

**UNIVERSITY OF ROCHESTER  
ENVIRONMENTAL HEALTH & SAFETY**

<b>Policy No.: FS003-A</b>	<b>Approved by: Mark Cavanaugh</b>
<b>Title: Fire Doors</b>	<b>Date: 10/17/19</b>
<b>Revision No.: New</b>	<b>Page 1 of 6</b>
<b>Prepared by: Scott Miller</b>	

**I. PURPOSE**

Provide guidance on the inspection, maintenance and field modifications of fire doors in University owned buildings.

**II. PERSONNEL AFFECTED**

EH&S Fire Safety  
3<sup>rd</sup> Party Inspectors  
Facilities Fire Door Inspection Team(s)  
Campus Planning, Project Management (PPM) Project Coordinator

**III. DEFINITIONS**

Re-certification shall be completed anytime a field modification has been done on a fire rated door or frame and shall be completed by an approved agency. Current approved vendors are;

Intertek  
Guardian Fire Testing Laboratories

Fire rated equipment or material needs to have attached a label, symbol or other identifying mark of an organization that is acceptable to the AHJ on all fire doors and frames in fire rated barriers or walls. Failure to have the identifying label, symbol or mark will require the equipment or material to be re-labeled. Re-labeling of rated doors or rated frames shall be completed by an approved agency. Current approved vendors are;

Fire Door Solutions

Fire doors and frames are identified using life safety drawings to identify the rating and location of the barrier. If life safety drawings are not available, you can go out into the field to try to determine if the barrier is rated or reach out to EH&S for a ruling.

**IV. RESPONSIBILITIES**

The PPM or Facilities project manager or person responsible for the installation triggering re-certifications shall submit a completed Request for re-certification of a Fire Rated Door Assembly Form to the Safety & Compliance Manager for Medical Center projects and Trades Supervisor/Area Manager for RC projects.

**V. PROCEDURES**

New York State Building Code, Section 716.5 requires approved fire door and fire shutter assemblies shall be constructed of any material or assembly of component materials that conforms to the test requirements of Section 716.5.1, 715.5.2 or 716.5.3

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and the fire-protection rating indicated in Table 716.5. Fire door assemblies and shutters shall be installed in accordance with the provisions of this section and NFPA 80.

NFPA 80 2013 Section 4.3.1 states that only labeled fire doors shall be used. Section 6.3.1.1 states that only labeled door frames shall be used. Indicate the hourly rating of the door and frame.

NFPA 80 Section 2-4.3.4 Standard for Fire Doors and Other Opening Protective's states that when required to meet the clearances stated in 2-3.1.7, the shimming of hinges using steel shims shall be permitted.

NFPA 80 Section 2-4.8 states that gasketing on fire doors or frames shall be furnished only in accordance with the published listings of the door.

**Job Site Preparations and Field Modifications:**

Field modification require permission requested in advance by contacting the manufacturer of the component being modified. The manufacturer will then contact the appropriate listing laboratory with a written or graphic description of the modifications. The listing laboratory must then provide written permission in advance of the modifications being made.

Hardware preparations made on the job site are recognized as appurtenances in NFPA 80. In the case of a fire door assembly, appurtenances include locks, hinges, closers, astragals, and other hardware, as well as glass lights, louvers, and plant-ons.

Preparations for appurtenances must be performed in accordance with the manufacturer's inspection procedure and under label service – typically at the manufacturer's facility or an authorized shop where labels may be applied.

All appurtenances installed shall be UL listed.

When panic hardware is used on fire doors, it must be fire exit hardware, which bears labels for both panic and fire resistance. A door with fire exit hardware will also have an additional label, indicating it is equipped with fire exit hardware.

Limited preparations may be made on the job site. NFPA 80 limits job site preparations to the following:

- Holes for surface-applied hardware – applied to the door or frame without removing material other than drilling round holes to accommodate the cylinder, spindles, and similar operational elements, as well as through-bolts. The maximum diameter for

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these holes drilled in the field is 1 inch, except cylinders which may be drilled in the size necessary to accommodate the cylinder.

- Functional holes for mortise locks.
- Holes for labeled viewers.
- Maximum ¾-inch wood and composite door undercutting
- Protection plates
  - Protection plates are generally metal or plastic plates used to protect the door from wear or impact, and are covered in Annex E of NFPA 80.
  - They may be applied to one or both faces of the door, attached by adhesive, screws, or other mechanical means, and are typically mounted within the bottom 16 inches of the door to avoid affecting the performance of the door during a fire.
  - Protection plates installed within the bottom 16 inches of the door may be field-installed without needing to be labeled.
  - Plates above the 16-inch location may be used if allowed by the door manufacturer’s listings, but plates mounted above this area are required to be labeled if they are installed in the field.
- Signage
  - Informational signs shall be permitted to be installed on the surfaces of fire doors.
  - The total area of all attached signs shall not exceed 5% of the area of the face of the fire door.
  - Signs shall be attached to fire doors by use of an adhesive.
  - Mechanical attachments such as screws or nails shall not be permitted.
  - Signs shall not be installed on glazing material.
  - Signs shall not be installed on the surface of fire doors so as to impair or otherwise interfere with the proper operation of the fire door.

Any allowable job site preparations that do not fall within the above exceptions shall require the assembly to be re-certified by a third party agency such as Intertek or Guardian.

Any fire door or frame not labeled would need to have a re-labeling service such as Fire Door Solutions brought in to label the door.

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Guidelines on typical appurtenances:

Unican reader installed on fire rated door:

This is legacy hardware that is no longer being installed.

Unican readers removed and replaced with stainless steel plates to cover holes from previous hardware and regular mortise locks on fire rated doors. This would be classified as a field modification. Permission must be requested in advance by contacting the manufacturer of the component being modified. The manufacturer will then contact the appropriate listing laboratory with a written or graphic description of the modifications. The listing laboratory must then provide written permission in advance of the modifications being made.

An alternate approach may be to replace only the fire rated door with a listed and labeled door in the labeled frame.

Wi fi reader installed on fire rated door:

Typical < 1” hole installation preparations fall within the allowable “additional jobsite preparations” listed above. Re-certification is not required.

Electric strike cut into metal fire rated door frames:

These preparations do not fall within the allowable “additional jobsite preparations” listed above and shall require re-certification.

Door contacts installed into fire rated doors and frames:

Typical < 1” hole installation preparations fall within the allowable “additional jobsite preparations” listed above. Re-certification is not required.

Door closures installed after the fact on fire rated doors and door frames.

Typical < 1” hole installation preparations fall within the allowable “additional jobsite preparations” listed above. Re-certification is not required.

Metal and Wood Doors being drilled into horizontally for electric mortise locks for the wiring would be classified as a field modification. Permission must be requested in advance by contacting the manufacturer of the component being modified. The manufacturer will then contact the appropriate listing laboratory with a written or graphic description of the modifications. The listing laboratory must then provide written permission in advance of the modifications being made.

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Electro Magnetic Locks installed on the door and door frame of FR doors.

Typical < 1” hole installation preparations fall within the allowable “additional jobsite preparations” listed above. Re-certification is not required.

Stairwell door hardware changes where cylinder locks are replaced with fire exit hardware:

Due to the original preparations left in the door, this practice is not permissible and shall require the fire rated door assembly to be replaced.

Vision Panels cut into fire rated doors:

These preparations do not fall within the allowable “additional jobsite preparations” listed above. Doors shall be returned to the manufacturer’s facility or an authorized shop that originally applied the fire rated label for preparations or replaced.

**Re-certification process:**

Re-certification shall be completed within 45 days of installation of the appurtenance triggering re-certification. The purpose of this grace period is to allow the grouping of assemblies requiring re-certification into fewer agency visits which may lower the cost per assembly.

Re-certification documentation is to be attached to the equipment ID in FAMIS. If an ID does not exist, one shall be created. Please contact the Preventative Maintenance group for assistance.

**Re-labeling process:**

Re-labeling shall be done on any door or frame that is in a rated fire barrier or wall and currently does not have a label.

Re-labeling shall be completed within 45 days of identification of any rated door or frame not having an existing label. The purpose of this grace period is to allow the grouping of assemblies requiring re-labeling into fewer agency visits which may lower the cost per assembly.

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Guidelines on inspections:

When inspecting a fire door, you should verify the following:

No holes or breaks in the surface of the door

Any repair to a hole >1” would require a field modification or new door

Glazing, vision light frames and glazing beads must be intact

Door, frame, hinges, hardware and noncombustible threshold must be secured, aligned and working properly

No missing or broken parts

The clearances between the top and vertical edges of the door and the frame, and the meeting edges of doors swinging in pairs, shall be 1/8 in. ± 1/16 in. for steel doors and shall not exceed 1/8 in. for wood doors.

The clearance under the bottom of a door shall be a maximum of 3/4 in.

Self-closing devices are operational, if a coordinator is installed, the inactive door leaf closes before the active leaf

Latching hardware operates and secures the door when it is in the closed position

Auxiliary hardware items that interfere or prohibit operation are not installed

No field modifications to the door have been made

Gasketing and edge seals are inspected

For trash chute doors, NFPA 82 requires either the chute access door must be locked or the door to the service room where the chute access door is located must be locked, but not both.

Note: existing chute doors installed before 2003 are not required to be locked.

**VI. REFERENCES**

New York State Building Code – 2015 Edition

NFPA 80 – 2010 Edition (NFPA 101 Reference)

NFPA 80 – 2013 Edition (NYSBC Reference)

**VII. APPENDICES/FORMS**

Not Applicable

**VIII. REVISION HISTORY**

Date	Revision No.	Description
10/17/2019	New	Establish written procedure for inspection, maintenance and field modifications of fire doors

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