

FILE NO. 1-11.1

DATE: October 20, 2000

CODE APPLICATION NOTICE**CODE SECTION:** Title 24, Part 1, Chapter 6, Article 11, Section 11.1 (TABLE 11.1)**11.1 NONSTRUCTURAL PERFORMANCE CATEGORIES**

Each building shall be assigned a Nonstructural Performance Category (NPC), based upon the degree of anchorage and bracing of selected nonstructural elements and systems. This includes architectural, mechanical, electrical, and hospital equipment in addition to associated conduit, ductwork, piping, and machinery. NPCs are defined in Table 11.1

Excerpt from Table 11.1, Nonstructural Performance Categories

Timeframes	Nonstructural Performance Category	Description
January 1, 2002	NPC 2	The following are braced or anchored in accordance with Part 2, Title 24 ¹ : <ul style="list-style-type: none"> • Communications systems; • emergency power supply; • bulk medical gas systems; • fire alarm systems; and • emergency lighting equipment and signs in the means of egress.

1. For the purposes of Article 11, all enumerated items within Table 11.1 shall meet the requirements of Section 1630B by the specified timeframe as indicated by their respective NPC.

INTERPRETATION:

Hospitals shall identify the means of egress for each building subject to the provisions of SB 1953, NPC-2. For the purposes of NPC-2 compliance, the 1995 CBC, Title 24, Part 2, Volume 1, Chapter 10, Section 1001.2.3 "Exit" may be used to identify the means of egress. Emergency lighting equipment in the means of egress shall be taken to mean all light fixtures required for exit illumination, as specified in 1995 CBC, Title 24, Part 2, Volume 1, Chapter 10, Section 1012.1 "Exit Illumination," as well as any other light fixtures on the same emergency power circuit.

All light fixtures on the emergency circuit powering exit illumination, when mounted to the ceiling system, shall be installed in accordance with the 1998 CBC, Title 24, Part 2, Volume 1, Chapter 25, Section 2501A.5.4.2, "Ceiling Fixtures." Fixture support wires shall be installed in accordance with the 1998 CBC, Title 24, Part 2, Volume 1, Chapter 25, Section 2501A.5.7.1, "Vertical hangers". Alternatively, light fixtures may be braced for seismic forces in accordance with all applicable requirements of Title 24, Part 2.

REASON:

The NPC-2 performance level is intended to enhance the ability to safely evacuate a building following a strong earthquake. NPC-2 identifies emergency lighting equipment and signs in the means of egress as one of five nonstructural systems critical to the attainment of the desired performance level.

The approach outlined above has been developed to assist the industry in identifying the emergency lighting equipment subject to the NPC-2 anchorage and bracing provisions. It should be noted that NPC-2 requires bracing of emergency lighting equipment only if it is currently installed. There is no NPC-2 requirement for installation of exit illumination in a building if it does not currently contain it. If a building does contain emergency lighting, the principal requirement is that the light fixtures providing exit illumination function following strong ground shaking.

Experience has shown that unbraced light fixtures will function following an earthquake, provided:

1. There is an operating source of power, and
2. The fixtures do not fall from the ceiling.

Since the intent of NPC-2 is that the building be evacuated in an orderly manner, the fixtures must be prevented from falling from the ceiling, as opposed to bracing the fixtures to limit all movement. Typically, there is slack in the wiring between light fixtures, and some displacement of the light fixtures in a strong earthquake can be tolerated. However, movements large enough to break the exit illumination circuit must be avoided. In some facilities, this will mean bracing light fixtures that are not in the means of egress, but that are on the same circuit as fixtures providing exit illumination. Compliance with all SB 1953 requirements for NPC's 3, 4, and 5 must be provided by the 2008 or 2030 deadlines, as applicable.

ORIGINAL SIGNED

10/20/00

Kurt A. Schaefer

Date