

IEEE Guide for Performing Arc-Flash Hazard Calculations

Amendment 2: Changes to Clause 4

IEEE Industry Applications Society

Sponsored by the
Petroleum and Chemical Industry Committee

IEEE
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USA

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IEEE Std 1584™-2002)

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Petroleum and Chemical Industry Committee
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IEEE Industry Applications Society

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Abstract: Techniques for designers and facility operators to apply in determining the arc-flash hazard distance and the incident energy to which employees could be exposed during their work on or near electrical equipment are provided in IEEE Std 1584-2002 and IEEE Std 1584a-2004. Changes in Clause 4 (the analysis process), based on the experience of persons who have conducted many of these studies, are provided in this amendment.

Keywords: arc fault currents, arc-flash hazard, arc-flash hazard analysis, arc-flash hazard marking, arc-flash protection boundary, arc in enclosures, arc in open air, bolted fault currents, electrical hazard, IEEE 1584b, incident energy, personal protective equipment, protective device coordination study, short-circuit study, working distances

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Introduction

This introduction is not part of IEEE Std 1584b-2011, IEEE Guide for Performing Arc-Flash Hazard Calculations—Amendment 2: Changes to Clause 4.

It is hoped that the changes to Clause 4 will help improve the quality of the arc-flash studies being prepared for owners and other users by clarifying the wording to allow users to better understand the process.

This amendment revises Clause 4 dealing with the process of performing an arc-flash hazard calculations study. The revisions are based on the experiences of users of the guide with extensive experience in performing these studies since IEEE Std 1584-2002 was published in 2002.

When the guide was written, there was little experience in performing these studies. Now the Working Group members have more experience applying the guide and can enable more accurate studies by others by incorporating their knowledge into the guide.

Some of the existing wording in the guide has been found to be vague or open to interpretation. It is the intent of this amendment that the changes will improve the wording and make the standard easier to follow.

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