

ELECTRICITY AT WORK REGULATIONS 1989

Duties under the regulations (Regulation 3): Employees whilst at work shall –

- co-operate with their employer so far as is necessary to enable duties on that employer to be complied with
- comply with the regulations in relation to matters within their control.

Systems, Work activities, Protective equipment (Regulation 4): Systems shall at all times be so constructed and maintained so that they should prevent danger. Operation, use and maintenance of a system, or work near a system, shall be carried out in a manner that should not give rise to danger. Protective equipment shall be suitable, suitably maintained and properly used.

Capability (Regulation 5): No electrical equipment shall be put to use where its strength and capability (i.e. in normal, transient and fault conditions) may be exceeded in such a way as to give rise to danger.

Adverse or hazardous weather conditions (Regulation 6): Electrical equipment which could be exposed to mechanical damage; or the effects of weather, natural hazards, temperature or pressure; or the effects of wet, dirty, dusty or corrosive conditions; or any flammable or explosive substance including dusts, vapours or gases shall be so constructed and protected so that it should prevent danger.

Insulation, Protection and placing of conductors (Regulation 7): All conductors in a system which may give rise to danger shall be covered with insulating material and protected (e.g. trunking, sheathing) or so placed so that they should prevent danger.

Earthing, integrity and other precaution (Regulation 8 & 9): Precautions (e.g. earthing, double insulation, low voltage or current limitation) shall be taken where a conductor (other than a CC) could become charged as a result of either the use of, or a fault, in a system. An earth conductor shall be of sufficient strength and capability to discharge electrical energy to earth. Nothing which could break electrical continuity or introduces high impedance (e.g. fuse) shall be placed in a conductor connected to earth or other reference point (e.g. a neutral) unless suitable precautions are taken.

Connections (Regulation 10): Every joint and connection (terminal, plug and socket etc) in a system shall be mechanically and electrically suitable for use.

Excess current protection (Regulation 11): Every part of a system shall be protected from excess current (e.g. short circuit, or mechanical overload of a motor) by an efficient means, suitably located (e.g. a fuse or circuit breaker in each separately-rated circuit).

Isolation and cutting-off supply (Regulation 12): There shall be suitably identified means of cutting off the supply (e.g. a switch) and of isolation of any Electrical Equipment. There is an exemption for sources of electrical energy (accumulators, capacitors and generators) but precautions should be taken to prevent danger.

'DEAD' Working (Regulation 13): Where Electrical Equipment has been made dead to enable work to be carried out, precautions shall be taken to prevent the Electrical Equipment becoming charged if danger would result (e.g. use of lock-off isolators, interlocked covers to equipment, insulated conductors and shrouded terminals).

'LIVE' Working (Regulation 14): No person shall work so near a live (un-insulated) conductor that danger may arise unless –

- it is unreasonable for it to be dead (i.e. commissioning, fault finding, to comply 'with' a legal duty or to avoid widespread hardship).
- it is reasonable in the circumstances (i.e. segregated parts of equipment, safe distance, special tools)
- precautions are taken to prevent injury (i.e. protective equipment).

Working space, access and lighting (Regulation 15): Adequate working space, access and lighting shall be provided at all Electrical Equipment on or near which work is being done that could give rise to danger.

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Competence (Regulation 16): Unless a person has the necessary technical knowledge and experience to prevent danger or injury, they shall work under the degree of supervision appropriate to the work.

Defence (Regulation 29): It shall be a defence to prove that all reasonable steps were taken and all due diligence exercised to avoid committing an offence.