690.2
4-4, 4-173

ROP as written:

Direct Current (dc) Combiner. A device used in the PV Source and PV Output circuits to combine two or more dc circuit inputs and provide one dc circuit output.

Recommended Language

Direct Current (dc) Combiner. A ~~device~~ junction box or an enclosed and listed assembly of accessible components used in the PV Source and PV Output circuits to combine two or more dc circuit inputs and provide one or more dc circuit outputs.

Comments:

1. **Cable Assemblies**: The use of listed (UL 6703) cable assemblies (aka harnesses) which include in-line fusing and electrical taps have become a popular method of combining strings before terminating into a combiner box. The language as written could be interpreted to include cable harnesses in the definition of Direct Current (dc) Combiner. We don't believe this is the intent of the language. Further, there are designs that employ a split bus combiner box that technically have two outputs, FSLR uses them often. We recommend amending to make it clear that the above definition is meant to define an enclosed assembly of fuse holders, terminals, bus bar, power distribution blocks etc and not listed cable harnesses.

a. As an option, add an informational "The term device in the above definition is meant to apply to a box containing discrete components whose purpose is to provide a safe and serviceable means to aggregate PV Source or PV Output circuits. It is not intended to described listed cable assemblies or the like".