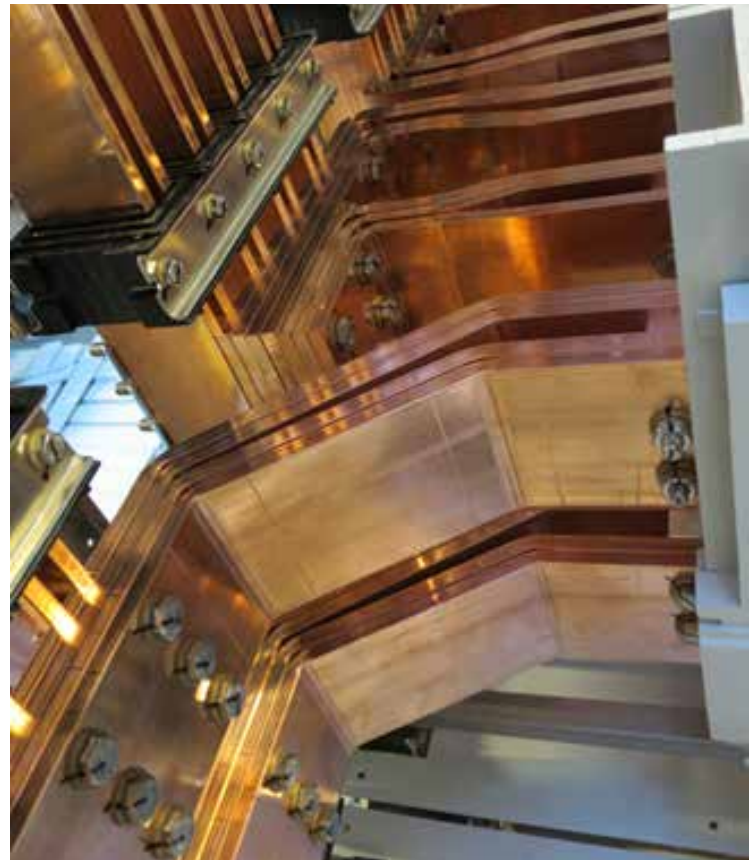


ELECTRICAL ARC SAFETY PROGRAMME



ELECTRICAL ARC SAFETY PROGRAMME

The hazard of arc flash is ever present within power generation and distribution systems. Arc flash poses a life threatening hazard for employees working with electrical systems. Therefore it is necessary to assess these risks and put in place the necessary protective and preventive measures to comply with company standards or authority requirements.

With the BWSC services outlined below, we can help implement an electrical safety programme that ensures the safety and health of employees to the most feasible extent.

Training course

- dedicated arc safety training course to meet customer requirements
- two-day training programme for engineers, maintenance staff and operators
- understanding the arc hazard
- hazard identification and mitigation

Electrical arc safety survey

- on-site survey of switchboards and equipment with respect to arc safety
- verify switchboard safety barriers

Arc flash calculations

- study report identifying incident energy levels and safety distances on all switchboards according to IEEE1584

Personal protective equipment (PPE)

- assistance on selecting suitable arc rated clothing

Switchboard arc safety and warning labels

- switchboard arc safety barriers and arc pressure relief systems (IAC, internal arc classification)
- increase awareness by labelling switchboards with arc flash hazard categories

Operation of electrical systems and company procedures

- international regulations and standards for operation of electrical systems (NFPA70E and EN50110)
- work planning and risk assessment
- review of company procedures and best practices

Arc flash energy reducing means

- identify feasible solutions in order to reduce life threatening energy levels to acceptable levels
- specify detailed energy reducing means

Project developments – new projects

- design assistance in green field projects to achieve low risk electrical systems
- eliminate the arc hazard in early project phases by engineering controls
- risk prevention through design
- specification of equipment barriers and relays for hazard reduction



	Not significant	Minor	Moderate	Major	Severe
Almost certain	Medium	High	Very high	Very high	Very high
Likely	Medium	High	High	Very high	Very high
Possible	Low	Medium	High	High	Very high
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Low	Low	Medium

An ounce of prevention is worth a pound of cure. Before beginning work on power generation equipment, it is crucial to analyse risks and identify potential hazards.