

University of Michigan Hospitals and Health Centers
Fire Prevention and Response Program
UMHHC Policy 05-03-028

Exhibit B

Maintenance of Fire and Smoke Barriers

The integrity of smoke barriers and firewalls is critical to maintain the fire-safe construction of UMHHC hospital and off-site facilities.

1. Definitions

ASTM – American Society for Testing and Materials

Fire Barrier – A fire partition or floor/ceiling assembly.

Firewall – A wall separating buildings or subdividing a building to prevent the spread of fire and having a fire resistance rating and structural stability.

Fire Partition – Vertical construction such as a wall built floor- to-deck to limit the passage of fire from one area to another.

Floor/ceiling Assembly – Horizontal construction such as a ceiling or floor, which limits the passage of fire.

Smoke Barrier – A wall, ceiling or floor separating buildings or subdividing a building to prevent the spread of smoke or other combustion products. They are built floor to deck and limit the passage of smoke, gasses, and products of combustion from one area to another.

Penetration – An opening made in a fire or smoke-rated wall, partition, floor, ceiling or roof.

2. Procedure

Contractors will be held responsible for sealing all penetrations in the project area unless they can prove prior existence of the penetrations. It is incumbent on the contractor to survey the project area before work begins to document existing penetrations and to transmit this information in writing to the University of Michigan Construction Manager.

All fire or smoke barrier penetrations shall be sealed with approved Underwriters Laboratory's (UL) systems and with firestopping material that meets or exceeds ASTM E814 (UL 1479) standards. All materials are to remain consistent with the use of a single manufacturer's brand of materials for individual penetrations. Multiple manufacturer's products may be used within a building.

University of Michigan Hospitals and Health Centers
Fire Prevention and Response Program
UMHHC Policy 05-03-028

Where installations occur that are unique to UMHHC facilities or do not fall within approved UL systems guidelines, a design judgement regarding such a system shall be submitted to Safety Management Services prior to installation.

Personnel installing firestopping material must be trained and certified by the manufacturer. The training shall be consistent with Factory Mutual Standard 4991 and documented.

All sealed penetrations shall be labeled with the following information:

- 1) Date of installation
- 2) Installer and/or Installation company
- 3) Type/Brand/Product# of sealant used
- 4) UL #
- 5) Hr. Rating

Penetrations, voids and ceiling tiles in existing fire and smoke barriers shall be repaired and sealed when no work is being performed in that area.

All penetrations shall be inspected and accepted by Safety Management Services.

3. Responsibilities

Responsibility	Action
Contractor	<ol style="list-style-type: none">1. Survey the work area before work begins to identify any existing penetrations.2. Ensure only trained & certified employees are applying firestopping materials.3. Ensure penetrations are not left open when no work is being performed in the area.4. Ensure ceiling tiles are replaced when no work is being performed in the area.

University of Michigan Hospitals and Health Centers
Fire Prevention and Response Program
UMHHC Policy 05-03-028

Responsibility	Action
UMHHC Design Manager	1. Include the firestopping requirements of this policy in the project contract documents.
UMHHC Construction Manager	1. Require certification from the contractor that the work area has been surveyed for existing penetrations before work begins. 2. Ensure penetrations are not left open when no work is being performed in the area. 3. Ensure all penetrations are sealed at the end of the project.
Safety Management Services	1. Inspect and accept penetrations.

4. REFERENCES

ASTM E814-02 (UL 1479), Standard Test Method for Fire Tests of Through-Penetration Fire Stops, American Society of Testing and Materials, 2002.

FM 4991, Approval Standard for Approval of Firestop Contractors, FM Global Technologies LLC, 2001.

Firestop Contractors International Association Manual of Practice,

NFPA 221, Fire Walls and Fire Barrier Walls National Fire Protection Association, 2005.