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## Risk Element

- Electrocution;
- Electric shock;
- Fire;
- Explosion.

## Precautions to Eliminate/reduce Risk

- Wear correct personal protective equipment;
- When working in isolated area(s) ensure other persons are available to render assistance if required;
- Always ensure that section(s) of electrical system being worked are satisfactorily isolated;
- Safe systems of work (permits to work);
- Ensure satisfactory working space.

## Action in an Emergency

- Switch off and isolate electrical supply;
- Remove injured person(s) from danger area (if without risk);
- Render first aid;
- Call emergency services.

## Safe Working Method

**NOTE: Reference should be made to the I.E.E. Regulations (BS7671) and the Electricity at Work Regulation 1989 before implementing these procedures.**

- Ensure that the electrical system to be worked on is effectively earthed;
- Switch and isolate the section of the electrical system from which the components are to be replaced;
- Post safety hazard notices adjacent to isolator and/or fit “locking off” device to warn other personnel that electrical circuits are switched off for the repairs to be undertaken;
- With a suitable and proven test instrument, (see HSE guidance Note GS38). Check there is no secondary voltage or current applied to all the terminals or connections of the component(s) to be replaced/or worked on;
- Replace component(s) as required ensuring that all connections are fully tightened and cables correctly positioned and are secure;
- Carry out a visual and manual check on the operation of the replacement component(s) (if applicable) i.e., contactors, etc.;
- Re-connect and switch on electrical supply and check for satisfactory operation of components and system (as required) and monitor voltage and current as applicable;
- On completion of work, ensure all items isolated are operational (unless unsafe) and all notices and locking off devices removed.