

# P1584

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**Type of Project:** Modify Existing Approved PAR

**PAR Request Date:** 07-Oct-2013

**PAR Approval Date:** 11-Dec-2013

**PAR Expiration Date:** 31-Dec-2017

**Status:** Modification to a Previously Approved PAR for the Revision of a Standard

**Root PAR:** P1584 **Approved on:** 12-Jun-2003

**Root Project:** 1584-2002

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**1.1 Project Number:** P1584

**1.2 Type of Document:** Guide

**1.3 Life Cycle:** Full Use

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**2.1 Title:** Guide for Performing Arc-Flash Hazard Calculations

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**3.1 Working Group:** Arc Flash Hazard Calculations Working Group (IAS/PCI/1584\_WG)

**Contact Information for Working Group Chair**

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**3.2 Sponsoring Society and Committee:** IEEE Industry Applications Society/Petroleum & Chemical Industry (IAS/PCI)

**Contact Information for Sponsor Chair**

**Name:** Dennis Bogh

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**4.1 Type of Ballot:** Individual

**4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot:** 10/2014

**4.3 Projected Completion Date for Submittal to RevCom:** 10/2015

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**5.1 Approximate number of people expected to be actively involved in the development of this project:** 75

**5.2 Scope:** This guide provides models and an analytical process to enable calculation of the predicted incident thermal energy and the arc-flash boundary. The process covers the collection of field data if necessary, consideration of power system operating scenarios, and calculation parameters. Applications include electrical equipment and conductors for three-phase alternating current (ac) voltages from 208 V to 15 kV. Calculations for single-phase ac systems and direct current systems are not a part of this guide, but some guidance and references are provided for those applications. Recommendations for personal protective equipment to mitigate arc flash hazards are not included in this guide.

**5.3 Is the completion of this standard dependent upon the completion of another standard:** No

**5.4 Purpose:** The purpose of the guide is to enable qualified person(s) to analyze power systems for the purpose of estimating the incident energy to which employees could be exposed during operation and maintenance work. Contractors and facility owners need this information to provide appropriate protection for employees in accordance with the requirements of applicable electrical workplace safety standards.

**5.5 Need for the Project:** Since the Guide was issued substantial research and testing has been performed by the IEEE/NFPA Collaboration on Arc Flash Research and Testing. The output of the collaboration will be given appropriate consideration by the WG for inclusion in the draft standard.

The first edition is now ten years old. In those years thousands of engineers have been performing the studies defined in the guide. The

experience gained by performing those studies will now be considered for inclusion in the draft standard.

**5.6 Stakeholders for the Standard:** Operators of facilities who need to provide better protection from the arc-flash hazard for their employees and contractors employees.

Consultants who perform arc-flash hazard calculation studies will be able to provide more accurate results to their clients.

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### **Intellectual Property**

**6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?:** No

**6.1.b. Is the Sponsor aware of possible registration activity related to this project?:** No

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**7.1 Are there other standards or projects with a similar scope?:** No

### **7.2 Joint Development**

**Is it the intent to develop this document jointly with another organization?:** No

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**8.1 Additional Explanatory Notes (Item Number and Explanation):** Items 5.5 and 8.1 have been updated.

A very thorough review is necessary to evaluate the test data to be provided by the Collaboration to make sure testing data to be included in the draft standard is applicable to real world equipment and conditions.