

Chapter E 514

GASOLINE DISPENSING AND SERVICE STATIONS

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E 514.01 Definitions. (1) This classification shall include locations where gasoline or other volatile flammable liquids or liquefied flammable gases are transferred to the fuel tanks (including auxiliary fuel tanks) of self-propelled vehicles.

(2) Other areas used as lubricatoriums, service rooms and repair rooms, and offices, salesrooms, compressor rooms and similar locations shall conform to chapters E 510 and E 511 with respect to electrical wiring and equipment.

Note 1: Where the authority enforcing the code can satisfactorily determine that flammable liquids having a flash point below 100° F such as gasoline will not be handled, he may classify such an area as non-hazardous.

Note 2: For further information regarding safeguards for gasoline dispensing and service stations see NFPA Flammable Liquids Code (No. 30).

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 514.02 Hazardous areas. (1) The space within the dispenser up to 4 feet from its base and the space within 18 inches extending horizontally from the dispenser up to 4 feet from its base shall be considered a class I, division 1 location. This classification shall also apply to any space below the dispenser which may contain electrical wiring or equipment.

(2) In an outside location, any area (excluding class I, division 1, but including buildings not suitably cut off) within 20 feet horizontally from the exterior enclosure of any dispensing pump shall be considered class I, division 2 location which will extend to a level 18 inches above driveway or ground level.

(3) In an outside location, any area (excluding class I, division 1, but including buildings not suitably cut off) within 10 feet horizontally from any tank fill-pipe shall be considered class I, division 2 location which shall extend upward to a level 18 inches above driveway or ground level.

(4) Electrical wiring and equipment, any portion of which is below the surface of areas defined as class I, division 1 or division 2 in subsections (1), (2), (3) above shall be considered to be within a class I, division 1 location which shall extend at least to the point of emergence above grade.

(5) The spherical volume within a 3 foot radius from point of discharge of any tank vent-pipe shall be considered a class I, division 1 location and the volume between 3 foot to 5 foot radius from point of discharge of a vent shall be considered a class I, division 2 location. For any vent that does not discharge upward, the cylindrical volume below both the division 1 and 2 locations extending to the

ground shall be considered a class I, division 2 location. The hazardous area shall not extend beyond an unpierced wall.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 514.03 Wiring and equipment within hazardous areas. All electrical equipment and wiring within the hazardous areas defined in section E 514.02 shall conform to applicable provisions of chapter E 501.

Note: For special requirements for conductor insulation, see section E 501.13.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 514.04 Wiring and equipment above hazardous areas. Wiring and equipment above hazardous areas defined in section E 514.02 shall conform to sections E 511.05 and E 511.06.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 514.05 Circuit disconnects. Each circuit leading to or through a dispensing pump shall be provided with a switch or other acceptable means to disconnect simultaneously from the source of supply all conductors of the circuit including the grounded neutral, if any.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 514.06 Sealing. (1) An approved seal shall be provided in each conduit run entering or leaving a dispenser or any cavities or enclosures in direct communication therewith. The sealing fitting shall be the first fitting after the conduit emerges from the earth or concrete.

Note: This paragraph states that the first fitting after the conduit emerges from the slab or from the concrete must be the sealing fitting. Above the fitting, the remainder of the wiring and equipment is required to conform to the rules for the area classification involved.

(2) Additional seals shall be provided in conformance with section E 501.05 and sections E 501.05 (1) (c) and E 501.05 (2) (b) shall apply to horizontal as well as to vertical boundaries of the defined hazardous areas.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 514.07 Grounding. Metallic portions of dispensing pumps, metallic raceways, and all non-current-carrying portions of electrical equipment, regardless of voltage, shall be grounded as provided in chapter E 250.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.

E 514.08 Underground wiring. Underground wiring shall be installed in rigid metal conduit, or, where buried under not less than 2 feet of earth, may be installed in non-metallic conduit conforming to the requirements of section E 347.02 (3). Where non-metallic conduit is used, an additional grounding conductor shall be included to provide for metallic continuity of the raceway system and for grounding of noncurrent carrying metallic parts of equipment.

History: Cr. Register, January, 1968, No. 145, eff. 2-1-68.