and (C) shall be permitted to be marked in accordance with 500.8(C) and Table 500.8(C)(4).

(E) Threading. The supply connection entry thread form shall be NPT or metric. Conduit and fittings shall be made wrenchtight to prevent sparking when the fault current flows through the conduit system and to ensure the integrity of the conduit system. Equipment provided with threaded entries for field wiring connections shall be installed in accordance with 506.9(E)(1) or (E)(2) and with (E)(3).

(1) Equipment Provided with Threaded Entries for NPT-Threaded Conduit or Fittings. For equipment provided with threaded entries for NPT-threaded conduit or fittings, listed conduit fittings or listed cable fittings shall be used. All NPT-threaded conduit and fittings shall be threaded with a National (American) Standard Pipe Taper (NPT) thread.

Informational Note: See ASME B1.20.1, *Pipe Threads, General Purpose (Inch)*, for thread specifications for NPT threads.

(2) Equipment Provided with Threaded Entries for Metric-Threaded Fittings. For equipment with metric-threaded entries, listed conduit fittings or listed cable fittings shall be used. Such entries shall be identified as being metric, or listed adapters to permit connection to conduit or NPT-threaded fittings shall be provided with the equipment and shall be used for connection to conduit or NPT-threaded fittings. Metric-threaded fittings installed into equipment entries shall be made up with at least five threads fully engaged.

(3) Unused Openings. All unused openings shall be closed with blanking elements or close-up plugs that are listed for the location and will maintain the type of protection. Thread engagement shall comply with the requirements of 506.9(E)(1) or (E)(2).

Δ **(F) Optical Fiber Cables.** An optical fiber cable, with or without current-carrying conductors (hybrid optical fiber cable), shall be installed to address the associated fire hazard and sealed to address the associated explosion hazard in accordance with 506.15 and 506.16.

The requirements for fiber optic cables with conductors capable of carrying current (including those that are grounded) are required to follow the general wiring and sealing methods for Zone 20, 21, or 22 locations.

Δ **(G) Equipment Involving Optical Radiation.** For equipment involving sources of optical radiation (such as laser or LED sources) in the wavelength range from 380 nm to 10 µm, the risk of ignition from optical radiation shall be considered for all electrical parts and circuits that might be exposed to the radiation, both inside and outside the optical equipment. This includes optical equipment, which itself is located outside the explosive atmosphere but its emitted optical radiation enters such atmospheres.

Informational Note: See ANSI/UL 60079-28, *Explosive Atmospheres — Part 28: Protection of Equipment and Transmission Systems Using Optical Radiation*, for information on types of protection that can be applied to minimize the risk of ignition in explosive atmospheres from optical radiation.

Exception: All luminaires (fixed, portable, or transportable) and hand lights intended to be supplied by mains (with or without galvanic isolation) or powered by batteries, with any continuous divergent light source, including LEDs, shall be excluded from this requirement.

506.15 Wiring Methods. Wiring methods shall maintain the integrity of the protection techniques and shall comply with 506.15(A), (B), or (C).

Informational Note: See Article 100 for the definition of *restricted industrial establishment [as applied to hazardous (classified) locations]*.

Δ **(A) Zone 20.** In Zone 20 locations, the following wiring methods shall be permitted:

(1) Threaded rigid metal conduit (RMC) or threaded intermediate metal conduit (IMC).
(2) Type MI cable terminated with fittings listed for the location. Type MI cable shall be installed and supported in a manner to avoid tensile stress at the termination fittings.

Exception No. 1: Type MI cable and fittings listed for Class II, Division 1 locations shall be permitted to be used.

Exception No. 2: Equipment identified as intrinsically safe "ia" shall be permitted to be connected using the wiring methods identified in 504.20.

(3) In restricted industrial establishments, Type MC-HL cable listed for use in Zone 20 locations, with a continuous corrugated metallic sheath, an overall jacket of suitable polymeric material, and a separate equipment grounding conductor(s) in accordance with 250.122, and terminated with fittings listed for the application. Type MC-HL cable shall be installed in accordance with Part II of Article 330.

Exception: Type MC-HL cable and fittings listed for Class II, Division 1 locations shall be permitted to be used.

(4) In restricted industrial establishments, and where the cable is not subject to physical damage, Type ITC-HL cable listed for use in Zone 1 or Class I, Division 1 locations, with a gas/vaportight continuous corrugated metallic sheath and an overall jacket of suitable polymeric material, and terminated with fittings listed for the application. Type ITC-HL cable shall be installed in accordance with 335.4.
(5) Fittings and boxes shall be identified for use in Zone 20 locations.

Exception: Boxes and fittings listed for Class II, Division 1 locations shall be permitted to be used.

(6) If flexible connections are necessary, liquidtight flexible metal conduit (LFMC) with listed fittings, liquidtight