

Informational Note No. 1: See NFPA 33, *Standard for Spray Application Using Flammable or Combustible Materials*, for information on occupancy, ventilation, fire protection, and permitting for spray application operations in membrane enclosures. This document limits spray application operations within both outdoor and indoor temporary membrane enclosures, as well as use and time constraints. The risks to people and property are unique when spray painting within the confined spaces of temporary membrane enclosures.

Informational Note No. 2: See NFPA 33, *Standard for Spray Application Using Flammable or Combustible Materials*, Section 18.6, for the limits of material used in a vertical plane for membrane enclosures.

Informational Note No. 3: See NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*, Test Method 2, for construction information.

Informational Note No. 4: See NFPA 33, *Standard for Spray Application Using Flammable or Combustible Materials*, 18.3.2.1.1, for membrane installation beneath sprinklers.

Informational Note No. 5: See NFPA 13, *Standard for the Installation of Sprinkler Systems*, 8.15.15, for information on the protection of membrane structures.

**516.23 Electrical and Other Sources of Ignition.** Electrical wiring and utilization equipment used within the classified areas inside and outside of membrane enclosures during spray painting shall be suitable for the location and shall comply with all of the following:

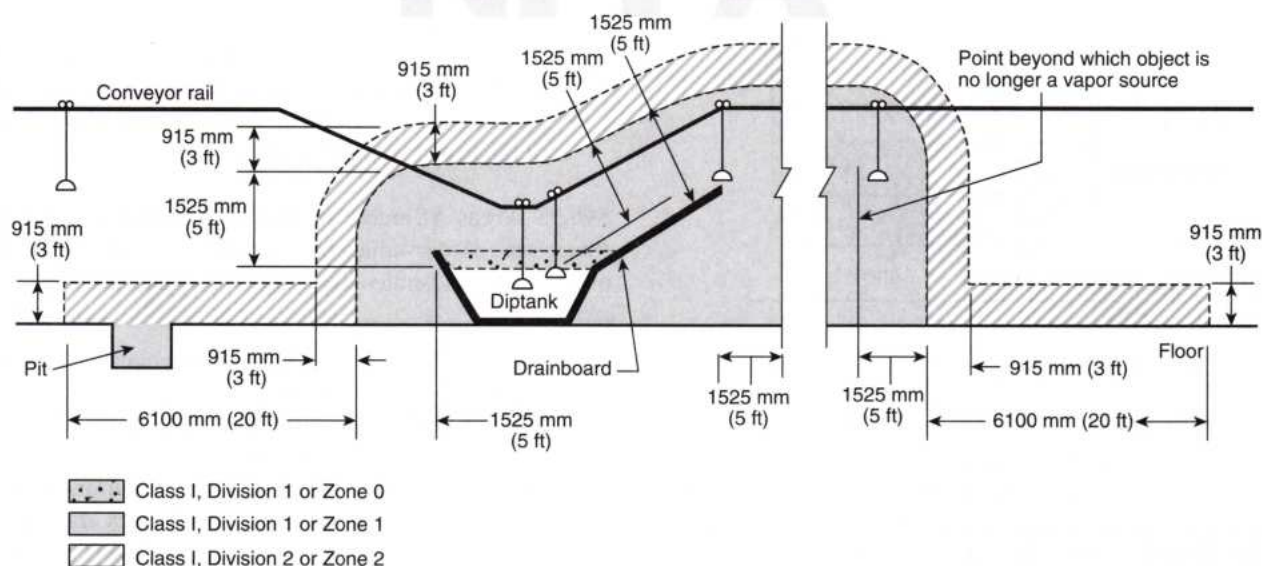
- (1) All power to the workpiece shall be removed during spray painting.
- (2) Workpieces shall be grounded.
- (3) Spray paint equipment shall be grounded.
- (4) Scaffolding shall be bonded to the workpiece and grounded by an approved method.

## Part V. Printing, Dipping, and Coating Processes

**Δ 516.29 Classification of Locations.** Classification is based on quantities of flammable vapors, combustible mists, residues, dusts, or deposits that are present or might be present in quantities sufficient to produce ignitable or explosive mixtures with air. Electrical wiring and electrical utilization equipment located adjacent to open processes shall comply with the requirements as follows. Examples of these requirements are illustrated in Figure 516.29(1), Figure 516.29(2), Figure 516.29(3), and Figure 516.29(4).

Informational Note: See NFPA 33, *Standard for Spray Application Using Flammable or Combustible Materials*, Chapter 6, and NFPA 34, *Standard for Dipping, Coating, and Printing Processes Using Flammable or Combustible Liquids*, Chapter 6, for additional information.

- (1) Electrical wiring and electrical utilization equipment located in any sump, pit, or below grade channel that is within 7620 mm (25 ft) horizontally of a vapor source, as defined by this standard, shall be suitable for Class I, Division 1 or Class I, Zone 1 locations. If the sump, pit, or channel extends beyond 7620 mm (25 ft) of the vapor source, it shall be provided with a vapor stop, or it shall be classified as Class I, Division 1 or Class I, Zone 1 for its entire length. [34:6.4.1]
- (2) Electrical wiring and electrical utilization equipment located within 1525 mm (5 ft) of a vapor source shall be suitable for Class I, Division 1 or Class I, Zone 1 locations. The space inside a dip tank, ink fountain, ink reservoir, or ink tank shall be classified as Class I, Division 1 or Class I, Zone 0, whichever is applicable.



**FIGURE 516.29(1)** Electrical Area Classification for Open Dipping and Coating Processes Without Vapor Containment or Ventilation. [34:Figure 6.4(a)]