



GUIDANCE FOR SMOKE DOORS AND SMOKE CURTAINS AT ELEVATOR ENTRANCES

Discussion

This guidance applies to elevators required to meet the 2013 and later editions of ASME A17.1 when Smoke Doors and/or Smoke Curtains are provided at elevator entrances in lieu of an enclosed elevator lobby as required by the International Building Code.

The requirements outlined below first appeared in the 2013 edition of ASME A17.1, The Safety Code for Elevators and Escalators. ASME A17.1 does not determine the requirements for the installation of Smoke Doors and/or Smoke Curtains; rather, it provides requirements when those means for smoke mitigation are provided.

ASME A17.1 Requirements

ASME A17.1 Section 2.11.6.3 states that the egress from an elevator to the landing shall be unrestricted once the elevator and hoistway doors are open. This means that when Smoke Doors or Smoke Curtains are installed, there must be a means for them to be opened from the elevator interior.

Additional doors or devices that are provided in lieu of an enclosed elevator lobby must comply with these additional requirements.

- (a) The Building Code.
- (b) The additional door or device shall not interfere with the operation of the elevator.
 - a. Smoke Doors or Smoke Curtains cannot obstruct call buttons, key switches, etc.
- (c) The Smoke Door or Smoke Curtain cannot interfere with the fire rating and operation of the hoistway door and cannot be directly attached to the hoistway door unless the fire rating is certified as a complete assembly.
- (d) When in the closed position, the Smoke Door or Smoke Curtain shall not prevent firefighters from visually observing the elevator landing when the hoistway door is no more than $\frac{1}{4}$ of the way open.
 - a. This is the most overlooked of the additional requirements, as there is no mention of it in the IBC, IFC or NFPA.
 - b. If a Smoke Door is in place, there must be a vision panel or window that allows firefighters to see the lobby.



- c. If a Smoke Curtain is in place, then it must also have a clear panel, window or be translucent for firefighters to see the lobby.
- (e) The Smoke Doors or Smoke Curtains are only permitted to be deployed (closed) at landings where fire alarm initiating devices to activate Phase I recall have been activated.
 - a. This requirement is also typically overlooked and often goes unchecked during inspections.

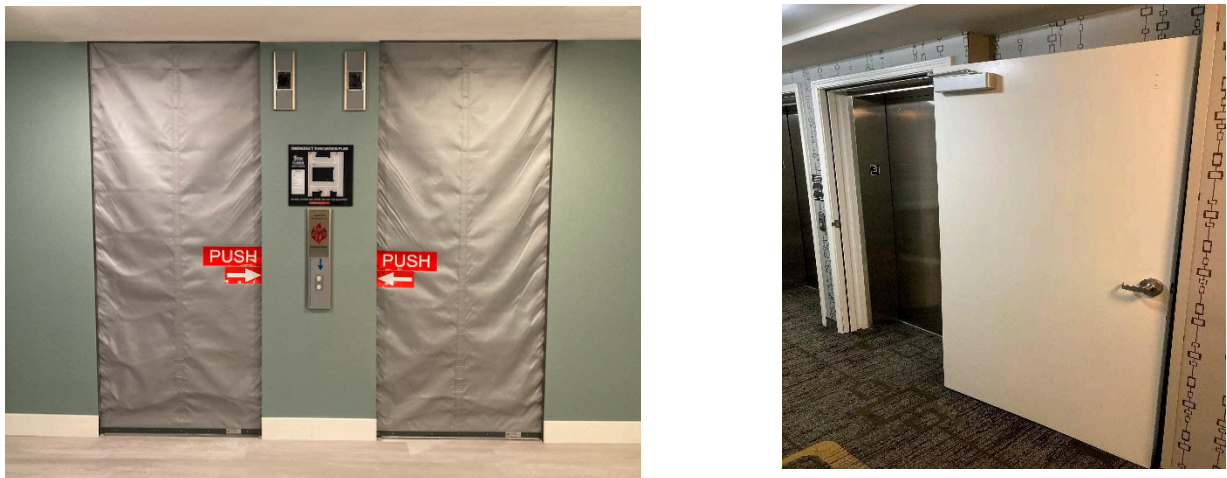
Examples

ASME A17.1 Compliant Smoke Doors and Smoke Curtains



In the above examples, firefighters would be able to view the elevator lobby when the Smoke Doors or Smoke Curtains are in the closed position, so they are ASME A17.1 code compliant.

ASME A17.1 Non-compliant Smoke Doors and Smoke Curtains



These Smoke Curtains and Smoke Doors would prevent firefighters from visually observing the elevator lobby when in the closed position, so they are not ASME A17.1 code compliant.