**Section 264.2900 Electrical Systems**

a) General

1) Applicable Standards

A) All electrical material and equipment, including conductors, controls, and signaling devices, shall be installed in compliance with applicable sections of NFPA 70 and NFPA 99.

B) All electrical material and equipment shall be listed as complying with available standards of listing agencies or other similar established standards when such standards are required.

C) Field labeling of equipment and materials shall be permitted only when provided by a nationally recognized testing laboratory that has been certified by the Occupational Safety and Health Administration (OSHA) for that referenced standard.

2) Testing and Documentation. The electrical installations, including alarm, nurse call, and communication systems, shall be tested to demonstrate that equipment installation and operation is appropriate and functional. A written record of performance tests on special electrical systems and equipment shall show compliance with applicable codes and standards.

b) Electrical Distribution and Transmission

1) Switchboards

A) Location

i) Main switchboards shall be in an area separate from plumbing and mechanical equipment and shall be accessible to authorized persons only.

ii) Switchboards shall be convenient for use, readily accessible for maintenance, and away from traffic lanes.

iii) Switchboards shall be in a dry, ventilated space free of corrosive or explosive fumes, gases, or any flammable material.

B) Overload Protective Devices. These shall operate properly in ambient room temperatures.

2) Panelboards

A) Panelboards serving critical branch, equipment system, or normal system loads shall be located on the same floor as the loads to be served.

B) Location of panelboards serving life safety branch loads on the floor above or the floor below the loads to be served shall be permitted.

C) New panelboards shall not be in public access corridors.

3) Ground-fault Circuit Interrupters

A) Ground-fault circuit interrupters (GFCIs) shall comply with NFPA 70.

B) When ground-fault circuit interrupters are used in critical areas, provisions shall be made to ensure that other essential equipment is not affected by activation of one interrupter.

c) Power Generating and Storing Equipment

Emergency Electrical Service. Emergency power shall be provided for in accordance with NFPA 99, NFPA 101, and NFPA 110.

d) Lighting

1) General. See Section 1.6-2.3.1.1 of the AIA Guidelines.

2) Lighting for Specific Locations in the Birth Center

A) Birth Rooms. Birth rooms shall have general lighting and night lighting.

i) A reading light shall be provided for each client. Reading light controls shall be accessible to the client without the client having to get out of bed. Incandescent and halogen light sources that produce heat shall be avoided to prevent burns to the client and/or bed linen. Unless specifically designed to protect the space below, the light source shall be covered by a diffuser or lens. Flexible light arms, if used, shall be mechanically controlled to prevent the lamp from contacting the bed linen.

ii) At least one night light fixture in each birth room shall be controlled at the room entrance.

B) Corridors shall have general illumination with provisions for reducing light levels at night.

3) Emergency Lighting. See Section 1.6-2.3.1.2 of the AIA Guidelines.

4) Exit Signs. See Section 1.6-2.3.1.3 of the AIA Guidelines.

e) Receptacles

1) Receptacles in Corridors. Duplex-grounded receptacles for general use shall be installed approximately 50 feet (15.24 meters) apart in all corridors and within 25 feet (7.62 meters) of corridor ends.

2) Birth Rooms. Each birth room shall have duplex-grounded receptacles. One receptacle shall be at each side of the head of each bed; one for television, if used; one on every other wall; and one for each motorized bed.

3) Emergency System Receptacles. Electrical receptacle cover plates or electrical receptacles supplied from the emergency systems shall be distinctively colored or marked for identification. If color is used for identification purposes, the same color shall be used throughout the birth center.

f) Call Systems

Each birthing room shall be equipped with a system of communicating to other parts of the birth center and to an outside telephone line. Specific locations in the Birth Center such as toilet and bathing area shall have a process by which a client can communicate with the birth center in the event of an emergency.