

THE OCCUPATIONAL SAFETY AND HEALTH ACT

Regulations made by the Minister under section 100 (1) of the Occupational Safety and Health Act

1. These regulations may be cited as the Occupational Safety and Health (Electricity at Work) Regulations 2009.

2. In these regulations –

“authorised person” means any person authorised by an employer;

“circuit conductor” means any conductor in a system which is intended to carry electric current in normal conditions, or to be energised in normal conditions and includes a combined neutral and earth conductor, but does not include a conductor provided solely to perform a protective function by connection to earth or other reference point;

“conductor” means a conductor of electrical energy;

“danger” means risk of injury;

“electrical equipment” includes anything used, intended to be used or installed for use and to generate, provide, transmit, transform, rectify, convert, conduct, distribute, control, store, measure or use electrical energy;

“injury” means death or personal injury from electric shock, electric burn, electrical explosion or arcing, or from fire or explosion initiated by electrical energy, where any such death or injury is associated with the generation, provision, transmission, transformation, rectification, conversion, conduction, distribution, control, storage, measurement or use of electrical energy;

“isolate” means to securely disconnect and separate an electrical equipment from every source of electrical energy;

“residual current device” means a mechanical switching device or association of devices intended to cause the opening of the contacts when the residual current attains a given value under specified conditions;

“system” means an electrical system in which all the electrical equipment is, or may be, electrically connected to a common source of electrical energy, and includes such source and such equipment.

3. (1) No employer shall operate a system -

(a) unless the system is constructed, installed and protected in such a manner so as to prevent danger at all times;

- (b) comprising of conductors likely to give rise to danger unless –
 - (i) the conductors are suitably covered with insulating material or are otherwise adequately protected; or
 - (ii) necessary precautions have been taken to prevent danger in relation to the conductors;
 - (c) unless every terminal, plug, socket-outlet, connection or other joint in the system is mechanically and electrically suitable for the purpose for which it is used;
 - (d) unless efficient means are suitably located so as to protect every part of the system from excess current.
- (2) An employer who operates a system under paragraph (1) (a), shall –
- (a) maintain the system so as to prevent danger;
 - (b) not use, work on or near the system in such a manner as to give rise to danger.
- (3) Where a conductor, other than a circuit conductor, is likely to become charged as a result of the use of a system, or a fault in a system, an employer shall prevent danger by earthing or other suitable means.
- (4) For the purposes of paragraph (3), a conductor shall be regarded as earthed when it is connected to the general mass of earth by conductors of sufficient strength and current-carrying capability so as to discharge electrical energy to earth.
- (5) Where more than one voltage system is used, the employer shall ensure that –
- (a) plugs and socket-outlets in one voltage system shall not be dimensionally compatible with the other voltage systems; and
 - (b) all conductors and connections of each voltage system shall be kept well apart and identified so as to be readily distinguishable.
4. (1) Every employer shall provide protective equipment to his employees working on or near electrical equipment.
- (2) The protective equipment referred to under paragraph (1) shall –
- (a) be suitable for the use for which it is provided; and
 - (b) be maintained in a condition suitable for that use.
- (3) No employer shall use or allow to be used electrical equipment –

- (a) in excess of its strength and capability to such an extent as to give rise to danger;
 - (b) that is of such construction or is not adequately protected, so as to prevent danger arising from likelihood of exposure to –
 - (i) mechanical damage;
 - (ii) the effects of wet, dirt, dust or corrosive conditions;
 - (iii) the effects of the weather, natural hazards, temperature or pressure; or
 - (iv) any flammable or explosive substance, including dust, vapour or gas;
 - (c) which is itself a source of electrical energy, unless he takes reasonable precautions to prevent danger to any person.
- (4) Notwithstanding paragraph (3) (c), an employer shall provide suitable means, including methods of identifying circuits, so as to –
- (a) cut-off the supply of electrical energy to any electrical equipment;
 - (b) isolate any electrical equipment.
- (5) Where an electrical equipment has been made dead to prevent danger while work is carried out on or near that equipment, an employer shall take adequate precautions to prevent that equipment from becoming electrically charged during that work if danger may thereby arise.
- (6) Where portable equipment is likely to be used, provision shall be made so that the equipment can be supplied from an adjacent and conveniently accessible socket-outlet.
5. (1) Every employer shall ensure –
- (a) the safety of his employees from risks of electric shock by taking appropriate protective measures;
 - (b) that all residual current devices installed are tested as recommended by the manufacturer and a report of the result of the test, signed by the person carrying out the test, is recorded in a register kept by the employer.
- (2) Where the protective measures include residual current devices, the residual current devices shall have –
- (a) a rated residual operating current of 30 milliamperes or less; and
 - (b) an operating time of 40 milliseconds or less at 150 milliamperes.

- (3) Where a circuit conductor is connected to earth, or to any other reference point, an employer shall avoid danger by preventing the introduction of anything likely to break the electrical continuity, or to introduce high impedance in that conductor.
6. (1) Every employer shall provide adequate working space, means of access and lighting where work is being done on or near an electrical equipment in circumstances which may give rise to danger.
 - (2) No employer shall assign work –
 - (a) associated with electrical equipment requiring technical knowledge or experience, unless the employee possesses such knowledge or experience, or is under such supervision as may be appropriate to the nature of the work;
 - (b) to an employee on or near a live uninsulated conductor giving rise to danger unless –
 - (i) it is unreasonable in all the circumstances for it to be dead;
 - (ii) it is reasonable in all the circumstances for him to be at work on or near it while it is live;
 - (iii) reasonable precautions, including where necessary the provision of suitable protective equipment, are taken to prevent the danger.
7. Every electrical motor shall be controlled by one or more efficient switches which can be easily used for starting and stopping the motor or any machine driven by the motor.
8. The general arrangement of switch boards shall be such that –
 - (a) all parts which may have to be adjusted or handled are readily accessible;
 - (b) the course of every conductor may be readily traced;
 - (c) conductors not arranged for connection to the same system are kept well apart and are readily distinguishable;
 - (d) all bare conductors are so placed or protected as to prevent danger.
9. Every sub-station shall –
 - (a) be so constructed and arranged that no person other than an authorised person can have access thereto;
 - (b) be provided with efficient means of ventilation;
 - (c) be kept dry.

10. Part XIII of the Health, Safety and Welfare Regulations 1980 is revoked.

11. These regulations shall come into operation on 01 June 2009.

Made by the Minister on 14th May 2009.