



The 2015 edition of NFPA 70E reflects a major shift in how stakeholders evaluate electrical risk. In support of this, new definitions were added to Article 100, including Hazard, Hazardous, Risk, and Risk Assessment. Throughout the document changes were made to provide clarity to users, such as changing “arc flash hazard analysis” to “arc flash risk assessment,” “shock hazard analysis” to “shock risk assessment,” “electrical hazard analysis” to “electrical hazard risk assessment,” and “hazard identification and risk assessment” to “risk assessment.” These global changes ensure consistent use of these terms throughout the document and provide consistency between NFPA 70E and other standards that address hazards and risk.

1. Terminology Changes: PPE Category has replaced Hazard Risk Category (HRC)

Hazard/risk category [HRC] will now be referred to as PPE category. HRC 0, 1, 2, 3 and will be replaced with PPE Category 1, 2, 3 and 4. The minimum Arc Ratings stay the same 4, 8, 25 and 40 cal/cm²

Hazard Analysis now referred to as Risk Assessment, NFPA 70E 2015 edition defines Risk Assessment as “An overall process that identifies hazards, estimates the potential severity of injury or damage to health, estimates the likelihood of occurrence of injury or damage to health, and determines if protective measures are required.”

Risk Assessment is further examined in the footnote to Table 130.7(C)(15)(A)(a): “Hazard identification is one component of risk assessment. Risk assessment involves a determination of the likelihood of occurrence of an incident, resulting from a hazard that could cause injury or damage to health.”

2. **“Coverage” Requirements defined - 130.7(9)(d) Coverage.** Clothing shall cover potentially exposed areas as completely as possible. Shirt and coverall sleeves shall be fastened at the wrists, shirts shall be tucked into pants, and shirts, coveralls, and jackets shall be closed at the neck

3. Elimination of HRC 0 -

Hazard/risk category 0 has been removed from Table 130.7(C)(16) - Hazard/risk category 0 was deleted because the new PPE table only specifies work within the arc flash boundary. If there is no arc flash hazard, then no arc flash PPE is required and it is therefore not necessary on a table devoted to PPE. HRC 0 was eliminated, as the Committee felt that this table should only show requirements where arc-rated clothing was required. HRC 0 would mean the worker was outside the arc flash boundary and did not need arc-rated PPE or clothing.

There are still requirements when it comes to clothing - Clothing consisting of fabrics, zipper tapes, and findings made from flammable synthetic materials that melt at temperatures below 315C (600F)—such as acetate, acrylic, nylon, polyester, polyethylene, polypropylene, and spandex, either alone or in blends, shall not be used.

Table H.3(a) Summary of Specific Sections Describing PPE for Electrical Hazards where incident energies (IE) are known - Clothing: nonmelting or untreated natural fiber long-sleeve shirt and long pants or coverall are allowed when Incident energy exposures are only up to 1.2 cal/cm²

4. New Arc Flash PPE Category Tables: 130.7(C)(15)(a) and (b)

The NFPA 70E Technical Committee has agreed to a new format for choosing arc-rated clothing and PPE. The first table is used to determine if an arc flash hazard exists. If there is an arc flash hazard, then you would move to the second (new) table and choose the arc flash category of the recommended clothing and PPE.

Note: 130.5(3)(C) Arc Flash PPE. One of the following methods shall be used for the selection of PPE. Either, but not both, methods shall be permitted to be used on the same piece of equipment. The results of an incident energy analysis to specify an arc flash PPE Category in Table 130.7(C)(16) shall not be permitted. (you either use the info from your risk assessment to determine the level of PPE or use the tables to select PPE category)