

Fire Safety Requirements/Fire Fighter Access:

Solar arrays which function as building components (building integrated) shall comply with the Building Code, and shall not reduce the required fire-resistance or fire classification of the structure. Examples include but are not limited to: curtain walls, membrane roofing, sky lights and solar windows.

On residential structures, solar arrays shall maintain a minimum clearance of 24" from all edges, peaks, valleys, roof access points, skylights.

Exc: A 24" minimum clearance shall not be required if the roof can be accessed for fire-fighting efforts from the north or other adjacent side of the array.

In addition, a minimum 24" wide pathway shall be maintained to access skylights, roof hatches, HVAC equipment or other equipment requiring maintenance. On commercial structures a 36" wide pathway shall be maintained from all edges, peaks, valleys, roof access points, skylights. In addition, a minimum 36" wide pathway shall be maintained to access skylights, roof hatches, HVAC equipment or other equipment requiring maintenance, this pathway shall be directly over roof structural members. On large systems, an intermediate pathway 36" wide shall be provided for every 150' of array. The 150' shall be measured in one direction and include offset modules or angled installations. Maximum square footage of an array shall not exceed 22,500sq. ft. without the installation of an intermediate pathway. (See attached examples for best design practices).

Installation of conductors, conduits, combiner boxes, disconnects shall be made in such a manner as to not create a tripping hazard or impede fire-fighter access. Raceways that cross a required pathway shall be bridged to avoid tripping hazards. Raceways shall be visible marked D/C conductors in a manner suitable for the environment. Raceways containing dc conductors that are run through the roof into the building shall be maintained a minimum of 18" below the roof decking.

Each combiner box shall be installed with a visible D/C disconnect. This disconnect shall be integral or immediately adjacent to the combiner box. This disconnect shall be marked " Array disconnect 1 of ____ ". Letters shall be a minimum of 1" in height, suitable for the environment and red in color.

A placard shall be posted at the ac service disconnecting means that accurately designates the location of all combiner box disconnects, inverters and dc raceways. The placard shall be legible, durable and suitable for the environment.