**Section 350.2740 Electrical Systems**

a) General Electrical System Requirements

1) All material including equipment, conductors, controls, and signaling devices shall be installed to provide a complete electrical system with the necessary characteristics and capacity to supply the electrical facilities required by these standards. All materials shall be listed as complying with the applicable standards of Underwriters' Laboratories, Inc. or other similarly established standards.

2) All electrical installations and systems shall be tested to show that the equipment is installed and operates as planned or specified and be in accordance with these this Subpart.

3) The installation shall meet all the requirements of NFPA 70.

b) Switchboards and Power Panels. Circuit breakers or fusible switches that provide disconnecting means and overcurrent protection for conductors connected to switchboards and panelboards shall be enclosed or guarded to provide a dead-front type of assembly. The main switchboard shall be located in a separate enclosure accessible only to authorized persons. The switchboard shall be convenient for use, readily accessible for maintenance, clear of traffic lanes, and located in a dry ventilated space free of corrosive fumes or gases. Overload protective devices shall be suitable for operating properly in ambient temperature conditions.

c) Panelboards. Panelboards that serve lighting and appliance circuits shall be located on the same floor as the circuits they serve. This requirement does not apply to emergency system circuits.

d) Lighting

1) All spaces occupied by people, machinery, and equipment within buildings, approaches to and exits from buildings, and parking lots shall have lighting.

2) Resident's rooms shall have general lighting. A vandal-proof reading light shall be provided for each resident. At least one light fixture shall be switched at the entrance to each resident room. All switches for control of lighting in residents' sleeping areas shall be of the quiet operating type.

e) Receptacles (Convenience Outlets)

1) Each resident room shall have at least three duplex grounding type receptacles: One located on each side of the head of each bed; one for television if used; and one on another wall. Receptacles shall be located between 12 to 30 inches above the finished floor.

2) Resident bathrooms shall have at least one duplex receptacle.

3) See Article 517 of NFPA 70 for grounding requirements.

4) Duplex receptacles shall be installed approximately 50 feet apart in all corridors and within 25 feet from the ends of corridors.

f) Door Alarm System. Each exterior door shall be equipped with a signal that will alert staff if a resident leaves the building. Any exterior door that is supervised during certain periods may have a disconnect device for part-time use. If there is constant supervision of the door 24 hours a day, a signal is not required.

g) Fire Alarm System

1) A manually and automatically operated fire alarm system shall be installed.

2) Automatic smoke detectors shall be installed in all resident rooms and at 30 feet on center in all corridors other than sleeping area corridors.

h) Emergency Electrical System

1) To provide electricity during an interruption of the normal electric supply, an emergency source of electricity shall be provided and connected to certain circuits for lighting and power. The emergency system shall comply with NFPA 70, NFPA 99, AND NFPA 100, as applicable.

2) The source of this emergency electrical service shall be a Level I or Level II, Class X, Type 10 emergency generating set approved by the Department.

3) Details

A) The life safety branch and critical branch shall be in operation within ten seconds after the interruption of normal electric power supply.

B) Receptacles connected to emergency power shall be distinctively marked.

C) The emergency generator shall not be solely dependent upon a public utility gas system for the fuel supply. The facility shall maintain a written procedure for automatically transferring from one fuel supply to another when dual fuel supplies are used.

D) When fuel storage facilities are provided on the site, the fuel tank shall have minimum capacity for 24-hour operation of the generator.

(Source: Amended at 48 Ill. Reg. 2546, effective January 30, 2024)