

NFPA 70E® - Proposed 2018 Edition
Standard for Electrical Safety in the Workplace®
TIA Log No.: 1253R
Reference: Annex H.2
Comment Closing Date: April 13, 2017
Submitter: Rodney West, Schneider Electric

1. Revise Annex H.2 to read as follows:

H.2 Simplified Two-Category Clothing Approach for Use with ~~Table 130.5~~, Table 130.7(C)(15)(a), Table 130.7(C)(15)(b), and Table 130.7(C)(15)(c).

The use of Table H.2 is a simplified approach to provide minimum PPE for electrical workers within facilities with large and diverse electrical systems. The clothing listed in Table H.2 fulfills the minimum arc-rated clothing requirements of ~~Table 130.5(C)~~, Table 130.7(C)(15)(a), Table 130.7(C)(15)(b), and Table 130.7(C)(15)(c). The clothing systems listed in this table should be used with the other PPE appropriate for the arc flash PPE category [see *Table 130.7(C)(15)(c)*]. The notes to ~~Table 130.5(C)~~, Table 130.7(C)(15)(a), ~~and Table 130.7(C)(15)(b)~~, and Table 130.7(C)(15)(c) must apply as shown in those tables.

Table H.2 Simplified Two-Category, Arc-Rated Clothing System

Clothing ^a	Applicable Tasks <u>Situations</u>
Everyday Work Clothing Arc-rated long-sleeve shirt with arc-rated pants (minimum arc rating of 8) <i>or</i> Arc-rated coveralls (minimum arc rating of 8)	All arc flash PPE category 1 and arc flash PPE category 2 tasks listed in <u>Situations where a risk assessment indicates that PPE is required and where Table 130.5 130.7(C)(15)(a), and Table 130.7(C)(15)(b) specify arc flash PPE category 1 or 2^b</u>
Arc Flash Suit A total clothing system consisting of arc-rated shirt and pants and/or arc-rated coveralls and/or arc flash coat and pants (clothing system minimum arc rating of 40)	All Arc Flash PPE Category 3 and Arc Flash PPE Category 4 tasks listed in <u>Situations where a risk assessment indicates that PPE is required and where Table 130.5 130.7(C)(15)(a), and Table 130.7(C)(15)(b) specify arc flash PPE category 3 or 4^b</u>

^aNote that other PPE listed in ~~Table 130.7(C)(16)~~ 130.7(C)(15)(c), which include arc-rated face shields or arc flash suit hoods, arc-rated hard hat liners, safety glasses or safety goggles, hard hats, hearing protection, heavy-duty leather gloves, rubber insulating gloves and leather protectors could be required. The arc rating for a garment is expressed in cal/cm².

^bThe estimated available fault current capacities and fault clearing times are listed in the text of Table 130.7(C)(15)(a) and Table 130.7(C)(15)(b). ~~Various tasks are listed in Table 130.5. For tasks not listed, or for power systems with greater than the estimated short-circuit available fault current capacity or with longer than the assumed fault clearing times, or arcing durations, an arc flash risk assessment is required in accordance with 130.5. Table H.2 cannot be used and arc flash PPE must be determined and selected by means of an incident energy analysis in accordance with 130.5(G).~~

Substantiation: This TIA request is being submitted on behalf of a Task Group comprised of NFPA 70E technical committee members Rod West (TG Chair) Louis Barrios, Paul Dobrowsky, Jim Dollard, Mark McNellis, and the CSA Designated Representative, Daniel Roberts.

The purpose of Annex H.2 and associated Table H.2 is to provide a simplified approach when using 130.7(C)(15) Arc Flash PPE Category Method to determine minimum arc flash PPE requirements for electrical workers.

First and Second Revisions to the 2018 edition have revised the Arc Flash PPE Category Method from a four-table, stand-alone, task and equipment based method to a three-table, equipment based method that is used in conjunction with the arc flash risk assessment requirements of 130.5. Annex H.2 and Table H.2 were not revised to reflect this significant change and are unusable in their current format. The table references are incorrect and any references to tasks are confusing and misleading.

Emergency Nature: The proposed TIA meets the emergency criteria described in 5.4(a), (b), and (f) of the Regulations Governing the Development of NFPA Standards as follows:

- (a) The NFPA Standard contains an error or an omission that was overlooked during a regular revision process.

Annex H.2 and the associated Table H.2 contain both errors and omissions as noted above.

- (b) The NFPA Standard contains a conflict within the NFPA Standard or with another NFPA Standard.

Table H.2 currently directs the user to select the protective level of PPE based on task. This conflicts with the risk assessment requirements in 130.5 Arc Flash Risk Assessment and with the equipment based Arc Flash PPE Category Tables in 130.7(C)(15).

- (f) The proposed TIA intends to correct a circumstance in which the revised NFPA Standard has resulted in an adverse impact on a product or method that was inadvertently overlooked in the total revision process or was without adequate technical (safety) justification for the action.

The revisions proposed by this TIA are necessary as any attempt to apply the current requirements of Annex H.2 will have an adverse impact on worker safety during the performance of justified energized tasks that could involve exposure to an arc flash hazard. As noted above, in its current format Table H.2 is confusing and unusable. The proposed amendment will align and harmonize Annex H.2 and Table H.2 with the requirements in rest of the document.

Anyone may submit a comment by the closing date indicated above. To submit a comment, please identify the number of the TIA and forward to the [Secretary, Standards Council](#), 1 Batterymarch Park, Quincy, MA 02169-7471.