

addressed independently of the occupancy in which they are located. The presence of these rooms does not result in a facility being designated a multiple occupancy.

7.12.1 Mechanical equipment rooms, boiler rooms, furnace rooms, and similar spaces shall be arranged to limit common path of travel to a distance not exceeding 50 ft (15 m), unless otherwise permitted by the following:

- (1) A common path of travel not exceeding 100 ft (30 m) shall be permitted in the following locations:
 - (a) In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7
 - (b) In mechanical equipment rooms with no fuel-fired equipment
 - (c) In existing buildings
- (2) In an existing building, a common path of travel not exceeding 150 ft (46 m) shall be permitted, provided that all of the following criteria are met:
 - (a) The building is protected throughout by an approved, supervised automatic sprinkler system installed in accordance with Section 9.7.
 - (b) No fuel-fired equipment is within the space.
 - (c) The egress path is readily identifiable.
- (3) The requirement of 7.12.1 shall not apply to rooms or spaces in existing health care occupancies complying with the arrangement of means of egress provisions of 19.2.5 and the travel distance limits of 19.2.6.

7.12.2 Stories used exclusively for mechanical equipment, furnaces, or boilers shall be permitted to have a single means of egress where the travel distance to an exit on that story is not in excess of the common path of travel limitations of 7.12.1.

Paragraph 7.12.2 is especially useful in equipment penthouses and for basement furnace and boiler rooms. As long as the common path of travel specified by 7.12.1 is not exceeded, a story used exclusively for mechanical equipment, boilers, or furnaces is permitted to be served by a single exit.

7.13 Normally Unoccupied Building Service Equipment Support Areas

The provisions of Section 7.13 are new to the 2012 edition of the *Code*. They have the effect of significantly

reducing the means of egress features required for normally unoccupied building service equipment support areas. See 3.3.21.6 for a definition of *normally unoccupied building service equipment support area*. The advisory annex text that accompanies the definition is repeated below, as it is important not to permit the leniencies offered by Section 7.13 to be used in spaces that should not be classified as normally unoccupied building service equipment support areas.

A.3.3.21.6 Normally Unoccupied Building Service Equipment Support Area.

Normally unoccupied building service support areas are often found in attics, crawl spaces, chases, and interstitial areas where the space is vacant or intended exclusively for routing ductwork, cables, conduits, piping, and similar services and is rarely accessed. In such spaces, it is often difficult or impossible to fully comply with the egress requirements of Chapter 7. Where portions of such spaces are routinely visited for storage, maintenance, testing, or inspection, that portion is excluded from this definition, but the remainder of the space might be considered a normally unoccupied building service equipment support area. Storage and fuel-fired equipment would not be expected to be permitted in these locations. Roofs are not considered to be normally unoccupied building service equipment support areas.

The two themes that run through Section 7.13 are that the subject means of egress feature that is normally required by Chapter 7 is exempted in the normally unoccupied building service equipment support area if:

1. The normally unoccupied building service equipment support area is not larger than 45,000 ft² (4180 m²) in a building that is not sprinklered throughout, without the presence or absence of sprinklers in the normally unoccupied building service equipment support area affecting the determination of whether the building is sprinklered throughout
2. The normally unoccupied building service equipment support area is not larger than 90,000 ft² (8370 m²) in a building that is sprinklered throughout, without the presence or absence of sprinklers in the normally unoccupied building service equipment support area affecting the determination of whether the building is sprinklered throughout

7.13.1* Hazard of Contents.

A.7.13.1 29 CFR 1910.146 of the OSHA regulations describes the aspects of normally unoccupied areas. For ex-

ample, hazardous atmosphere criteria are presented, and asphyxiation risk due to an entrance becoming engulfed are addressed. The areas described by 29 CFR 1910.146, "Permitted Required Confined Spaces," would be considered hazardous if located within a building or structure regulated by NFPA 101.

7.13.1.1 Unless prohibited by Chapters 11 through 43, the provisions of Section 7.13 shall apply, in lieu of the provisions of Sections 7.1 through 7.12, to normally unoccupied building service equipment support areas where such areas do not contain high hazard contents or operations.

The provisions of Section 7.13 are permitted to be used, unless otherwise prohibited by Chapters 11 through 43. The occupancies prohibiting the use of Section 7.13 are hotels, dormitories, and apartment buildings. See 28.2.11.3, 29.2.11.3, 30.2.11.3, and 31.2.11.3.

7.13.1.2 Building service equipment support areas shall not contain fuel-fired equipment or be used for the storage of combustibles.

7.13.2 Egress Doors.

7.13.2.1* Egress from normally unoccupied building service equipment support areas shall be provided by doors complying with 7.2.1 where the normally unoccupied building service equipment support area exceeds 45,000 ft² (4180 m²) in buildings not protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

A.7.13.2.1 Egress from normally unoccupied building service equipment support areas not exceeding 45,000 ft² (4180 m²) is permitted to be by access panels or other hardware not complying with the door requirements of 7.2.1.

7.13.2.2 Egress from normally unoccupied building service equipment support areas shall be provided by doors complying with 7.2.1 where the normally unoccupied building service equipment support area exceeds 90,000 ft² (8370 m²) in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

The provisions of 7.13.2 are worded so as to require that egress be via doors only if the normally unoccupied building service equipment support area is very large. The provisions have the effect of exempting doors from spaces that are smaller than the area thresholds specified. The text of A.7.13.2.1 explains that egress can be served by access panels where doors are not required.

7.13.2.3 The absence of sprinklers in the normally unoccupied building service equipment support area, as permitted by an exemption of NFPA 13, *Standard for the Installation of Sprinkler Systems*, shall not cause a building to be classified as nonsprinklered for purposes of applying the provisions of 7.13.2.2.

7.13.3 Means of Egress Path.

7.13.3.1 A designated means of egress path shall be provided within the normally unoccupied building service equipment support area where the normally unoccupied area exceeds 45,000 ft² (4180 m²) in buildings not protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

7.13.3.2 A designated means of egress path shall be provided within the normally unoccupied building service equipment support area where the normally unoccupied area exceeds 90,000 ft² (8370 m²) in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

7.13.3.3 The absence of sprinklers in the normally unoccupied building service equipment support area, as permitted by an exemption of NFPA 13, *Standard for the Installation of Sprinkler Systems*, shall not cause a building to be classified as nonsprinklered for purposes of applying the provisions of 7.13.3.2.

7.13.3.4 Where a means of egress path is required, the path shall be a minimum of 28 in. (710 mm) clear width.

7.13.3.5 Where a means of egress path is required, minimum headroom shall be 6 ft 8 in. (2030 mm) along the entire designated means of egress path.

7.13.3.6 Exit signage shall not be required along the means of egress path within normally unoccupied building service equipment support areas.

7.13.3.7 Where two means of egress are required, the means of egress path shall connect the two required means of egress.

7.13.3.8 The designated means of egress path shall be within 25 ft (7.6 m) of any portion of the space where the only available access requires crossing over or under obstructions, unless the space is completely inaccessible.

The provisions of 7.13.3 are worded so as to require a designated means of egress path only if the normally unoccupied building service equipment support area is very large. The provisions have the effect of exempting requirements related to all of the following from

spaces that are smaller than the area thresholds specified:

1. Minimum width
2. Minimum headroom height
3. Exit and directional exit signage
4. Prohibition on travel over and under obstructions

7.13.4 Illumination.

7.13.4.1 The minimum illumination of means of egress along the required means of egress path shall be 0.2 ft-candle (2.2 lux), except as otherwise provided in 7.13.4.2.

7.13.4.2 Illumination of means of egress shall not be required in normally unoccupied building service equipment support areas where illumination of means of egress is not required by the applicable occupancy chapter for the remainder of the building.

The provisions of 7.13.4 permit the required minimum illumination levels to be just one-fifth of those required by Section 7.8.

7.13.5 Number of Means of Egress.

7.13.5.1 Two remotely located means of egress shall be provided within the normally unoccupied building service equipment support area where the normally unoccupied area exceeds 45,000 ft² (4180 m²) in buildings not protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

7.13.5.2 Two remotely located means of egress shall be provided within the normally unoccupied building service equipment support area where the normally unoccupied area exceeds 90,000 ft² (8370 m²) in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

7.13.5.3 The absence of sprinklers in the normally unoccupied building service equipment support area, as permitted by an exemption of NFPA 13, *Standard for the Installation of Sprinkler Systems*, shall not cause a building to be classified as nonsprinklered for purposes of applying the provisions of 7.13.5.2.

The provisions of 7.13.5 are worded so as to require two means of egress only if the normally unoccupied building service equipment support area is very large. The provisions have the effect of exempting two means of egress from spaces that are smaller than the area thresholds specified.

7.14 Elevators for Occupant-Controlled Evacuation Prior to Phase I Emergency Recall Operations

Section 7.14 provides requirements on the design, installation, and use of occupant evacuation elevators where elevators are used for occupant-controlled evacuation prior to Phase I Emergency Recall Operations mandated by the Firefighters' Emergency Operations provisions of ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators*. Use of the provisions of Section 7.14 is not mandated by any requirement of the Code. Instead, if elevators are to be used for occupant evacuation, such elevators are required to comply with the provisions of Section 7.14 so that such use does not endanger the building occupants. A building developer might use Section 7.14 in the construction documents for a new building in which the elevators are to be used for occupant-controlled evacuation. An owner of an existing building might reference Section 7.14 as part of the specifications for the retrofitting of an elevator in the building for occupant-controlled evacuation. A design professional might consult Section 7.14 for guidance in providing services, even where Section 7.14 is not specifically adopted or referenced.

The content of Section 7.14 had its genesis following the September 11, 2001, attacks on the World Trade Center towers when Richard Bukowski [then of the National Institute of Standards and Technology (NIST)] requested that the standards-development organizations with interests in elevators, fire and life safety codes, and fire fighter operations work together to develop a framework under which elevators could be used for occupant evacuation and fire-fighting operations. The request was consistent with Recommendation 20 of the NIST Final Report on the Collapse of the World Trade Center Towers, which states:

Recommendation 20: NIST recommends that the full range of current and next generation evacuation technologies should be evaluated for future use, including protected/hardened elevators, . . . which may allow all occupants an equal opportunity for evacuation and facilitate emergency response access.⁴⁰

In response to the NIST request, the American Society of Mechanical Engineers (ASME), which publishes ASME A17.1/CSA B44, sponsored the ASME Workshop on Use of Elevators in Fires and Other Emergencies in Atlanta, Georgia, in March 2004. Co-sponsors of the workshop included NIST, NFPA, the International Code Council (ICC), the US Access