



CALL FOR PAPERS

Arc Flash & Isolation Safety Conference

Perth, Australia – 26th & 27th August 2015

We are looking for a number of presenters to submit an abstract and present their technical papers at this important industry event which has been created to promote best practice and help reduce the number of arc flash incidents in the Australia.

ARC FLASH – An arc flash is the explosive release of energy occurring when there is a phase-to-phase or phase-to-earth fault. It can be caused by various reasons including accidental contact, unsafe work procedures, corrosion, insulation failure or conductive dust or moisture/liquids. Heat generated by an electric arc is capable of reaching temperatures of around 1000°C, which can cause a significant amount of damage. The rapid heating of the air and vaporization of the conductive metals creates an intense pressure blast which exposes the electrical worker to shrapnel, air, vaporized metal, intense UV exposure and heat. Typical injuries resulting from arc flash include: burns, blindness, deafness, broken bones, lacerated and burnt skin, and damaged internal organs which can result in death or serious permanent disablement and disfigurement, exacerbated by the heat and intense UV light.

Arc flash is arguably one of the most topical issues being discussed today in the electrical engineering community in Australia (especially in the mining, utilities and manufacturing areas). Technology and safety procedures have significantly reduced most other forms of electrical injuries; however incidents related to arc flash have surfaced as one of the leading causes of injury and death to workers.

The technical aspects and physics associated with arc flash are still somewhat debatable. And there has been some concerns about the physics of electrical arcing faults being significantly different to those established by the USA with the NFPA 70E and the IEEE 1584 standards and the Canadian Standards Association (CSA) new arc flash safety standard CSA-Z462. Although arc flash is a contentious and critical issue in Australia there are still no official local standards that deal with arc flash safety.

ISOLATION SAFETY – In addition to arc flash incidents, electrical workers in Australia suffer electric shock and burn injuries as a direct consequence of electrical contractors and others not implementing safe isolation procedures. In electrical engineering, isolator/disconnect switches, which can be secured in the OFF position, are commonly used to make sure an electrical circuit is completely de-energised for maintenance or service. Other devices such as fuses or mcbs with appropriate locking features may also be used. These switches and devices are commonly installed in electrical distribution and industrial settings for the purpose of safe isolation.

Before working on or near high energy electrical sources they should be isolated but this is not always possible. In most countries it is now illegal to work 'live' unless prescribed protective measures are

taken. That does not stop workers from knowingly and unknowingly taking risks and carrying out live work, sometimes resulting in consequential arc flash. The hope is that the allotted personal protection equipment (PPE) when properly worn will be able to withstand the arc flash energy, but this is not always the case.

We are seeking speakers who have a desire to discuss the issues involved and want to help reduce the number of arc flash incidents in Australia. We need electrical professionals who are passionate about improving the procedures of arc flash and isolation safety. We want specific examples that showcase what can be learnt in terms of actual vocational skills, planning, tools, equipment, and environment that lead to arc flash incidents (and injury) and how they may better be avoided.

SUGGESTED TOPICS:

- Arc flash and switching case studies
- Working distances & flash boundaries
- Arc flash assessments
- Electrical hazards & effects on humans
- Data collecting and system modeling
- Arc flash studies and research
- Personal Protective Equipment (PPE)
- Guidance on safe isolation procedures
- Isolator/disconnect switch techniques
- Isolator switch technology
- Arc flash calculations
- Practical solutions for reducing arc-flash hazards
- Flash protection approach boundaries
- Hazard risk category
- Codes and standards – overview, review & critique – NFPA 70E/IEEE 1584 /ESAA NENS 09-2004/ CSA-Z462
- Practical electrical isolation for the avoidance of arc flash risk and injuries

ALL SUBMISSION WELCOME

Note: We are seeking papers that cover a selection of case studies and examples of real world working systems, and problem solving scenarios. Sales or product based presentations are not accepted.

This event is an excellent opportunity to network with your industry peers and for speakers to gain significant new information and techniques on arc flash safety.

What is required from you?

- A **100 word abstract**, which outlines the topic you, would like to present. This needs to be submitted electronically as soon as possible, to secure your place.
 - Once your topic is approved, your **technical paper and PowerPoint slides** will be due six weeks prior to the event.
 - Speaking slots are allocated on topic suitability and on a first come first served basis, so please register your interest today by emailing namukale.nakazwe@idc-online.com
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For further information on this event or to discuss sponsorship opportunities contact:

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