520.64 Portable Strips. Portable strips shall be constructed in accordance with the requirements for border lights and proscenium sidelights in 520.44(A). The supply cable shall be protected by bushings where it passes through metal and shall be arranged so that tension on the cable will not be transmitted to the connections.

Informational Note No. 1: See 520.42 for wiring of portable strips.

Informational Note No. 2: See 520.68(A)(4) for insulation types required on single conductors.

520.65 Festoons. Joints in festoon wiring shall be staggered. Where such lampholders have terminals of a type that puncture the insulation and make contact with the conductors, they shall be attached only to conductors of the stranded type. Lamps enclosed in lanterns or similar devices of combustible material shall be equipped with guards.

Staggering joints in festoon wiring ensures that connections are not opposite one another. Joints that are not staggered could cause sparking due to improper insulation or unraveling of insulation, which, in turn, could ignite lanterns or other combustible material enclosing lamps. Where lampholders have terminals that puncture the conductor insulation to make contact with the conductors, stranded conductors must be used.

See also

Article 100 for the definition of *festoon lighting*

520.66 Special Effects. Electrical devices used for simulating lightning, waterfalls, and the like shall be constructed and located so that flames, sparks, or hot particles cannot come in contact with combustible material.

520.67 Multipole Branch-Circuit Cable Connectors. Multipole branch-circuit cable connectors, male and female, for flexible conductors shall be constructed so that tension on the cord or cable is not transmitted to the connections. The female half shall be attached to the load end of the power supply cord or cable. The connector shall be rated in amperes and designed so that differently rated devices cannot be connected together; however, a 20-ampere T-slot receptacle shall be permitted to accept a 15-ampere attachment plug of the same voltage rating. Alternating-current multipole connectors shall be polarized and comply with 406.7 and 406.10.

Informational Note: See 400.14 for pull at terminals.

520.68 Conductors for Portables.

(A) Conductor Type.

(1) General. Flexible conductors, including cable extensions, used to supply portable stage equipment shall be listed extra-hard usage cords or cables.

(2) Protected Applications. Listed, hard usage (junior hard service) cord or cable shall be permitted where all of the following conditions are met:

(1) The cord or cable is protected from physical damage by attachment over its entire length to a pipe, tower, truss, scaffold, or other substantial support structure, or installed in a location that inherently prevents physical damage to the cord.
(2) The cord or cable is connected to a branch circuit protected by an overcurrent protective device rated at not over 20 amperes.
(3) The cord or cable does not exceed 30 m (100 ft) in length.

(3) Stand Lamps. Listed, hard usage cord shall be permitted to supply stand lamps where the cord is not subject to physical damage and is protected by an overcurrent device rated at not over 20 amperes.

One of the most common stand lamps is a ghostlight, as shown in Exhibit 520.8. Ghostlights typically are placed on a stage outside of performance and rehearsal times to keep the theater from being in total darkness.

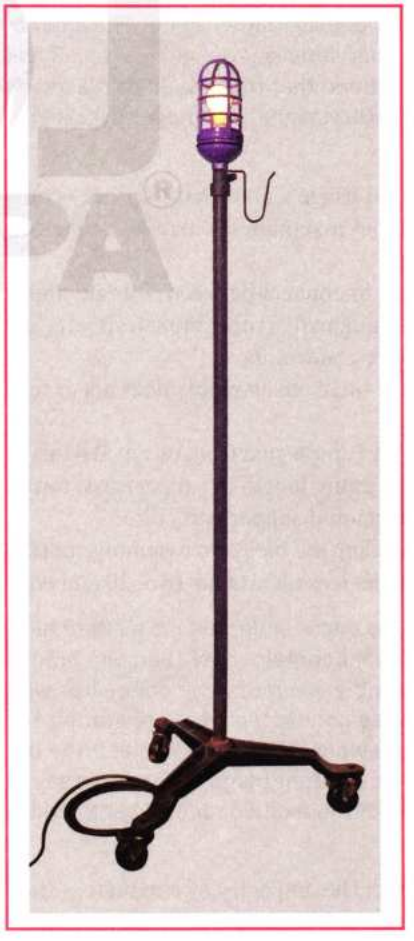

EXHIBIT 520.8 A stand lamp known as a ghostlight. *(Courtesy of Behind the Scenes Foundation)*