(4) Luminaire Supply Cords. Listed hard usage supply cords shall be permitted to supply luminaires if all of the following conditions are met:

(1) The supply cord is not longer than 2.0 m (6.6 ft).
(2) The supply cord is attached at one end to the luminaire or a luminaire-specific listed connector that mates with a panel-mounted inlet on the body of the luminaire.
(3) The supply cord is protected by an overcurrent protective device of not more than 20 amperes.
(4) The luminaire is listed.
(5) The supply cord is not subject to physical damage.

(5) High-Temperature Applications. A special assembly of conductors in sleeving not longer than 1.0 m (3.3 ft) shall be permitted to be employed in lieu of flexible cord if the individual wires are stranded and rated not less than 125°C (257°F) and the outer sleeve is glass fiber with a wall thickness of at least 0.635 mm (0.025 in.).

Portable stage equipment requiring flexible supply conductors with a higher temperature rating where one end is permanently attached to the equipment shall be permitted to employ alternate conductors as determined by a qualified testing laboratory and recognized test standards.

Stage equipment, such as stage lighting fixtures, often operate at elevated temperatures. High-temperature (150°C to 250°C), extra-hard-usage cords are not generally available. The alternative use of conductors in a glass fiber sleeve is limited to 3.3 feet in length to reduce the likelihood that they would be placed on the floor or other area where they might be damaged by traffic or moving scenery.

(6) Breakouts. Listed, hard usage (junior hard service) cords shall be permitted in breakout assemblies where all of the following conditions are met:

(1) The cords are utilized to connect between a single multipole connector containing two or more branch circuits and multiple 2-pole, 3-wire connectors.
(2) The longest cord in the breakout assembly does not exceed 6.0 m (20 ft).
(3) The breakout assembly is protected from physical damage by attachment over its entire length to a pipe, truss, tower, scaffold, or other substantial support structure.
(4) All branch circuits feeding the breakout assembly are protected by overcurrent devices rated at not over 20 amperes.

These requirements apply to multiconductor cable assemblies with multipole connectors that contain more than one branch circuit. The breakout assembly is a multipole connector with several pendant receptacles connected to it, separating the multiple branch circuits into individual branch circuits. The use of a similar arrangement of pendant plugs to form a break-in assembly on the other end of the multiconductor cable is also possible.

(B) Conductor Ampacity. The ampacity of conductors shall be as given in 400.5, except multiconductor, listed, extra-hard usage portable cords that are not in direct contact with equipment containing heat-producing elements shall be permitted to have their ampacity determined by Table 520.44(C)(2)(1). Maximum load current in any conductor with an ampacity determined by Table 520.44(C)(2)(1) shall not exceed the values in Table 520.44(C)(2)(1). Where the ampacity adjustment factors of Table 520.44(C)(2)(2) are applied for more than three current-carrying conductors in a portable cord, the load diversity shall be 50 percent or less.

Exception: Where alternate conductors are allowed in 520.68(A)(5), their ampacity shall be as given in the appropriate table in this Code for the types of conductors employed.

Listed portable, multiconductor cable is permitted to be sized in accordance with Table 520.44(C)(2)(1) and Table 520.44(C)(2)(2), similar to the method used for border light cable. A cable, used in lieu of a connector strip, directly above heat-producing equipment should be spaced sufficiently above that equipment to avoid the elevated temperatures or should be sized in accordance with 400.5.

(C) Overcurrent Protection. Overcurrent protection of conductors for portables shall comply with 240.5.

N **(D) Special-Purpose Multicircuit Cable Systems.** Special-purpose multicircuit cable systems shall comply with the following requirements:

(1) Branch circuits shall be rated at not more than 20 amperes and not more than 150 volts to ground.
(2) Trunk cable types shall be extra-hard usage (hard service) or hard usage (junior hard service).
(3) The ampacity of trunk cables shall be determined in accordance with Table 520.44(C)(2)(1).
(4) Trunk cables, breakout assemblies, and multicircuit enclosures shall be listed.
(5) Section 406.4(F) shall not apply to multicircuit, multipole plugs or receptacles that are part of a special-purpose multicircuit cable system.
(6) All multicircuit, multipole connectors shall be clearly marked with the voltage of the branch circuits serviced by the connector.
(7) Installation and operation shall be performed by qualified persons.

520.69 Adapters. Adapters, two-fers, and other single- and multiple-circuit outlet devices shall comply with 520.69(A), (B), and (C).

(A) No Reduction in Current Rating. Each receptacle and its corresponding cable shall have the same current and voltage rating as the plug supplying it. It shall not be utilized in a stage circuit with a greater current rating.

(B) Connectors. All connectors shall be wired in accordance with 520.67.