

M. J. "MIKE FOSTER, JR.

**GOVERNOR** 

**Public Safety Services** 



V J. BELLA STATE FIRE MARSHAL

## INTERPRETIVE MEMORANDUM 2002-18

- To: Licensed Architects Licensed Engineers Felicia Cooper, Administrator - Inspections Stephen Gogreve, Manager of Inspections/Arson Pat Day, Supervisor of Health Care Inspections Boyd Petty, Manager Plan Review Staff
- From: Don Zeringue, Chief Architect Jean Carter, Architect Supervisor Fidel Fremin, Architect Supervisor Cynthia Obier, Architect Supervisor
- Approved: Mark Gates, Deputy Assistant Secretary
- Date: November 14, 2002

## Re: Smoke Partition Penetrations

NFPA 101:8.4.1.2 states that, in new construction, where protection is provided with automatic extinguishing systems without fire-resistive separation, the space protected shall be enclosed with smoke partitions in accordance with 8.2.4.

The code commentary for this section explains that, "the concept of limiting the transfer of smoke from one side of a smoke partition to the other is different from the concept of preventing any and all smoke from transferring to the other side of a partition. A smoke partition should be thought of as a barrier that reasonably limits, but does not prevent smoke transfer."

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NFPA 101:8.2.4.4.4 provides questionable guidance when addressing "penetrations and miscellaneous openings in smoke partitions" by stating that the penetrating item's or sleeve's annular space shall meet one of the following conditions:

- a. It shall be filled with a material that is capable of limiting the transfer of smoke.
- b. It shall be protected by an approved device that is designed for the specific purpose.

Other than a listed fire barrier through penetration system this office is not aware of an "approved device," specifically for smoke partition penetrations and miscellaneous openings.

Taking guidance from the commentary this office will consider various sealants or caulking as being acceptable for smoke partition penetrations based on the following criteria:

- 1. The sealant shall be capable of adhering to both the penetrating item and the wall material.
- 2. The sealant shall be relatively flexible to accommodate movement.
- 3. The sealant shall be applied in a manner that will "limit the transfer of smoke."
- 4. Non shrink caulking may be used on wall penetrating items not subject to movement.

DZ/md