

CHAPTER 27

ELECTRICAL

SECTION BC 2701 GENERAL

2701.1 Scope. This chapter governs the electrical components, equipment and systems used in buildings and structures covered by this code. Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of the *New York City Electrical Code*.

SECTION BC 2702 EMERGENCY POWER SYSTEMS

2702.1 Installation. Emergency systems shall be installed in accordance with the *New York City Electrical Code*, NFPA 110 and NFPA 111, and shall have an on-premises fuel supply sufficient for not less than 6-hour full-demand operation of the system. However, for R-2 occupancies required to provide emergency power systems pursuant to the provisions of Section 403.11.2, and for voluntarily installed emergency power systems, natural gas from the public utility street main shall be permitted as fuel supply.

2702.1.1 Stationary generators. Emergency power generators shall be listed in accordance with UL 2200.

2702.1.2 Capacity. The emergency power system shall have a capacity and rating that supplies all equipment required to be operational at the same time.

2702.2 Where required. Emergency power systems shall be provided where required by this section.

2702.2.1 Group A occupancies. Emergency power shall be provided for voice/alarm communication systems in Group A occupancies in accordance with Section 907.2.1.2.

2702.2.2 Smoke control systems. Emergency power shall be provided for smoke control systems in accordance with Section 909.11.

2702.2.3 Exit signs. Emergency power shall be provided for exit signs in accordance with Section 1011.5.3.

2702.2.4 Means of egress illumination. Emergency power shall be provided for means of egress illumination in accordance with Section 1006.3.

2702.2.5 Accessible means of egress elevators. Emergency power shall be provided for elevators that are part of an accessible means of egress in accordance with Section 1007.4

2702.2.6 Horizontal sliding doors. Emergency power shall be provided for horizontal sliding doors in accordance with Section 1008.1.3.3

2702.2.7 Semiconductor fabrication facilities. Emergency power shall be provided for semiconductor fabrication facilities in accordance with Section 415.9.10.

2702.2.8 Membrane structures. Emergency power shall be provided for auxiliary inflation systems in accordance

with Section 3102.8.2. Emergency power shall be provided for exit signs in tents and membrane structures.

2702.2.9 Hazardous materials. Emergency power shall be provided in occupancies with hazardous materials in accordance with Section 414.5.4 and the *New York City Fire Code*.

2702.2.10 Highly toxic and toxic materials. Emergency power shall be provided for occupancies with highly toxic or toxic materials in accordance with the *New York City Fire Code*.

2702.2.11 Organic peroxides. Emergency power shall be provided for occupancies with organic peroxides in accordance with the *New York City Fire Code*.

2702.2.12 Pyrophoric materials. Emergency power shall be provided for occupancies with silane gas in accordance with the *New York City Fire Code*.

2702.2.13 Covered mall buildings. Emergency power shall be provided for voice/alarm communication systems in covered mall buildings in accordance with Section 402.12

2702.2.14 High-rise buildings. Emergency power shall be provided in high-rise buildings in accordance with Section 403.11.

2702.2.15 Underground buildings. Emergency power shall be provided in underground buildings in accordance with Section 405.10.

2702.2.16 Group I-3 occupancies. Emergency power shall be provided for doors in Group I-3 occupancies in accordance with Section 408.4.2.

2702.2.17 Reserved.

2702.2.18 Elevators. Emergency power for elevators, including elevators provided to accommodate ambulance stretchers pursuant to Section 3002.4, shall be provided as set forth in Section 3003.1

2702.2.19 Smokeproof enclosures and pressurized elevator shaft. Emergency power shall be provided for smokeproof enclosures as required by Section 909.20 and for pressurized elevator shafts provided in accordance with Item 5 of Section 403.9.1.1.

2702.2.20 Occupancy Groups B, E and R-1. An emergency power system shall be required in those Group B, E and R-1 occupancies specified in this section:

1. Group B occupancies with occupied floor less than 75 feet (22 860 mm) above the lowest fire department vehicle access having a gross floor area over 15,000 square feet (1393.6 m²) per floor or a total gross floor area of 100,000 square feet (9290.3 m²) or more.
2. Group E occupancies with occupied floor less than 75 feet (22 860 mm) above the lowest level of Fire

Department vehicle access having a gross floor area over 15,000 square feet (1393.6 m²) per floor or a total gross floor area of 100,000 square feet (9290.3 m²) or more.

3. All Group R-1 occupancies.

2702.2.20.1 Equipment requiring emergency power system. With respect to such Occupancy Groups B, E and R-1, the following equipment, where such equipment is required by this code, shall be provided with an emergency power system:

1. Exit signs and means of egress illumination required by Chapter 10;
2. Elevator car lighting;
3. Emergency voice/alarm communications systems;
4. Automatic fire detection systems;
5. Fire alarm systems;
6. Electrically powered fire pumps;
7. Ventilating systems used for smoke venting or control;
8. Stair pressurization; and
9. At least three elevators in a building at one time with manual transfer to other elevators as required by Section 3003.

2702.3 Maintenance. Emergency power systems shall be maintained and tested in accordance with the *New York City Fire Code* and *New York City Electrical Code*.