



FESHM 6040.3: PROTECTION OF OPENINGS IN FIRE RATED ASSEMBLIES

Revision History

Author	Description of Change	Revision Date
J. Priest & J. Niehoff	<ul style="list-style-type: none">• Applied FESHM template.• Renamed chapter• Added the word “listed” to UL• Added Table.	November 2014



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1.0 INTRODUCTION

Building codes, depending on area and height of a facility, will require fire compartments that are formed by fire barriers (partitions) to subdivide floor or an area to assist with occupants exiting a facility. Properly maintained opening protective in fire barrier walls is essential to contain a fire until the occupants have exited and fire suppression is applied to extinguish the fire. Part of the inspector's responsibility, therefore, is to ensure that openings remain properly protected and that nothing has been done to nullify or defeat the fire barrier protection.

2.0 REFERENCES

- Fermilab Environment Safety Health Manual (FESHM) 6010, Fire Protection Program
- FESHM 6012 Periodic Inspection of Fire Doors
- National Fire Protection Association (NFPA) 101, Life Safety Code, 2012 Edition
- NFPA 80, Standard for Fire Doors and Other Opening Protectives, 2013 Edition
- NFPA 221, Standard for Fire Walls and Fire Barrier Walls, 2009 Edition

3.0 RESPONSIBILITIES

3.1 Authority Having Jurisdiction (AHJ)

Individuals/groups given limited authority and responsibility to perform Authority Having Jurisdiction (AHJ) duties for fire protection at the laboratory as defined in FESHM 6010.

3.2 Building Manager

Conducts regular schedule walk through of all spaces with fire rated assemblies and documents walk through and findings.

4.0 PROGRAM DESCRIPTION

- 4.1 It is the responsibility of landlord divisions/sections/centers to ensure that acceptable fire assemblies are installed and properly maintained as required in all their assigned facilities.
- 4.2 The fire rating of fire stop materials shall meet or exceed that of the fire barriers in which they are used.
- 4.3 Only Underwriters Laboratory (UL) Listed and/or Factory Mutual (FM) Global Approved fire stop materials shall be used. Installation shall be performed by qualified installers and in accordance to manufacturer's specifications.



- 4.4 Documentation on the fire stops is to be maintained by the landlord division/section/center.
- 4.5 Penetrations through or into Hazardous (Classified) locations shall be approved by the Environment Safety Health and Quality (ESH&Q) Fire Protection Engineer. When necessary, sealing wiring entering into locations deemed hazardous shall meet applicable National Electric Code (NEC) (NFPA 70) Article 500 requirements.
- 4.6 In new construction, fire barriers should be labeled with the hour rating.
- 4.7 The following simplified table is the required hourly fire protection rating of components in which the assemblies are located, reference NFPA 101, Life Safety Code, 2012 Edition, Table 8.3.4.2 for further fire protection rating for opening protective in fire barriers.

Component	Partitions (Hour rating)	Fire Door Assemblies (Minutes)	Door Vision Panel Maximum Size (Inches)
Elevator Hostway	1	45 or 60	155
	2	90	155
Vertical Shafts, including stairways, exits, and refuse chutes	1	45 or 60	Max. Size Tested
	2	90	Max. Size Tested
Fire Barriers (walls)	1	45 or 60	Max. Size Tested
	2	90	Max. Size Tested
Exit corridors/ passageway exits/ Labyrinth	1	45 or 60	Max. Size Tested
	2	90	Max. Size Tested