

F64 – 13

605.11.1, 605.11.2

Proponent: Steve Thomas, Colorado Code Consulting, LLC representing self
(sthomas@coloradocode.net)

Revise as follows:

~~605.11.1 Marking. Marking is required on interior and exterior direct current (DC) conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes and disconnects.~~

~~605.11.1.1 Materials. The materials used for marking shall be reflective, weather resistant and suitable for the environment. Marking as required in Sections 605.11.1.2 through 605.11.1.4 shall have all letters capitalized with a minimum height of 3/8 inch (9.5 mm) white on red background.~~

~~605.11.1.2 Marking content. The marking shall contain the words "WARNING: PHOTOVOLTAIC POWER SOURCE."~~

~~605.11.1.3 Main service disconnect. The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the disconnect is operated.~~

~~605.11.1.4 Location of marking. Marking shall be placed on interior and exterior DC conduit, raceways, enclosures and cable assemblies every 10 feet (3048 mm), within 1 foot (305 mm) of turns or bends and within 1 foot (305 mm) above and below penetrations of roof/ceiling assemblies, walls or barriers.~~

~~605.11.2 Locations of DC conductors. Conduit, wiring systems, and raceways for photovoltaic circuits shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities. Conduit runs between sub-arrays and to DC combiner boxes shall be installed in a manner that minimizes the total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes shall be located such that conduit runs are minimized in the pathways between arrays. DC wiring shall be installed in metallic conduit or raceways when located within enclosed spaces in a building. Conduit shall run along the bottom of load bearing members.~~

Reason: The language in these sections relate to the installation of the electrical system for photovoltaic systems. They do not belong in the fire code. The language in this section is similar to that of the NEC. They are already included in the National Electrical Code (NEC), NFPA 70 Article 690.31. The NEC is already referenced in Chapter 27 of the IBC. It states "Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of NFPA 70". Section 102.4 of the IFC states that the design and construction of buildings shall comply with the IBC. Therefore, the requirements are duplicative and are not needed in the IFC. By having similar requirements in two different codes, there is a great potential for conflicts.

It is my understanding that the original proponent of this section intended to remove the requirements after the NEC adopted requirements for PV electrical installations. They have made those additions and therefore they should be removed from the IFC.

In addition, the ICC decided many years ago to not include electrical installation requirements in any of its codes. We should maintain this position in the fire code as well.

Cost Impact: This change will not affect the cost of construction.

F64-13

Public Hearing: Committee:
Assembly:

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605.11.1-F-THOMAS