



# NIH Division of the Fire Marshal

## Administrative Interpretation 17-4

### Construction Separation

**Code References:** NFPA 241 (2013), section 8.6.2  
NFPA 101 (2015), Chapter 43 Building Rehabilitation definitions

**Background:** NFPA 241, section 8.6.2, requires 1 hour fire-rated separation walls & doors to protect occupied areas from areas undergoing construction, alteration, or demolition when such operations are deemed by DFM to have a higher hazard than the occupied portion of the building. The alternative to the rated wall is a compliant sprinkler system and unrated separation walls & doors. The annex clarifies that construction tarps (such as plastic dust barriers) will not suffice for an unrated wall. Full literal compliance with these provisions has proven to be unfeasible for short-duration and minor projects.

**Interpretation:** Where separation is required to protect occupied areas from higher hazard areas:

1. Projects lasting 30 days or less: Separation by fire retardant plastic is acceptable instead of a wall. Sprinkler system within the construction area need not be compliant. Projects that go beyond 30 days shall meet items 2 or 3 below before work proceeds.
2. Repair or Renovation projects outside CRC and lasting over 30 days: Separation by fire retardant plastic is acceptable instead of a wall. Sprinkler system within the construction area need not be compliant.
3. Modification and Reconstruction projects lasting over 30 days: Before work is performed, separation shall fully meet NFPA 241 section 8.6.2.1, as modified below:
  - a. Existing separation walls that are full height (floor to deck) are acceptable regardless of rating if patched and firestopped.
  - b. Existing separation walls that are partial height are acceptable regardless of rating if patched and firestopped (mineral wool acceptable) and extended to deck with an assembly that meets 3.c or 3.d.

- c. New permanent separation walls can be 1-hour listed assemblies such as 5/8" type X gypsum board on both sides of studs spaced 16" on center.
- d. New temporary separation walls can be 2 layers of 5/8" type X gypsum board on one side of studs spaced 16" on center, patched and firestopped.
- e. Where ceilings remain in place to keep sprinkler systems compliant, small scattered portions may be removed if at least 75% of the ceiling remains in place at any given time in each room.
- f. Where sprinkler systems must be adjusted to remain compliant (such as when ceilings are removed), sprinkler heads may need to be raised and changed to upright type. Only sprinklers within the project area must be adjusted even if open to adjacent ceiling spaces. DFM shop drawing review is not necessary for the temporary arrangement, but inspection of the arrangement is required. No work shall be done and no combustible materials shall be present between the time the ceilings are removed and the time the sprinkler system is returned to service after adjustments.
- g. Where it is not practical to build a separation wall (as determined by PO and DFM), there is no sprinkler coverage, or where the sprinkler system will be impaired for more than 10 hours, an approved fire watch is permissible in accordance with NFPA 25, para. 15.5.2.

4. Specific requirements for any project in the Building 10 complex:

- a. CRA and ILSM needs may preclude option 1 above.
- b. Option 2 above is not permitted.
- c. Fire watch is required when sprinkler systems are not fully compliant.

**Supersedes:** Administrative Interpretation 16-3 signed 12/30/16

**Prepared by:** DFM Fire Protection Engineering Services Team

**Date Issued** July 12, 2017 **Fire Marshal**

J. P. McCabe

## NFPA excerpts provided for convenience

### **Temporary Separation Walls.** [NFPA 241 §8.6.2]

**8.6.2.1** Protection shall be provided to separate an occupied portion of the structure from a portion of the structure undergoing alteration, construction, or demolition operations when such operations are considered as having a higher level of hazard than the occupied portion of the building.

**8.6.2.2** Walls shall have at least a 1-hour fire resistance rating.

**8.6.2.3** Opening protectives shall have at least a 45-minute fire protection rating.

**8.6.2.4\*** Nonrated walls and opening protectives shall be permitted when an approved automatic sprinkler system is installed.

**Repair** [NFPA 101 §43.2.2.1.1] The patching, restoration, or painting of materials, elements, equipment, or fixtures for the purpose of maintaining such materials, elements, equipment, or fixtures in good or sound condition.

**Renovation** [NFPA 101 §43.2.2.1.2] The replacement in kind, strengthening, or upgrading of building elements, materials, equipment, or fixtures, that does not result in a reconfiguration of the building spaces within.

**Modification.** [NFPA 101 §43.2.2.1.3] The reconfiguration of any space; the addition, relocation, or elimination of any door or window; the addition or elimination of load-bearing elements; the reconfiguration or extension of any system; or the installation of any additional equipment.

**Reconstruction** [NFPA 101 §43.2.2.1.4] The reconfiguration of a space that affects an exit or a corridor shared by more than one occupant space; or the reconfiguration of a space such that the rehabilitation work area is not permitted to be occupied because existing means of egress and fire protection systems, or their equivalent, are not in place or continuously maintained.