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**RE:** NFPA 70E 2024 Edition – Top Ten Changes

This memo is to identify the major changes within NFPA 70E 2024 edition.

### **1. Scope**

Similar to the NEC, each article within 70E now contains a scope located in the beginning of each article. The addition of a scope led to the need to renumber most sections.

For example, Article 110 for General Requirements for Electrical Safety Related Work Practices now has a 110.1 Scope: “This article covers the general requirements for electrical safety related work practices”.

### **2. Electric Shock**

Although this isn't a major change, it is edited 63 times within Chapter 1. This is to help avoid confusion with “Shock Wave” associated with Lung Protection boundary. New term is electric shock such as Electric Shock hazard; not just shock hazard.

### **3. Normal Operating Condition has additional requirement: Available Fault Current**

Article 110 has been re-arranged and new section 110.2 (B) is entitled “When Required”. Located within this article is an Exception #1. It actually has two changes. “When Required” Exception #1 says “Normal operation of electrical equipment” which is a change from “normal operating condition”.

Secondly, in addition to the existing 6 conditions such as: the equipment is properly installed, properly maintained, etc., a 7<sup>th</sup> condition has been added: the equipment is rated for the available fault current.

#### **4. Clarification of Electric Shock Boundaries**

The boundary for establishing an electrical safe condition is the “limited approach boundary”.

The boundary for requiring an energized work permit is the “restricted approach boundary” or potential exposure to an arc flash.

#### **5. Article 110.3(I) Additional Requirement: Emergency Response Plan**

Article 110.3(I) is Job Safety Planning and Job Briefing. Under Job Safety Planning, an additional requirement for the Emergency Response Plan was added.

#### **6. Testing at each “point of work”**

Section 120.6 Process of establishing an electrically safe work condition has item #7 which indicates “test for the absence of voltage”. It now indicates that you need to test where you are working; Test at “each point of work”. You can test upstream if you like but you must test where the individuals are working.

#### **7. Electric Shock Boundaries were edited**

Although it is very subtle, Tables 130.4(E)(a) for AC and 130.4(E)(b) for DC are modified. The restricted approach boundaries in Table 130.4(E)(a) were revised to correlate with OSHA’s minimum approach distances in OSHA 29 CFR 1910.269 Tables.

Minor modifications were made to the values in Column 2 of both the AC and DC tables to address rounding error.

Voltage rows were edited. 751 volts up to 5 kV; 5 kV up to 15 kV.

#### **8. Section 130.8(M) Reclosing Circuits After Protective Operation**

A reference to “qualified person” was added and the word “repetitive” was removed which could be interpreted as an allowance to reenergize at least once before determining the cause.

Circuits “shall not be manually re-energized until a qualified person or persons determines the equipment and circuit can be safely energized.” The reference to a device operation caused by an overload was moved to an exception.

#### **9. Table 130.7(C)(15)(b) Elimination of one DC table under Arc Flash PPE Categories for DC systems**

Recent studies have shown that the probability of sustaining an arc for 125 volts DC is minimal. Therefore, the upper part of the table was deleted that was for voltages from 100 to 250 volts dc.

The new parameters for the table and arc flash PPE categories are greater than 150 volts and  $\leq$  600 volts.

#### **10. New Informative Annex S: Assessing the Condition of Maintenance**

A new informative annex provides guidance to assist qualified workers in identifying sources of information that are useful when assessing the condition of maintenance of electrical equipment. Better source is the updated NFPA 70B 2023 edition: Standard for Electrical Equipment Maintenance.