an emergency system supply source to which the load will be transferred automatically upon the failure of the normal supply.

700.19 Multiwire Branch Circuits. The branch circuit serving emergency lighting and power circuits shall not be part of a multiwire branch circuit.

Part V. Control — Emergency Lighting Circuits

700.20 Switch Requirements. The switch or switches installed in emergency lighting circuits shall be arranged so that only authorized persons have control of emergency lighting.

Exception No. 1: Where two or more single-throw switches are connected in parallel to control a single circuit, at least one of these switches shall be accessible only to authorized persons.

Exception No. 2: Additional switches that act only to put emergency lights into operation but not disconnect them shall be permissible.

Switches connected in series or 3- and 4-way switches shall not be used.

700.21 Switch Location. All manual switches for controlling emergency circuits shall be in locations convenient to authorized persons responsible for their actuation. In facilities covered by Articles 518 and 520, a switch for controlling emergency lighting systems shall be located in the lobby or at a place conveniently accessible thereto.

In no case shall a control switch for emergency lighting be placed in a motion-picture projection booth or on a stage or platform.

Exception: Where multiple switches are provided, one such switch shall be permitted in such locations where arranged so that it can only energize the circuit but cannot de-energize the circuit.

700.22 Exterior Lights. Those lights on the exterior of a building that are not required for illumination when there is sufficient daylight shall be permitted to be controlled by an automatic light-actuated device.

700.23 Dimmer and Relay Systems. A dimmer or relay system containing more than one dimmer or relay and listed for use in emergency systems shall be permitted to be used as a control device for energizing emergency lighting circuits. Upon failure of normal power, the dimmer or relay system shall be permitted to selectively energize only those branch circuits required to provide minimum emergency illumination using a control bypass function. Where the dimmer or relay system is fed by a normal/emergency power source from an upstream transfer switch, normal power sensing for this function shall be permitted to be from a normal-only power source upstream of the transfer switch. All branch circuits supplied by the dimmer or relay system cabinet shall comply with the wiring methods of Part II of Article 700.

EXHIBIT 700.10 An example of a label for a dimmer system that is listed for emergency system use. *(Courtesy of Electronic Theatre Controls, Inc.)*

Dimmer systems that are listed for emergency system use include a method to sense failure of normal power and selectively energize branch circuits fed from the dimmer cabinet, regardless of the setting of control switches or panels normally used to control the dimmer system. Dimmer systems usually are supplied by a feeder that is transferred from the normal system to the emergency system by a transfer switch. See Exhibit 700.10.

700.24 Directly Controlled Emergency Luminaires. Where emergency illumination is provided by one or more directly controlled emergency luminaires that, upon loss of normal power, respond to an external control input to establish the required emergency illumination level, such directly controlled emergency luminaries shall be listed for use in emergency systems. Luminaires that are energized to the required emergency illumination level by disconnection of their control input by a listed emergency lighting control device shall not be required to be listed for use in emergency systems.

Directly controlled emergency luminaires are those containing any type of control input that is used in setting the luminaire to the required emergency illumination level upon failure of normal power and emergency power is present. This control input can be as simple as built-in sensing of normal power. It can also be an analog control input such as 0–10 volt or a more complex digital input. Some types of directly controlled emergency luminaires force their output to full brightness by disconnection of the control input from the normal control system using an automatic load control relay or other listed bypass device. Other types rely on an active signal from an emergency control system to set the required illumination level. Section 700.24 recognizes that input or loss of input qualifies as direct control of the emergency luminaires. Required listing for use in emergency systems of directly controlled emergency luminaires and controlling devices provides evaluation for predictable operation and reliability under the wide variety of conditions that might be present at failure of normal power.