

5TH ARC FLASH CONFERENCE

Featuring Keynote Speakers:

TERRY BECKER

P.Eng., CESP, IEEE Senior Member
Certified Electrical Safety
Compliance Professional (CESCP)

President & CEO, ESPS Electrical Safety
Program Solutions Inc. – CANADA



BRETT CLEAVES

Director, Engineering Safety Pty Ltd

Over 20 years industrial
experience and 10 years on
arc fault safety and the development and
implementation of arc hazard controls.



WHAT YOU WILL GAIN FROM THIS CONFERENCE:

- Learn about Australian and international standards developments in arc flash
- Hear local and international case studies detailing the latest arc flash mitigation strategies and solutions
- Learn about electrical safety statistics and the implications for you
- Understand how to achieve a compliant and electrically safe work place
- Learn how to provide arc flash training for your staff
- Detail the steps to perform an arc flash hazard analysis
- Clearly understand what an arc flash is and the potential injuries that can result
- Define what Personal Protective Equipment (PPE) is required on your site
- Learn practical considerations for PPE selection and testing
- Learn how to perform testing and maintenance on your PPE
- A live demonstration of virtual reality software for arc flash training
- Hear case studies from the local arc flash industry
- Network with specialists in the field and your peers
- No sales pitches – non-commercial presentations

WHO SHOULD ATTEND:

- Cathodic Protection Technicians
- Design Engineers
- Electrical Engineers
- Electrical Technologists
- Electricians
- Elevator Mechanics
- Engineering Managers
- Government Safety Regulators/Inspectors
- HVAC Technicians
- Instrumentation and Control Technicians and Engineers
- Instrumentation Mechanics
- Maintenance Managers
- Manufacturers of PPE and Safety Equipment
- OH&S Managers
- OH&S Professionals
- Operations Managers
- Power Line Technicians
- Power System Electricians
- Process Safety and Loss Prevention Managers
- Risk Assessors
- Safety Facilitators
- Supervisors
- Tradespersons working in potentially explosive areas

8th & 9th
March 2017

Rydges on Swanston
Melbourne, Australia

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INTRODUCTION TO THE 5TH ARC FLASH CONFERENCE


The objective of this conference is to provide you with the latest developments and best practice to deal with arc flash hazards in Australia. You will have an opportunity to discuss your arc flash issues with our speakers, and gain practical applications for arc flash safety. The focus throughout is on the experiences of end users. The conference will be attended by those who are interested in technical solutions to their arc flash issues, industry trends, standards developments and new techniques to tackle existing arc flash threats.




Sponsorship Opportunities

Representing your business at the 5th Arc Flash Conference in 2017 will provide you the opportunity to reach key decision makers from a multitude of industries. For more information on sponsorship and exhibition opportunities please contact Joseph Madeley via email conferences@idc-online.com

CONFERENCE DAY ONE – 8th March 2017

8.00am	Registration
8.15am	Opening Address
8.30am	<p>Session 1 MORNING WORKSHOP</p> <p>NFPA 70E / CSA Z462 Risk Assessment Procedure, Application in an Electrical Safety Program</p>  <p>Terry Becker – President and CEO, ESPS Electrical Safety Program Solutions Inc. – CANADA</p> <p>The application of an electrical safety program and expectations of OH&S regulations would require the NFPA 70E-2015 / CSA Z462-2015 Risk Assessment Procedure to be documented.</p> <p>A qualified electrical worker needs to be trained on the risk assessment procedure. The employer and qualified electrical worker should work together in completing the Risk Assessment Procedure. "In the field" documentation tools are required and should be applied to complete the risk assessment process, including arc flash and shock risk assessments; and ensure validation of the determined risk level for an assigned and justified energized electrical work task.</p> <p>The presenter has been involved in electrical safety consulting and electrical safety program development and implementation for over nine years and is the first past Vice-Chair of the CSA Z462 Workplace Electrical Safety Technical Committee and currently a CSA Z462 Voting Member, and Working Group Leader for the Annexes. Terry also attends all NFPA 70E Technical Committee meetings and participates in working groups.</p> <p>INCLUDES Morning Tea</p>
	Lunch – 12.30pm
1.30pm	<p>Session 2 Fast Arc Quenching Systems in MV Switchgear for Protecting People and Assets</p> <p>Dmitry Lazarchuk – Product Marketing Manager - Medium Voltage Power, NHP</p> <p>Internal arc fault is a very rare but possible event in the modern medium voltage switchgear. While the typical switchgear being classified for an arc fault prevents people's injuries, it does not protect the asset from unrepairable damage, and does not eliminate all the hazards caused by arc gases.</p> <p>A new technology available into the Australian medium voltage market is a mechanical arc quenching device which eliminates the arc fault within a few milliseconds, such that switchgear can be restored into service in a matter of hours, minimizing the downtime. It also fully protects personnel from energy and gases caused by an arc fault. This presentation will review the technology, it's benefits to industry and the application process of the device.</p>

2.15pm	<p>Session 3 Safety First with Virtual Simulation</p> <p>Doug Bester – Technical Director, Sentient</p> <p>The industry is facing serious safety risks with regard to potential arc flash burns and electrical shocks. Innovative 3D technology assists with alleviating these risks. Through interactive 3D simulations electricians are able to perform high voltage switching in a safe virtual environment prior to operation. This mitigates the risks associated with long time lapses between isolations or isolating different switches. It further reminds electricians of all the precautionary steps to be taken prior to, and during a high voltage switching activity. Additionally it provides a cost-effective way to assist in the development and assessment of a new generation of electricians.</p> <p>This presentation will feature a live virtual reality simulation on electrical training where delegates will have the opportunity to participate.</p>
	Afternoon Tea – 3.00pm
3.30pm	<p>Session 4 Arc Flash Incident and Assessment Studies</p> <p>Brett Cleaves – Director and Principal Engineer, Engineering Safety</p> <p>Every high and low voltage industrial power system includes inherent risks, such as from arc flash. While equipment standards have evolved to reduce the likelihood of the initiation of arc flash events many if not most electrical safety and protection systems have not been designed with arc flash safety and personal protection in mind. Only by performing an arc flash hazard review can you get a proper understanding of the exposure levels on your site so that preventative and mitigating controls can be put in place to prevent injuries and reduce equipment down time. Brett will give you the benefit of his experience in carrying out arc flash assessment studies and describe preventative and mitigating controls that have been identified and initiated based on recently completed projects that can reduce, and at times eliminate the need for PPE.</p>
4.15pm	<p>Session 5 Arc Flash Safety</p> <p>Patrick Mynett – Director, HV Training and Consulting</p> <p>Arc flash is little understood by people who operate and work on or with electrical equipment. This presentation will discuss the basic causes of an arc flash, the energy levels present, and the energy that is released during an arc flash. The recoding of arc flash incident and the suspected number that occur in Australia each year.</p> <p>The definition of incident energy will also be explored, while explaining how incident energy levels can be reduced. Furthermore, this presentation will discuss the importance of arc rated PPE, why understanding and quantifying risk of arc flash is important, and why maintenance is important in reducing arc flash events</p>
	Closing – 5.00pm
	<p>Networking Session – 5.00pm to 6.00pm</p> <p>An hour dedicated for all attendees to meet and socialise with experts and industry peers at the 5th Arc Flash Conference Cocktail Hour.</p> 

REGISTER NOW:

Email: conferences@idc-online.com

Web Site: www.idc-online.com

Mail: IDC Technologies, PO Box 1093, West Perth, WA 6872

CONFERENCE DAY TWO – 9th March 2017

8.30am
Session 6

Arc Fault Incidents in Australia: Current Standards and What You Should Be Doing Now

Brett Cleaves – Director and Principal Engineer, Engineering Safety



KEY NOTE

Australian laws and standards already exist that require workplaces to identify and control arc fault hazards, however these requirements are either unknown or poorly understood. Recent ground breaking research by Brett and Engineering Safety highlights the magnitude of severe arc fault injuries in NSW and illustrates why arc fault safety needs to be included as part of your workplaces electrical safety system. In addition this presentation will provide and insight into the recent changes to arc flash standards, hazard reduction equipment and what this means for Australian workplaces.

9.30am
Session 7

Considerations for Selection of Electric ARC Protective Clothing

Geoff Wynn – ARC PPE Consultant, Technical Consulting Services

Arc flash rated clothing is now being adopted in Australia, this follows testing by AUSGRID at the Lane Cove facility which clearly showed the traditionally worn cotton uniforms were not suitable to wear as ARC PPE. Different arc testing methods are used in other geographic regions, but a proven consensus exists – arc rated PPE is required in all areas of the electrical industry.

This presentation will cover the significance of ARC rated clothing and PPE. A historic overview will show how ARC rated PPE and new standards have impacted in a positive manner in other countries, reducing incidents, clothing fires and fatalities. Heat stress is a big concern for people who have to wear this arc rated PPE, and scientific data will illustrate how to understand and select a suitable product.

Morning Tea – 10.15am

10.45am
Session 8

Arc Flash Detection Systems – Overview and Testing

Chido Chandakabata – Applications Engineer, Schweitzer Engineering Laboratories (SEL)

Technologies to protect personnel from electrical arcs in switchgear have been available for several years. Recent developments in this field has seen significant improvements in the detection of arc flash hazards. The arc flash protection philosophy is based on the determination of arc flash boundaries that take into account the fault levels associated with a particular circuit and the operating times specified for the protection system put in place. The reliability and speed of operation are critical in these systems hence the need to verify the performance of these systems.

This presentation discusses the most recent arc flash detection systems as well as the test setup and procedures necessary to perform arc flash detection system testing. It will also share results from field testing in order to verify performance assumptions and adequacy of safety procedures required while working near electrical hazards in switchgear.

11.30am
Session 9

A Journey Toward Electrical Workplace Safety and Production Reliability

David Durocher – Global Industry Manager, Mining & Minerals, Eaton Corporation, USA

CASE STUDY

This paper outlines the experience of one global cement producer that embarked on site surveys and studies to achieve arc flash safety compliance at 14 cement plants in the USA and Canada. The enterprise wide electrical workplace safety initiative resulted in compliance by all plant sites to the latest standards with new labels affixed to each openable electrical panel that quantified the hazard. Labels designated the proper personal protective equipment (PPE) required to assure electricians performing energized work would be safe from potential arc events. The experience of one plant in deploying select new technologies to mitigate arc flash in areas where hazards were very high will be reviewed in detail. Site electrical upgrades resulted in enhanced safety along with an unexpected benefit; a significant improvement in production reliability.

Lunch – 12.15pm

1.15pm
Session 10

Arc Flash, We Need to Get it Right!!!

Terry Becker – President and CEO, ESPE Electrical Safety Program Solutions Inc. – CANADA

In Canada and the United States the CSA Z462 and NFPA 70E Standards have been widely adopted by many industries. The latest 2015 editions move the Standards to “risk based” and the context of how arc flash and shock hazard are identified against energized electrical work tasks has changed. The new Risk Assessment Procedure is not understood and is misapplied. Issues continue with respect to arc flash incident energy analysis studies and applied equipment labels. Arc flash PPE has been procured, but may not be worn at all by qualified electrical workers or donned when it is not necessary.

Arc flash PPE technology has evolved and safer PPE is available for qualified electrical workers. Employers should be budgeting to upgrade. Training provided is only defined as “awareness” when it needs to be comprehensive, focusing on application of the knowledge and must NOT BE fear based training. Controversy exists on the physics behind an arcing fault and the resulting arc flash and the calculations methodologies, the IEEE 1584 Standard will be released in 2017 with updated formulas. The presentation will highlight these issues and stimulate an open discussion and dialogue. We need to “Get it Right!”

2.00pm
Session 11

Recent Changes to Arc Flash Standards and Hazard Reduction Equipment

David Stonebridge – LV Indoor Switchgear Engineer, ABB Australia

The electrical industry in Australia for many years has been discussing the application of NFPA 70E in lieu of the Australian standard for arc flash protection. Recently there have been revisions to the AS/NZS, IEC as well as the USA standards regarding arc fault protection, which is the focus of this paper; however there is still no direction to change to the USA Standards.

Afternoon Tea – 2.45pm

3.15pm
Session 12

New Remote Isolation Technology in Practice – A Case Study

Mike Lane – Chairman, REMSAFE

CASE STUDY

This case study is about new remote isolation technology that removes electrical personnel from the potential exposure of arc flash in switch rooms, and is capable of achieving a SIL3/Cat 4 safety rating. Access problems meant that an 8,000tph port conveyor took 90 minutes and a 50km round trip to isolate. Since 2012 the programmable remote isolation system has taken less than three minutes for a full current isolation. By integrating control and automation technology, it eliminates regular exposure to arc flash hazard during isolations. Extra production availability returned its investment in full by the second time it was used.

4.00pm
Session 13

Discussion Panel

This session will provide delegates with the opportunity to ask our speakers questions and discuss arc flash related issues in their workplace, covering typical problems and possible solutions.

Closing – 4.30pm



All conference papers are reviewed and selected for their high quality and technical value by our panel of specialists experienced in the theory and practice of arc flash.

OUR CONFERENCE PRESENTERS

TERRY BECKER

P.Eng., CESC, IEEE Senior Member
 Certified Electrical Safety Compliance Professional (CESCP)
 President & CEO, ESPS Electrical Safety Program Solutions Inc.
 – CANADA

Terry is the visionary, creator and subject matter expert of the unique processes, and systems established at ESPS to mitigate and reduce risk of exposure to all workers from arc flash and shock. ESPS delivers Electrical Safety Programs, Electrical Safety Audits and Qualified Electrical Worker Electrical Safety Competency Validation. ESPS also provides classroom based low and high voltage arc flash and shock training for Electrical Workers and Non-Electrical Workers.



BRETT CLEAVES

Director, Engineering Safety Pty Ltd
 One of Australia's leading experts in arc flash hazard review and applications of arc flash mitigation techniques.

Brett brings a wealth of experience in the practical application of electrical safety solutions from over 20 years industrial experience and 10 years on arc fault safety and the development and implementation of arc hazard controls. Brett established Engineering Safety in 2013 as a specialist company focusing on the provision of engineered electrical safety solutions, consultancy services and project management to assist companies with their electrical safety journey towards zero harm.



REGISTRATION FORM:

5TH ARC FLASH CONFERENCE

8th & 9th March 2017

Rydges on Swanston, Melbourne, Australia

Simply complete this form online or return by email to idc@idc-online.com.

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2. HOW DID YOU HEAR ABOUT THIS EVENT?

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 Magazine advertisement/insert (please specify which magazine below)
 Other (please specify) _____

3. REGISTRATION & PAYMENT DETAILS

Prices shown are inclusive of GST

PLEASE NOTE: Full payment is required prior to the commencement of the conference.

5TH ARC FLASH CONFERENCE – 8TH & 9TH MARCH 2017

OPTION 1: Early Bird Discount – 10% OFF
 – Book on or before 8th February (SAVE \$179.50) \$1615.50 x _____ delegates = \$ _____
 OPTION 2: Standard Rate (NO Early Bird Discount)
 – Book after 8th February \$1795.00 x _____ delegates = \$ _____
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EARLY BIRD OFFER:

10% off the conference fee for registrations received on or before 8th February 2017
– SAVE \$179.50

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3 FOR 2 OFFER:

Register 3 delegates and only pay for 2
– SAVE UP TO \$1795.00

GENERAL INFORMATION

Confirmation Details

A confirmation email and invoice will be sent to delegates within 3 days of receiving the registration.

Cancellation Policy

A fee of 20% cancellation will apply for cancellations received 7 – 14 days prior to the start date of the conference. Cancellations received less than 7 days prior to the start date of the conference are not refundable, however substitutes are welcome.

Venue

Rydges on Swanston
 701 Swanston Street
 Melbourne, AUSTRALIA, 3053
 Phone: (03) 9347 7811

Accommodation

The conference venue has accommodation available. Contact directly on (03) 9347 7811 and mention the conference when booking and receive the best room rate available.

Food and Beverages

All lunches, morning and afternoon refreshments are included in the registration fee.

Unable to Attend

If you are unable to attend the full conference program, contact us for details to attend individual sessions, or to purchase the Conference Resource Kit.

Enquiries

Phone 1300 138 522 or email idc@idc-online.com.

REGISTRATIONS

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