



FIGURE 516.35 *Electrical Area Classification Around Enclosed Dipping and Coating Processes. [34:Figure 6.5]*

or grade level shall be classified as Class I, Division 2 or Class I, Zone 2, and electrical wiring and electrical utilization equipment located within this space shall be suitable for Class I, Division 2 locations or Class I, Zone 2 locations, whichever is applicable.

- (3) All other spaces adjacent to an enclosed dipping or coating process or apparatus shall be classified as nonhazardous for purposes of electrical installations.

516.36 Equipment and Containers in Ventilated Areas. Open containers, supply containers, waste containers, and solvent distillation units that contain Class I liquids shall be located in areas ventilated in accordance with 516.4.

516.37 Luminaires. For printing, coating, and dipping equipment where the process area is enclosed by glass panels that are sealed to confine vapors and mists to the inside of the enclosure, luminaires that are attached to the walls or ceilings of a process enclosure and that are located outside of any classified area shall be permitted to be of general purpose construction. Such luminaires shall be serviced from outside the enclosure.

Luminaires that are attached to the walls or ceilings of a process enclosure, are located within the Class I, Division 2 or Class I, Zone 2 location, and are separated from the process area by glass panels that are sealed to confine vapors and mists shall be suitable for use in that location. Such fixtures shall be serviced from outside the enclosure.

516.38 Wiring and Equipment Not Within Hazardous (Classified) Locations.

(A) Wiring. Fixed wiring above hazardous (classified) locations shall be permitted to be one or more of the following:

- (1) Rigid metal conduit (RMC) or intermediate metal conduit (IMC) with listed threaded or threadless fittings, or electrical metallic tubing (EMT) or electrical nonmetallic tubing (Type ENT) with listed fittings.
- (2) Rigid polyvinyl chloride conduit (PVC) or reinforced thermosetting resin conduit (RTRC).
- (3) Type MC cable or Type TC cable with listed fittings.
- (4) Type MI cable terminated with listed fittings and installed and supported to avoid tensile stress.
- (5) Cellular metal floor raceways only to supply ceiling outlets or as extensions to the area below the floor of a hazardous (classified) location. If cellular metal raceways are used, they shall not have connections leading into or passing through the hazardous (classified) location unless suitable seals are provided.

Δ (B) Equipment. Equipment that is capable of producing arcs, sparks, or particles of hot metal, such as lamps and lampholders for fixed lighting, cutouts, switches, receptacles, motors, or other equipment having make-and-break or sliding contacts, where installed above a classified location or above a location where freshly finished goods are handled, shall be of the totally enclosed type or be constructed to prevent the escape of sparks or hot metal particles.

Δ 516.40 Static Electric Discharges. All persons and all electrically conductive objects, including any metal parts of the process equipment or apparatus, containers of material, exhaust ducts, and piping systems that convey flammable or combustible liquids, shall be electrically grounded.

Provision shall be made to dissipate static electric charges from all nonconductive substrates in printing processes.

Informational Note: See NFPA 77, *Recommended Practice on Static Electricity*, for information on reducing the risk of ignition from electrostatic discharges.