

# FIRE DOORS

Required Testing of Horizontal and Vertical Sliding and Rolling Fire Doors

**2006 International Fire Code adopted by The Galesburg City Council 3/2/2009**

## **Chapter 7: Fire-Resistance-Rated Construction –**

**703.4 Testing.** *Horizontal and vertical sliding and rolling fire doors shall be inspected and tested annually to confirm proper operation and full closure. A written record shall be maintained and be available to the fire code official.*

Code Commentary: Annual tests are intended to determine that required fire and smoke-barrier doors operate freely and close completely. Where fusible links are used as the releasing mechanism, the link may be temporarily removed rather than activated during testing. Fusible links in poor condition must be replaced as part of the maintenance of fire-resistance components. Smoke detectors and heat detectors other than fusible links must be tested as required by the manufacturer’s instructions (see NFPA 72 for recommended testing procedures for various fire detectors). Written records must indicate the date, time, test method and person conducting the test for each opening protective. These records must be maintained by the owner and made available to the fire code official for review. This requirement relieves the fire code official of the administrative burden of maintaining test records.

Note: This test (including documentation) is not a new requirement. Fire Door testing requirements were included in the 1993 BOCA Fire Code adopted by the City of Galesburg January 18, 1994. As of August 9, 2013 the fire department is aware there are credentials or licensing required to be able to conduct this type of test, however, there are classes and industry certificates that may be obtained by those doing the testing.

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### **Other Fire Rate Construction Requirements:**

**703.1 Maintenance.** *The required fire-resistance rating of fire-resistance-rated construction (including walls, firestops, shaft enclosures, partitions, smoke barriers, floors, fire-resistive coatings and sprayed fire-resistant materials applied to structural members and fire-resistant joint systems) shall be maintained. Such elements shall be properly repaired, restored or replaced when damaged, altered, breached or penetrated. Openings made therein for the passage of pipes, electrical conduit, wires, ducts, air transfer openings and holes made for any reason shall be protected with approved methods capable of resisting the passage of smoke and fire. Openings through fire-resistance-rated assemblies shall be protected by self- or automatic-closing doors of approved construction meeting the fire protection requirements for the assembly.*

**703.1.1 Fireblocking and draftstopping.** *Required fireblocking and draftstopping in combustible concealed spaces shall be maintained to provide continuity and integrity of the construction.*

**703.1.2 Smoke barriers.** *Required smoke barriers shall be maintained to prevent the passage of smoke and all openings protected with approved smoke barrier doors or smoke dampers.*

**703.2 Opening protectives.** *Opening protectives shall be maintained in an operative condition in accordance with NFPA 80. Fire doors and smoke barrier doors shall not be blocked or obstructed or otherwise made*

*inoperable. Fusible links shall be replaced promptly whenever fused or damaged. Fire door assemblies shall not be modified.*

**703.2.1 Signs.** *Where required by the fire code official, a sign shall be permanently displayed on or near each fire door in letters not less than 1 inch (25 mm) high to read as follows:*

- 1. For doors designed to be kept normally open: FIRE DOOR—DO NOT BLOCK.*
- 2. For doors designed to be kept normally closed: FIRE DOOR—KEEP CLOSED.*

**703.2.2 Hold-open devices and closers.** *Hold-open devices and automatic door closers, where provided, shall be maintained. During the period that such device is out of service for repairs, the door it operates shall remain in the closed position.*

**703.2.3 Door operation.** *Swinging fire doors shall close from the full-open position and latch automatically. The door closer shall exert enough force to close and latch the door from any partially open position.*

**704.1 Enclosure.** *Interior vertical shafts, including but not limited to stairways, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected as specified in Table 704.1. [except for institutional uses, the table requires a one hour vertical protection or sprinklers for vertical openings connecting 3 or more stories]*

## A Suggested Checklist:

# FIRE INSPECTORS CHECKLIST



### 12 Things to Look for While Conducting a Fire Door Inspection:

- ① Fuselinks cannot be painted
- ② Fuselinks or other release device must be connected
- ③ Interior fire doors must have fuselinks/smoke detectors-one on each side of the door
- ④ Fuselinks and/or detection devices must be installed within 12" of the ceiling height, but never within 4" of corner walls
- ⑤ Door, shutter or partition must not have any damage preventing it from working (example: dented hood, damaged or missing guides, damaged slats, etc.)
- ⑥ Cables & chains on suspended doors must not have any excessive wear or stretching
- ⑦ Doors or partitions must not be blocked, propped or wedge in any manner that would prevent them from fully closing
- ⑧ Egress actuating devices for egress fire doors must be functional during alarm conditions
- ⑨ Both the UL and manufacturer's label must be secured to the door
- ⑩ Written inspection records must be up-to-date (Yearly inspection records must be kept and made available to the authority having jurisdiction)
- ⑪ Repairs must be made using original manufacturer's parts
- ⑫ Repairs must be made without delay

### 2010 NFPA 80 Excerpts

- 5.1.3 Operability. Doors, shutters, and windows shall be operable at all times. They shall be kept closed and latched or arranged for automatic closing.
- 5.1.5 Repairs and Field Modifications. Repairs shall be made, and defects that could interfere with operation shall be corrected without delay.
- 5.2.13 Prevention of Door Blockage. Door openings and the surrounding areas shall be kept clear of anything that could obstruct or interfere with the free operation of the door. Blocking or wedging of doors in the open position shall be prohibited.
- 5.2.14 Maintenance of Closing Mechanisms. All horizontal or vertical sliding and rolling fire doors shall be inspected and tested annually to check for proper operation and full closure. Resetting of the automatic-closing device shall be done in accordance with the manufacturer's instructions. A written record shall be maintained and shall be made available to the AHJ. When the annual test for proper operation and full closure is conducted, rolling steel fire doors shall be drop tested twice. The first test shall be to check for proper operation and full closure. A second test shall be done to verify that the automatic-closing device has been reset correctly. Fusible links or other heat-actuated devices and release devices shall not be painted.
- 5.2.15 Repair of Fire Doors and Windows. Where a fire door, frame, or any part of its appurtenances is damaged to the extent that it could impair the door's proper emergency function, the following actions shall be performed: (1) The fire door, frame, or any part of its appurtenances shall be repaired with parts obtained from the door's manufacturer. (2) The door shall be tested to ensure emergency operation and closing upon completion of the repairs.

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# Sample Fire Door Test Form



Crestwood Industrial Park  
 Mountaintop, Pennsylvania 18707  
 Tel 570.474.6773 / 800.233.8366  
 Fax 570.474.9973 / 800.526.0841

## Rolling Steel Fire Door Initial & Annual Drop Test Form

**NOTE TO OWNER:** NFPA 80 AND MODEL CODES REQUIRE THE ANNUAL TESTING OF ROLLING FIRE DOORS TO DEMONSTRATE PROPER OPERATION AND FULL CLOSURE. RESETTING OF THE RELEASE MECHANISM MUST BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. A WRITTEN RECORD MUST BE MAINTAINED AND MADE AVAILABLE TO THE AUTHORITY HAVING JURISDICTION. NFPA 80 ALSO REQUIRES THAT WHEN DAMAGE IMPAIRS THE DOOR'S PROPER AUTOMATIC CLOSING FUNCTION THAT IT BE REPAIRED WITH PARTS OBTAINED FROM THE ORIGINAL DOOR'S MANUFACTURER AND UPON COMPLETION OF REPAIRS THAT THE DOOR BE TESTED TO ASSURE AUTOMATIC CLOSING OPERATION.

WARNING: SEVERE INJURY OR DEATH MAY RESULT THROUGH IMPROPER ATTEMPTS AT DROP TESTING, REPAIR AND MAINTENANCE. DROP TESTING, REPAIR AND/OR MAINTENANCE SHOULD BE PERFORMED BY A TRAINED DOOR SYSTEM TECHNICIAN WITH COMPLETE KNOWLEDGE AND UNDERSTANDING OF THIS TYPE OF DOOR AND THE DOOR MANUFACTURER'S INSTALLATION/RESET INSTRUCTIONS. BEFORE DROP TESTING, USE THE GUIDELINES ON THE REVERSE SIDE OF THIS FORM TO CONDUCT A VISUAL INSPECTION FOR DAMAGED OR MISSING PARTS THAT MAY CREATE A HAZARD DURING TESTING OR AFFECT PROPER OPERATION OR RESETTING. OPEN AND CLOSE THE DOOR TO CHECK FOR PROPER INSTALLATION. THE DOOR MUST BE FULLY OPEN BEFORE DROP TESTING.

Project \_\_\_\_\_ Contact \_\_\_\_\_  
 Address \_\_\_\_\_ Phone \_\_\_\_\_  
 \_\_\_\_\_ Date \_\_\_\_\_

Location/ Door Mark #	Wall Opening		Door Manufacturer	Door Serial No.	Fire Label Agency and Serial No.	Visual Inspection		Operational Inspection		Drop Test	
	Width	Height				PASS	FAIL	PASS	FAIL	PASS	FAIL

Recommended Work \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Recommended Work is:** Authorized  Declined  By \_\_\_\_\_ Date \_\_\_\_\_

THE DOORS LISTED ABOVE HAVE BEEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE AUTOMATIC RELEASE DEVICE HAS BEEN TESTED TO DEMONSTRATE PROPER OPERATION AND FULL CLOSURE. THEY HAVE BEEN RESET IN ACCORDANCE WITH THE MANUFACTURER'S RESET INSTRUCTIONS AND LEFT IN PROPER WORKING CONDITION, UNLESS OTHERWISE NOTED ABOVE.

Tested by \_\_\_\_\_ Witnessed by \_\_\_\_\_  
 Company \_\_\_\_\_ Representing \_\_\_\_\_  
 Address \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_  
 \_\_\_\_\_  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

white – distributor / installer

yellow – owner / witness