

Issue DS 2019-014: The petitioner Allen R. Finfrock, P.E. is seeking a declaratory statement on whether the code classifies an access panel as a “smoke and draft control door” which would require it to be rated per UL 1784.

Background:

Finfrock is a design/build/m manufacturer who is designing a dormitory project for Florida A & M University. As part of the design requirements, the Owner requested that the dorm room fan coil units be serviceable from the corridor. Our corridor walls are classified as "fire partitions" with a one hour fire rating. The 2017 Florida Building Code, Section 708 refers to section 716 which includes a paragraph 716.5.3.1 which states that "fire door assemblies shall meet the requirements for a smoke and draft control door assembly tested in accordance with UL 1784." To provide the service access requested by the *Owner*, they intend to provide fire rated access panels in the corridor wall. These panels will be 18" wide by 57" high and open into the interstitial space of the wall enclosing the fan coil units. This space does not communicate with any occupiable space.

6th Edition (2017) Florida Building Code, Building

Section 202 Definitions

FIRE PARTITION. A vertical assembly of materials designed to restrict the spread of fire in which openings are protected.

FIRE DOOR ASSEMBLY. Any combination of a *fire door*, frame, hardware and other accessories that together provide a specific degree of fire protection to the opening.

Section 708.3 Fire-resistance rating.

Fire partitions shall have a *fire-resistance rating* of not less than 1 hour.

Exceptions:

1. Corridor walls permitted to have a 1/2-hour *fire-resistance rating* by Table 1020.1.
2. *Dwelling unit* and *sleeping unit* separations in buildings of Type IIB, IIIB and VB construction shall have *fire-resistance ratings* of not less than 1/2 hour in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

Section 716.4 Alternative methods for determining fire protection ratings.

The application of any of the alternative methods listed in this section shall be based on the fire exposure and acceptance criteria specified in NFPA 252, NFPA 257 or UL 9. The required fire resistance of an opening protective shall be permitted to be established by any of the following methods or procedures:

1. Designs documented in *approved* sources.
2. Calculations performed in an *approved* manner.
3. Engineering analysis based on a comparison of opening protective designs having fire protection ratings as determined by the test procedures set forth in NFPA 252, NFPA 257 or UL 9.

4. Alternative protection methods as allowed by Section 104.11.

Section 716.5.2 Other types of assemblies.

Fire door assemblies with other types of doors, including swinging elevator doors, horizontal sliding fire door assemblies, and fire shutter assemblies, bottom and side-hinged chute intake doors, and top-hinged chute discharge doors, shall be tested in accordance with NFPA 252 or UL 10B. The pressure in the furnace shall be maintained as nearly equal to the atmospheric pressure as possible. Once established, the pressure shall be maintained during the entire test period.

716.5.3 Door assemblies in corridors and smoke barriers.

Fire door assemblies required to have a minimum fire protection rating of 20 minutes where located in corridor walls or smoke barrier walls having a fire-resistance rating in accordance with Table 716.5 shall be tested in accordance with NFPA 252 or UL 10C without the hose stream test.

Exceptions:

1. Viewports that require a hole not larger than 1 inch (25 mm) in diameter through the door, have not less than a 0.25-inch-thick (6.4 mm) glass disc and the holder is of metal that will not melt out where subject to temperatures of 1,700°F (927°C).
2. Corridor door assemblies in occupancies of Group I-2 shall be in accordance with Section 407.3.1.
3. Unprotected openings shall be permitted for corridors in multitheater complexes where each motion picture auditorium has not fewer than one-half of its required exit or exit access doorways opening directly to the exterior or into an exit passageway.
4. Horizontal sliding doors in smoke barriers that comply with Sections 408.6 and 408.8.4 in occupancies in Group I-3.

Section 716.5.3.1 Smoke and draft control.

Fire door assemblies shall meet the requirements for a smoke and draft control door assembly tested in accordance with UL 1784. The air leakage rate of the door assembly shall not exceed 3.0 cubic feet per minute per square foot (0.01524 m³/s • m²) of door opening at 0.10 inch (24.9 Pa) of water for both the ambient temperature and elevated temperature tests. Louvers shall be prohibited. Installation of smoke doors shall be in accordance with NFPA 105.

Section 708.6 Openings.

Openings in a *fire partition* shall be protected in accordance with Section 716.

Staff Analysis

Question:

Does the code classify an access panel as a "smoke and draft control door" which would require it to be rated per UL 1784?

Answer:

Option #1/Petitioner:

Petitioner respectfully believes the answer to the question is "NO". Since fire rated access panels are not tested to UL 1784, we do not believe that the codes' intent is to classify these panels as "control doors"; otherwise, we feel that they would have been tested to the standard years ago.

Option #2/Staff:

The answer to question is "Yes." As per section 716.5.3.1, Smoke and draft control, the access panel in question must meet the requirements for a smoke and draft control door assembly tested in accordance with UL 1784.