Seminar Profile

Do You Manage Arc Flash Risk? Read on...

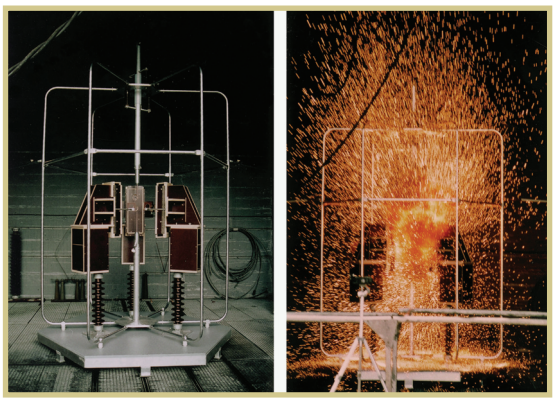
Exploding the Myths and Mystery behind Electrical Arc Flash

Unique Learning event on Arc Flash at the Building Research Establishment, Garston near Watford on 11th February 2009

This is a one off event hosted by Electrical Safety (UK) Ltd and DuPont Personal Protection, the highlight of which will be a workshop held by Jim Phillips P.E. Jim is probably one of the most knowledgeable independent experts on arc flash in the world and will be delivering an in depth workshop on arc flash research, standards and calculation methods before moving on to similar events on main land Europe. This will be complimented by Mike Frain FIET MCMI of Electrical Safety (UK) Ltd who will draw on his experience in authoring electrical safety procedures to demonstrate how the standards can be used to assist in compliance with European/UK legislation; and Neil Gove MEng CEng MIEE, HM Specialist Inspector (Electrical and Control Systems) who is going to speak about the relevant electrical safety legislation in the UK specifically defining live work and fundamental requirements of regulation 14 from the Electricity at Work Regulations 1989.

This is the event for you if you need answers to any of the following questions.

- What is Arc Flash?
- What is the definition of Live/Energised Work?
- What is the Law on Live Working?
- How can I predict arc flash severity?
- What are the principles of the calculation methods?
- Can they help me in my risk assessments?
- How can I specify FR Clothing/PPE?
- Is Arc Flash Evaluation a legal requirement?
- How can I design safe working space in front of switchgear?
- How can it help my electrical workers to understand the dangers of arc flash?
- How can I design out the arc flash problem?
- You need heavy switching suits to operate switchgear don't you??



You will get first hand information about the direction of current trends is this very important area from the "horse's mouth" as Jim sits on the IEEE 1584 committee and is the author of the guide "How to Perform an Arc Flash Study in 12 Steps" published by the NFPA. He is also currently writing NFPA's book on how to perform arc flash studies which is due out early Spring 2009. In addition there is a chance to visit and tour the Building Research Establishment Innovation Park which features near zero carbon construction homes, and to find out more about the BRE fire testing and consultancy services on the Burn Hall where the BRE has a world-class reputation for fire research.

Not to be missed! Numbers are restricted please register your interest with us by sending an email to: info@elecsafety.co.uk and mark your enquiry "BRE ARC FLASH"

Please note:
This is a non-profit event, any profits made from this event are to be donated to charity.

Electrical Safety (UK) Ltd - Tel: 0114 2400399 - Website: www.elecsafety.co.uk

Electrical SAFETY (UK)

ADVICE • TRAINING • EQUIPMENT

Arc Flash Seminar Programme

Wednesday 11 February 2009

8:30 Registration and Coffee

9:00 Welcome and Introduction to BRE

Debbie Smith, Fire and Security Group Director, Buildings Research Establishment

9:15 Electrical Flashover

- Overview of the hazard, statistics, case histories and current trends.
- How can US standards help in the UK risk evaluation process?

Mike Frain, FIET MCMI,
Electrical Safety (UK) Ltd

9:45 History and overview of American Safety Standards.

- The basis for the IEEE 1584 statistical model, details of research past, present and future.
- What is meant by the terms – incident energy, protection boundaries?

Jim Phillips P.E., T2G

10:30 Break

10:45 The current legislative framework in the UK.

- What is live work?
- Fundamental requirements of Regulation 14 of the Electricity at Work Regulations
- Overview of Relevant Legislation

Neil Gove, MEng CEng MIEE, HM Specialist Inspector (Electrical & Control Systems) Health and Safety Executive

11:15 IEEE 1584, Guide for performing Arc Flash Hazard Calculations

- Performing the study.
- Calculation of Arcing Current
- Incident Energy and Arc Flash
- protection boundary.
- Arc Flash and the Utilities IEEE 1584 work in progress.

Jim Phillips P.E., T2G

12:00 Lunch and tour of the Buildings Research Establishment facility

13:15 Test Methods for FR Clothing

Elaina Harvey, Du Pont Personal Protection

13:45 Arc Flash Dynamics

- Simplified calculations of bolted fault current and arcing current.
- Hands on calculations, how incident energy is calculated.
- Personal Protective Equipment Selection.

Jim Phillips P.E., T2G

14:45 Break

15:00 Live Working/Testing

- Risk assessment and risk evaluation.
- Mitigation of the Arc Flash Hazard.
- Safe working space in front of switchgear.
- Designing out the Arc Flash problem.

Mike Frain, FIET MCMI
Electrical Safety (UK) Ltd

15:30 Open Forum – Questions and Answers

16:00 Finish

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Speakers' Profiles

Jim Phillips

For almost 30 years, Jim has been helping 10's of 1000's of people around the world understand electrical design, theory and applications. Having taught over 1800 seminars during his career to people from all 7 continents, he has developed a reputation for being one of the best trainers and public speakers in the Electric Power Industry. Jim is a member of the Arc Flash Working Group IEEE 1584 - *IEEE Guide for performing Arc Flash Hazard Calculations.* Jim wrote "How to Perform an Arc Flash Study in 12 Steps" which was published by the NFPA. He was one of the main writers for the NEC Digest - the official magazine of the National Electrical Code.

Mike Frain

Mike has held senior management positions in contracting, utilities and facilities maintenance companies having direct responsibility for putting people to work on a full range of complex and large power electrical systems throughout the UK. He has worked on all types of electrical systems in various environments engaged in designing, maintaining, operating, constructing and commissioning electrical systems in private and public networks. Mike has become an authority on electrical safety procedures and processes and has been widely credited with raising awareness about the dangers of electrical flashover within the UK. He has advised European and US owned companies on electrical flashover and the application of new US standards including the compatibility with UK legislation.

Neil Gove

Neil Gove is a HM specialist inspector (electrical and control systems) and has worked for the Health and Safety Executive for over 10 years. He graduated with a Masters degree in Electrical & Electronic Engineering from the University of Strathclyde in 1990 and is a Chartered Electrical Engineer. Before joining HSE, Neil was both a design and commissioning engineer for NEI / Rolls Royce, working on control and power electronics systems. Neil provides technical support to the whole of HSE, as well as to external stakeholders and has spent time in both operational and support roles.

Elaina Harvey

Elaina Harvey has been working for the DuPont™ Personal Protection team for 5 years now and formerly was employed at a specialist garment manufacturer. Her expertise lays firmly in the technical flame resistant fibre, fabric and garment industry and has done for the last 13 years. Elaina works with the value chain (end users, garment manufacturers, distributors and laundries) predominately in the industrial markets specializing in the Petrochemical and Utility markets for NOMEX® flame resistant fibres, providing technical guidance for flash fire and electric arc clothing solutions.

DuPont™ NOMEX®

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Event Location

Exploding the myths and Mystery behind Electrical Arc Flash

HOW TO GET TO BRE WATFORD

BRE's Garston site is 20 miles from Central London, four miles north of Watford, and a mile from Garston itself. We are very close to the junction of the M1 and M25 motorways. Mainline train services from London Euston pass through Watford, and London's main airports are all within 60 miles.

Public transport

Travelling by train

The nearest mainline station to BRE is Watford Junction, on the London (Euston) to Glasgow line. It is a three mile taxi ride or bus journey (see below) from the station to BRE. Local train services through Garston and Bricket Wood do not provide access to BRE.

For details of train times and ticket pricing, call National Rail Enquiries on 08457 48 49 50

Bus services

Local service 321 between Watford Junction station and St Albans, and the 724 airport coach service from Heathrow towards Harlow, pass close to BRE (alight at St Michael's School). A pedestrian underpass connects across to Bucknalls Lane. For further information about public transport services, call the Hertfordshire Intalink Traveline on 0870 608 2 608.

Travelling by road

From the M1

Leave the M1 at Junction 6 (the A405, signposted to St Albans if approaching from London, and North Watford if approaching from the north). Follow the tight bend of the slip road round and join the southbound A405 towards North Watford. After half a mile, turn left at the traffic lights into Bucknalls Lane (signposted to BRE). Our entrance is on the left at the end of the lane, after the motorway bridge.

From the M25

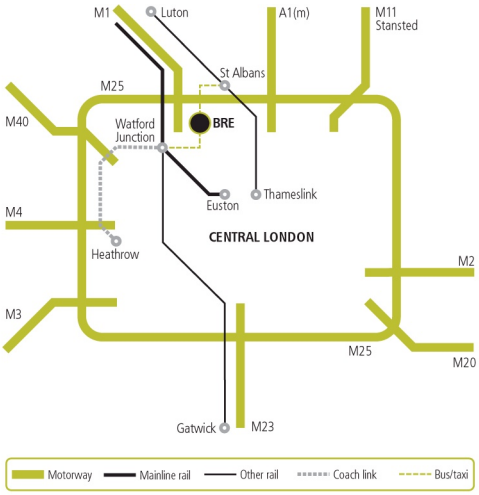
Leave the M25 at Junction 21A (signposted A405 to St Albans if approaching from the west and Watford / M1 if approaching from the east). Turn onto the A405, following signs to North Watford. After half a mile, continue straight on at traffic lights, passing under the M1. After a further half mile, at the next traffic lights, turn left into Bucknalls Lane (signposted to BRE). Our entrance is on the left at the end of the lane, after the motorway bridge.

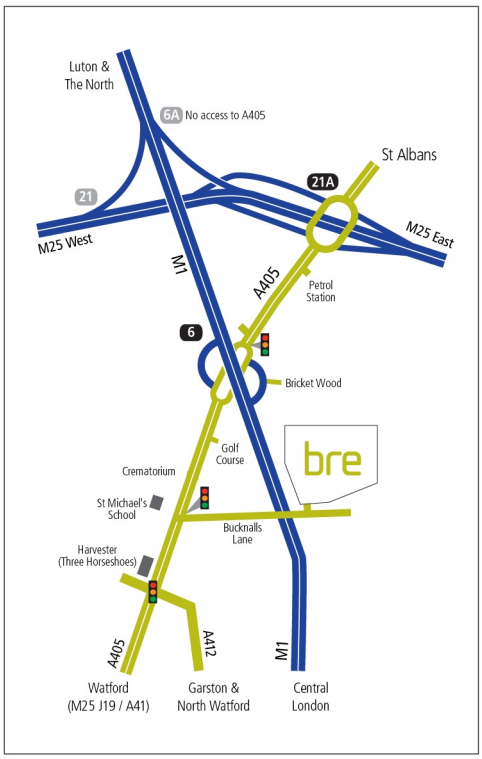
Satellite navigation / online route planner users

An error in many mapping databases will give incorrect directions to BRE if you enter our postcode. Instead, enter WD25 9NH and this will bring you within sight of the BRE main entrance. (Please don't use this code when posting items to us.)

BRE Bucknalls Lane, Watford, WD25 9XX

T 01923 664000 F 01923 664010 E enquiries@bre.co.uk





October 2006