Informational Note No. 3: See UL 1309A, *Outline of Investigation for Cable for Use in Mobile Installations*, for information on construction, testing, and marking of Type P cable.

Informational Note No. 4: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of cable fittings.

Δ **(2) Flexible Connections.** Where flexibility is necessary to minimize the transmission of vibration from equipment during operation or to allow for movement after installation during maintenance, one or more of the following wiring methods shall be permitted:

(1) Listed flexible metal fittings
(2) Flexible metal conduit with listed fittings
(3) Interlocked armor Type MC cable with listed fittings
(4) Type P cable
(5) Type TC-ER or Type TC-ER-HL cable
(6) Type ITC-ER or Type ITC-HL cable
(7) Type PLTC-ER cable
(8) Liquidtight flexible metal conduit with listed fittings
(9) Liquidtight flexible nonmetallic conduit with listed fittings
(10) Flexible cord in accordance with 505.17, terminated with a listed cord connector that maintains the type of protection of the terminal compartment
(11) For elevator use, an identified elevator cable of Type EO, Type ETP, or Type ETT, shown under the "use" column in Table 400.4 for "hazardous (classified) locations" and terminated with listed fittings

If flexible conduit is used, it shall be grounded in accordance with 505.30(A) and bonded in accordance with 505.30(B).

Δ **505.16 Sealing and Drainage.** Seals in conduit and cable systems shall comply with 505.16(A) through (E). Sealing compound shall be used in Type MI cable termination fittings to exclude moisture and other fluids from the cable insulation.

See also

501.15 commentary for further information regarding conduit and cable sealing for hazardous locations

Informational Note No. 1: See 505.16(C)(2)(c). Seals are provided in conduit and cable systems to minimize the passage of gases and vapors and prevent the passage of flames from one portion of the electrical installation to another through the conduit. Such communication through Type MI cable is inherently prevented by construction of the cable. Unless specifically designed and tested for the purpose, conduit and cable seals are not intended to prevent the passage of liquids, gases, or vapors at a continuous pressure differential across the seal. Even at differences in pressure across the seal equivalent to a few inches of water, there might be a slow passage of gas or vapor through a seal and through conductors passing through the seal.

Informational Note No. 2: See 505.16(D)(2). Temperature extremes and highly corrosive liquids and vapors can affect the ability of seals to perform their intended function.

Informational Note No. 3: Gas or vapor leakage and propagation of flames might occur through the interstices between the strands of standard stranded conductors larger than 2 AWG. Special conductor constructions, for example, compacted strands or sealing of the individual strands, are means of reducing leakage and preventing the propagation of flames.

(A) Zone 0. In Zone 0 locations, seals shall be located according to 505.16(A)(1), (A)(2), and (A)(3).

(1) Conduit Seals. Seals shall be provided within 3.05 m (10 ft) of where a conduit leaves a Zone 0 location. There shall be no unions, couplings, boxes, or fittings, except listed reducers at the seal, in the conduit run between the seal and the point at which the conduit leaves the location.

Exception: A rigid unbroken conduit that passes completely through the Zone 0 location with no fittings less than 300 mm (12 in.) beyond each boundary shall not be required to be sealed if the termination points of the unbroken conduit are in unclassified locations.

(2) Cable Seals. Seals shall be provided on cables at the first point of termination after entry into the Zone 0 location.

(3) Not Required to Be Explosionproof or Flameproof. Seals shall not be required to be explosionproof or flameproof.

(B) Zone 1. In Zone 1 locations, seals shall be located in accordance with 505.16(B)(1) through (B)(8).

(1) Type of Protection "d", "db", "e", or "eb" Enclosures. Conduit seals shall be provided within 50 mm (2 in.) for each conduit entering enclosures having type of protection "d", "db", "e", or "eb".

Exception No. 1: Where the enclosure having type of protection "d" or "db" is marked to indicate that a seal is not required.

Exception No. 2: For type of protection "e" or "eb", conduit and fittings employing only NPT to NPT raceway joints or fittings listed for type of protection "e" or "eb" shall be permitted between the enclosure and the seal, and the seal shall not be required to be within 50 mm (2 in.) of the entry.

Informational Note: Examples of fittings employing other than NPT threads include conduit couplings, capped elbows, unions, and breather drains.

Exception No. 3: For conduit installed between type of protection "e" or "eb" enclosures employing only NPT to NPT raceway joints or conduit fittings listed for type of protection "e" or "eb", a seal shall not be required.

(2) Explosionproof Equipment. Conduit seals shall be provided for each conduit entering explosionproof equipment according to 505.16(B)(2)(a), (B)(2)(b), and (B)(2)(c).

(a) In each conduit entry into an explosionproof enclosure where either of the following conditions apply:

(1) The enclosure contains apparatus, such as switches, circuit breakers, fuses, relays, or resistors that may produce arcs,