2**

Records of periodic inspections and testing shall be retained for a period of at least 3 years.

**21.6.2.3**

The records shall be on a medium that will survive the retention period. Paper or electronic media shall be permitted. [72:14.6.2.3]

**21.6.2.4**

A record of all inspections and testing shall be provided that includes, but is not limited to, the following information:

- (1) Date of inspection
- (2) Name of facility
- (3) Address of facility
- (4) Name of person(s) performing inspections and testing
- (5) Company name and address of inspecting company
- (6) Signature of inspector of record
- (7) Individual record of each inspected and tested fire protective curtain assembly
- (8) Opening identifier and location of each inspected and tested fire protective curtain
- (9) Type and description of each inspected and tested fire protective curtain
- (10) Verification of visual inspection and functional operation
- (11) Listing of any deficiencies

**21.6.2.5**

Upon completion of maintenance work, fire protective curtain assemblies shall be inspected and tested in accordance with Section 21.7.

**21.7 Acceptance Testing.****21.7.1**

Acceptance testing of fire protective curtains assemblies shall be performed by a qualified person with knowledge and understanding of the operating components of the type of assembly being subject to testing.

**21.7.2**

Before testing, a visual inspection shall be performed to identify any damaged or missing parts that can create a hazard during testing or affect operation or resetting.

**21.7.3**

Acceptance testing shall include the closing of the fire protective curtain assembly by all means of activation.

**21.7.4**

A record of these inspections and testing shall be made in accordance with Section 21.6.

**21.7.5**

The following items shall be verified:

- (1) Labels are clearly visible and legible.
- (2) No open holes or breaks exist in surfaces of the curtain or in the stitching of the curtain.
- (3) Curtain, guides, and coil are aligned, level, plumb, and true.

- (4) Mounting and assembly bolts are intact and secured.
- (5) Attachments to jambs are with bolts, expansion anchors, or as otherwise required by the listing.
- (6) Smoke detectors, if equipped, are installed, operational, and in accordance with NFPA 72.
- (7) No parts are missing or broken.
- (8) Auxiliary hardware items that interfere or prohibit operation are not installed on the curtain or frame.
- (9) No field modifications to the fire protective curtain assembly have been performed that void the label.
- (10) Fire protective curtain assemblies have an average closing speed of not less than 6 in./sec (152 mm/sec) or more than 24 in./sec (610 mm/sec).

#### **21.7.6**

Fire protective curtain assemblies shall be drop-tested twice.

##### **21.7.6.1**

The first test shall be to check for proper operation and full closure.

##### **21.7.6.2**

A second test shall be done to verify that the automatic-closing device has been reset correctly.

##### **21.7.7**

Fusible links, release devices, and other moveable parts shall not be painted or coated with other materials that could interfere with the operation of the assembly.

#### **21.8 Closing Devices.**

##### **21.8.1**

Fire protective curtain assemblies shall be inspected and tested to check for proper operation and full closure.

##### **21.8.2**

Resetting of the automatic-closing device shall be performed in accordance with the manufacturer's instructions.

#### **21.9 Periodic Inspection and Testing.**

##### **21.9.1**

Periodic inspections and testing of fire protective curtain assemblies shall be performed not less than annually.

##### **21.9.2**

As a minimum, the provisions of Section 21.7 shall be included in the periodic inspection and testing procedure.

#### **21.10 Maintenance.**

##### **21.10.1**

Repairs shall be made, and defects that could interfere with operation shall be corrected without delay.

##### **21.10.2**

Any breaks in the face covering of curtains shall be repaired in accordance with manufacturer's requirements without delay.

##### **21.10.3**

Where a fire protective curtain assembly or any part of its appurtenances is damaged to the extent that it could impair the assembly's proper emergency function, the following actions shall be performed:

- (1) The fire protective curtain assembly or any part of its appurtenances shall be repaired with labeled parts or parts obtained from the original manufacturer.
- (2) The fire protective curtain assembly shall be tested to ensure emergency operation and closing upon completion of the repairs.

**21.10.4**

If repairs cannot be made with labeled components or parts obtained from the original manufacturer, the fire protective curtain assembly or appurtenances shall be replaced.

**Supplemental Information**

<u>File Name</u>	<u>Description</u>
Chapter_21_FINAL.docx	Word document of new Chapter 21, if needed.
80_SR_9_Annex_A.docx	

**Submitter Information Verification**

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**Submittal Date:** Mon Oct 06 12:21:50 EDT 2014

**Committee Statement**

**Committee Statement:** Fire protective curtain assemblies are being used in the field to protect openings in fire rated assemblies, thus, NFPA 80 should address these opening protectives to provide guidance and ensure proper protection of the openings. New Chapter 21 represents the work of a task group that was established during the First Draft meeting to further explore and evaluate the necessary requirements for fire and smoke curtains. The language is an expansion of the work completed at the First Draft meeting and is in response to the developed committee inputs. The task group worked together to develop requirements that address the installation, inspection, and testing of these fire and smoke curtain products. An associated definition, and Annex material were also developed to clarify the application of the new chapter.

**Response  
Message:**

[Public Comment No. 42-NFPA 80-2014 \[New Section after 20.9.5.2\]](#)

**Second Revision No. 23-NFPA 80-2014 [ New Section after A.4.1.2 ]****A.4.1.3.2**

Depending on the internal construction of wood and composite doors, the bottom edge of the door leaves are permitted to be undercut (trimmed) to create minimal operating clearance between the bottom of the door and the floor. Undercutting the doors in the field might compromise the structural integrity of the doors by removing most or all of the internal bottom rails, voiding the label on the doors. Before undercutting wood or composite doors in the field, installers should verify that the internal construction of the doors will not be compromised. Due to the design of some wood and composite doors, the bottom edges of the doors are not permitted to be trimmed; labels and warranties might be voided by such work.

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**Submittal Date:** Mon Oct 06 15:22:21 EDT 2014

**Committee Statement**

**Committee Statement:** A committee input was developed during the First Draft meeting regarding clearances under fire doors. At this time, the committee is not prepared to modify the tolerances for clearances in the mandatory portion of the standard until testing or research can confirm the issue. This new annex language provides necessary clarification on the process of undercutting a door, which is done often in the field, and can lead to a void label or degradation of the fire door assembly.

**Response Message:**

**Second Revision No. 19-NFPA 80-2014 [ Section No. A.4.8.4.1 ]****A.4.8.4.1**

The maximum clearance of  $\frac{3}{4}$  in. (19 mm.) under fire doors as permitted by this standard is the accepted practice in the industry. NFPA 252 is a test standard, not an installation standard, and prescribes clearances and tolerances for swinging doors installed in the test wall opening. The test procedures as specified in NFPA 252 represent a worst-case condition for the fire test.

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**Committee Statement**

**Committee Statement:** The last sentence of the section was incorrect and should be removed for clarification.  
**Response Message:**



## Second Revision No. 17-NFPA 80-2014 [ Section No. A.5.1.4.1 ]

### A.5.1.4.1

Field modifications beyond the scope of the prescriptive allowances permitted by 4.1.3.2 through 4.1.3.2.5 typically result in voiding the fire rating of the assembly. Paragraph 4.1.4.2.1 5.1.4.1 provides an alternative method whereby proposed modifications can be documented and presented to the labeling agency prior to work commencing. Where the proposed modification(s) are within the parameters of the manufacturer's procedures and will not degrade the fire resistance of the assembly, the labeling agency is permitted to authorize such modifications without a requirement for a subsequent field inspection.

Generally, the replacement of hardware components on swinging doors (hinges, pivots, door closers, etc.) is not considered to be a field modification, provided the replacement hardware does not require additional cutting, mortising, or boring into the doors and frames and the hardware meets the criteria specified elsewhere in the standard. Likewise, the installation of surface-mounted items like protection plates is not considered to be field modifications. Cutting doors for vision panels, enlarging existing cutouts for vision panels, and trimming doors in height or width are examples of field modifications. Similarly, installing hardware components that require additional cutting and mortising of the doors or frames are examples of field modifications.

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### Committee Statement

**Committee Statement:** Change corrects an error in the referenced section.  
**Response Message:**



## Second Revision No. 22-NFPA 80-2014 [ New Section after A.5.2.3.2 ]

### A.5.2.3.5.2(11)

Aftermarket devices that are intended to alter the function and operation of door hardware could violate the listing and degrade the fire protection performance of the doorway. For example, magnetic strips that are marketed to apply over strike plates for quick school lockdowns directly defeat the purpose of the latching to hold the door in the closed position. Manufacturers and listing agencies should be consulted prior making any modifications or adding any devices to fire doors.

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**Submittal Date:** Mon Oct 06 15:17:17 EDT 2014

### Committee Statement

**Committee Statement:** New text clarifies a common issue in the field where aftermarket products may void the listing or degrade the fire protection rating of the door. Text further clarifies additional changes that were made to the standard regarding field modifications during the First Draft stage and last cycle.

**Response Message:**



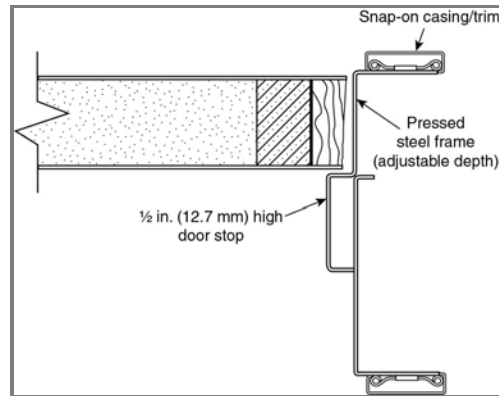


## Second Revision No. 24-NFPA 80-2014 [ Section No. A.6.3.1.1 ]

### A.6.3.1.1

Door frames might carry a label stating the hourly rating. The rating of the installed assembly should carry the rating of the door or the door frame, whichever is less. Door frames are constructed of hollow metal, pressed steel, channel iron, aluminum, wood, and composite metals. (See [Figure A.6.3.1.1.](#))

**Figure A.6.3.1.1 Pressed Steel Door Frame with Snap-On Casing/Trim.**



### Supplemental Information

<u>File Name</u>	<u>Description</u>
A.6.3.1.1.png	Figure A.6.3.1.1 (please add caption as follows: Pressed Steel Door Frame with Snap-On Casing/Trim)

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### Committee Statement

**Committee Statement:** Text provides advisory language on the materials of door frames.  
**Response Message:**



**Second Revision No. 21-NFPA 80-2014 [ New Section after  
A.6.4.4.11 ]**

**A.6.4.6**

The requirements of Section 19.4 do not apply to louvers in fire doors.

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**Submittal Date:** Mon Oct 06 15:13:05 EDT 2014

**Committee Statement**

**Committee Statement:** Proposed annex note adds clarification that louvers should not be treated as dampers. The new annex language corrects a misconception in the field whereas louvers may be inadvertently treated the same as a fire damper.

**Response Message:**



## Second Revision No. 11-NFPA 80-2014 [ Sections K.4, K.5 ]

### K.4

Despite the provision of protection specified in this standard, walls with openings have less fire resistance than unpierced walls. Fire curtains, doors, shutters, and fire windows are designed to protect an opening under normal conditions of use, with a clear space on both sides of the opening. Where the opening is not used and combustible material is piled against the curtain door, window, or shutter, the designed protection cannot be expected. For that reason, combustible material should be kept well away from openings. Where a door or window opening is no longer in use, the opening should be closed, with construction having a fire resistance rating equivalent to that of the wall.

### K.5

Any assembly provided in accordance with the provisions of this standard does not necessarily provide the same degree of protection against the spread of fire that is provided by the wall in which the assembly is installed, assuming that the wall has fire resistance established in accordance with ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials* or ANSI/UL 263, *Standard for Fire Tests of Building Construction and Materials*. Therefore, the size and number of openings in any wall required to have fire resistance should be kept to the minimum necessary for the normal or emergency operation of the occupancy. Building and fire codes generally limit the extent of wall openings permitted within a defined length of wall because the protection is not equivalent. The user of this standard is encouraged to become familiar with the limitations of these other standards.

The use of assemblies covered in this standard in fire-resistive walls only for decorative, aesthetic, and similar purposes is not recommended. However, there are glazing systems using fire-resistant glazing materials that are actually fire-resistive walls tested in accordance with ASTM E119. Such systems can be permitted to be used as fire-resistive walls and are not within the scope of this standard.

There are developments in the area of glazing that demonstrate a resistance to the passage of heat beyond that discussed in Annex I. Historically, the fire protection performance of glazing has been based on wired glass, which is capable of successfully meeting the fire exposure test criteria of NFPA 257, and which has been accepted as having a fire protection rating of 45 minutes. The fire protection-rated glazing materials are now capable of meeting the fire test criteria of NFPA 257 for as long as 3 hours, and some have a low radiant heat transfer capability for as long as 1 hour and 1½ hours. Safety glazing is also an important consideration where glazing materials are used in fire doors and in fire resistance-rated walls that could be subject to accidental human impact. In such applications, all model building codes contain requirements for safety glazing based on 16 CFR 1201, U.S. Consumer Product Safety Commission, "Standard for Architectural Glazing."

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### **Committee Statement**

**Committee Statement:** Update to Annex K to reflect the addition of new Chapter 21 for fire protective curtains.  
**Response Message:**



## Second Revision No. 12-NFPA 80-2014 [ New Section after K.7 ]

### K.8

Fire protective curtain assemblies are principally intended to be used to protect openings in fire separations that also provide a degree of smoke restriction.

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### Committee Statement

**Committee Statement:** New annex language reflects the addition of new Chapter 21 for fire protective curtains.  
**Response Message:**

**Second Revision No. 27-NFPA 80-2014 [ Section No. L.1.2.3 ]****L.1.2.3** ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM D5034, *Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)*, 20092013.

ASTM E90, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements*, 2009.

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials*, 2012a.

ASTM E413, *Classification for Rating Sound Insulation*, 2010.

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**Submittal Date:** Wed Oct 08 10:51:10 EDT 2014

**Committee Statement**

**Committee Statement:** Referenced publication update.

**Response Message:**



## Second Revision No. 28-NFPA 80-2014 [ Section No. L.1.2.7 ]

### L.1.2.7 UL Fabrications.

Underwrite Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

ANSI/UL 9, *Standard for Safety Fire Tests of Window Assemblies*, 2004, Revised April 2009.

ANSI/UL 10B, *Standard for Safety Fire Tests of Door Assemblies*, 2008, Revised 2009.

ANSI/UL 10C, *Standard for Positive Pressure Fire Tests of Door Assemblies*, 2009.

ANSI/UL 10D, *Standard for Fire Tests of Fire Protective Curtain Assemblies*, 2014.

ANSI/UL 263, *Standard for Fire Tests of Building Construction and Materials*, 2011.

UL 752, *Standard for Safety Bullet-Resisting Equipment*, 2005, Revised 2010.

*Fire Resistance Directory*, 2010.

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**Submission Date:** Wed Oct 08 10:55:35 EDT 2014

### Committee Statement

**Committee Statement:** Referenced publications update.

**Response Message:**