

**1989 No. 635**

**HEALTH AND SAFETY**

**The Electricity at Work Regulations 1989**

<i>Made - - - -</i>	<i>7th April 1989</i>
<i>Laid before Parliament</i>	<i>25th April 1989</i>
<i>Coming into force</i>	<i>1st April 1990</i>

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The Secretary of State, in exercise of the powers conferred on him by sections 15(1), (2), (3)(a) and (b), (4)(a), (5)(b), (6)(b), (8) and (9) and 82(3)(a) of, and paragraphs 1(1)(a) and (c), (2) and (3), 6(2), 9, 11, 12, 14, 15(1), 16 and 21(b) of Schedule 3 to, the Health and Safety at Work etc. Act 1974(a) ("the 1974 Act"), and of all other powers enabling him in that behalf and for the purpose of giving effect without modifications to proposals submitted to him by the Health and Safety Commission under section 11(2)(d) of the 1974 Act, after the carrying out by the said Commission of consultations in accordance with section 50(3) of that Act, hereby makes the following Regulations:

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(a) 1974 c.37; sections 15 and 50 were amended by the Employment Protection Act 1975 (c.71), Schedule 15, paragraphs 6 and 16 respectively.

# PART I

## INTRODUCTION

### Citation and commencement

1. These Regulations may be cited as the Electricity at Work Regulations 1989 and shall come into force on 1st April 1990.

### Interpretation

2.—(1) In these Regulations, unless the context otherwise requires—

“approved” means approved in writing for the time being by the Health and Safety Executive for the purposes of these Regulations or conforming with a specification approved in writing by the Health and Safety Executive for the purposes of these Regulations;

“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, to generate, provide, transmit, transform, rectify, convert, conduct, distribute, control, store, measure or use electrical energy;

“firedamp” means any flammable gas or any flammable mixture of gases occurring naturally in a mine;

“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;

“safety-lamp mine” means—

(a) any coal mine; or

(b) any other mine in which—

(i) there has occurred below ground an ignition of firedamp; or

(ii) more than 0.25% by volume of firedamp is found on any occasion at any place below ground in the mine;

“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.

(2) Unless the context otherwise requires, any reference in these Regulations to—

(a) a numbered regulation or Schedule is a reference to the regulation or Schedule in these Regulations so numbered;

(b) a numbered paragraph is a reference to the paragraph so numbered in the regulation or Schedule in which the reference appears.

### Persons on whom duties are imposed by these Regulations

3.—(1) Except where otherwise expressly provided in these Regulations, it shall be the duty of every—

(a) employer and self-employed person to comply with the provisions of these Regulations in so far as they relate to matters which are within his control; and

(b) manager of a mine or quarry (within in either case the meaning of section 180 of the Mines and Quarries Act 1954(a)) to ensure that all requirements or prohibitions imposed by or under these Regulations are complied with in so far as they relate to the mine or quarry or part of a quarry of which he is the manager and to matters which are within his control.

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(a) 1954 c.70; section 180 was amended by S.I. 1974/2013.

- (2) It shall be the duty of every employee while at work—
  - (a) to co-operate with his employer so far as is necessary to enable any duty placed on that employer by the provisions of these Regulations to be complied with; and
  - (b) to comply with the provisions of these Regulations in so far as they relate to matters which are within his control.

## PART II GENERAL

### **Systems, work activities and protective equipment**

4.—(1) All systems shall at all times be of such construction as to prevent, so far as is reasonably practicable, danger.

(2) As may be necessary to prevent danger, all systems shall be maintained so as to prevent, so far as is reasonably practicable, such danger.

(3) Every work activity, including operation, use and maintenance of a system and work near a system, shall be carried out in such a manner as not to give rise, so far as is reasonably practicable, to danger.

(4) Any equipment provided under these Regulations for the purpose of protecting persons at work on or near electrical equipment shall be suitable for the use for which it is provided, be maintained in a condition suitable for that use, and be properly used.

### **Strength and capability of electrical equipment**

5. No electrical equipment shall be put into use where its strength and capability may be exceeded in such a way as may give rise to danger.

### **Adverse or hazardous environments**

6. Electrical equipment which may reasonably foreseeably be exposed to—

- (a) mechanical damage;
- (b) the effects of the weather, natural hazards, temperature or pressure;
- (c) the effects of wet, dirty, dusty or corrosive conditions; or
- (d) any flammable or explosive substance, including dusts, vapours or gases,

shall be of such construction or as necessary protected as to prevent, so far as is reasonably practicable, danger arising from such exposure.

### **Insulation, protection and placing of conductors**

7. All conductors in a system which may give rise to danger shall either—
  - (a) be suitably covered with insulating material and as necessary protected so as to prevent, so far as is reasonably practicable, danger; or
  - (b) have such precautions taken in respect of them (including, where appropriate, their being suitably placed) as will prevent, so far as is reasonably practicable, danger.

### **Earthing or other suitable precautions**

8. Precautions shall be taken, either by earthing or by other suitable means, to prevent danger arising when any conductor (other than a circuit conductor) which may reasonably foreseeably become charged as a result of either the use of a system, or a fault in a system, becomes so charged; and, for the purposes of ensuring compliance with this regulation, 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 to discharge electrical energy to earth.

### **Integrity of referenced conductors**

9. If a circuit conductor is connected to earth or to any other reference point, nothing which might reasonably be expected to give rise to danger by breaking the electrical continuity or introducing high impedance shall be placed in that conductor unless suitable precautions are taken to prevent that danger.

### **Connections**

10. Where necessary to prevent danger, every joint and connection in a system shall be mechanically and electrically suitable for use.

### **Means for protecting from excess of current**

11. Efficient means, suitably located, shall be provided for protecting from excess of current every part of a system as may be necessary to prevent danger.

### **Means for cutting off the supply and for isolation**

12.—(1) Subject to paragraph (3), where necessary to prevent danger, suitable means (including, where appropriate, methods of identifying circuits) shall be available for—

- (a) cutting off the supply of electrical energy to any electrical equipment; and
- (b) the isolation of any electrical equipment.

(2) In paragraph (1), “isolation” means the disconnection and separation of the electrical equipment from every source of electrical energy in such a way that this disconnection and separation is secure.

(3) Paragraph (1) shall not apply to electrical equipment which is itself a source of electrical energy but, in such a case as is necessary, precautions shall be taken to prevent, so far as is reasonably practicable, danger.

### **Precautions for work on equipment made dead**

13. Adequate precautions shall be taken to prevent electrical equipment, which has been made dead in order to prevent danger while work is carried out on or near that equipment, from becoming electrically charged during that work if danger may thereby arise.

### **Work on or near live conductors**

14. No person shall be engaged in any work activity on or so near any live conductor (other than one suitably covered with insulating material so as to prevent danger) that danger may arise unless—

- (a) it is unreasonable in all the circumstances for it to be dead; and
- (b) it is reasonable in all the circumstances for him to be at work on or near it while it is live; and
- (c) suitable precautions (including where necessary the provision of suitable protective equipment) are taken to prevent injury.

### **Working space, access and lighting**

15. For the purposes of enabling injury to be prevented, adequate working space, adequate means of access, and adequate lighting shall be provided at all electrical equipment on which or near which work is being done in circumstances which may give rise to danger.

### **Persons to be competent to prevent danger and injury**

16. No person shall be engaged in any work activity where technical knowledge or experience is necessary to prevent danger or, where appropriate, injury, unless he possesses such knowledge or experience, or is under such degree of supervision as may be appropriate having regard to the nature of the work.

## PART III

### REGULATIONS APPLYING TO MINES ONLY

#### **Provisions applying to mines only**

17.—(1) The provisions of regulations 18 to 28 and Schedule 1 shall apply to mines only; and the provisions of that Schedule shall have effect in particular in relation to the use below ground in a coal mine of any film lighting circuit (as defined by paragraph 1 of that Schedule) at or in close proximity to a coal face.

(2) Expressions to which meanings are assigned by the Mines and Quarries Act 1954 shall, unless the contrary intention appears, have the same meanings in regulations 18 to 27 and Schedule 1.

#### **Introduction of electrical equipment**

18. Before electrical equipment (other than equipment approved for the purposes of regulation 20(1)) is first introduced into any underground part of a safety-lamp mine to which the Coal and Other Mines (Surveyors and Plans) Regulations 1956(a) apply, the manager shall submit to an inspector a copy of the ventilation plan required to be kept for that part by regulation 9 of those Regulations, on which the intended locations of that equipment shall be shown, together with a copy of any schematic diagram relating to that part prepared for the purposes of regulation 24(1).

#### **Restriction of equipment in certain zones below ground**

19.—(1) At every safety-lamp mine containing any zones below ground in which firedamp whether or not normally present is likely to occur in a quantity sufficient to indicate danger, there shall be prepared a suitable plan identifying such zones.

(2) Electrical equipment shall not be energised in such zones unless it is—

- (a) equipment of a kind approved for that purpose;
- (b) equipment approved pursuant to regulation 20(1);
- (c) equipment the use of which was lawful in such zones immediately before the coming into force of these Regulations;
- (d) equipment which has received a certificate of conformity or a certificate of inspection in accordance with Council Directive 82/130/EEC(b) on the approximation of the laws of the Member States concerning electrical equipment for use in potentially explosive atmospheres in mines susceptible to firedamp, as adapted to technical progress by Commission Directive 88/35/EEC(c);
- (e) equipment such as is specified in regulation 21(2);
- (f) equipment which is not capable of producing incendive electrical sparks in normal use; or
- (g) electrically-powered equipment not permanently installed in the mine but required occasionally for monitoring, testing, recording and measurement, and used where the concentration of firedamp is 0.8% by volume or less in accordance with suitable rules drawn up by the manager to ensure that danger will not thereby arise, which rules shall in particular include provision for personal supervision of that equipment by a competent person and testing for firedamp when it is in use;

and any lights which conform with this paragraph shall be permitted lights in any mine such as is specified in paragraph (1).

#### **Cutting off electricity or making safe where firedamp is found either below ground or at the surface**

20.—(1) Where any person at a mine detects firedamp in a concentration exceeding 1.25% by volume in the general body of the air either below ground at that mine or at any place on the surface thereof where any exhaustor in a firedamp drainage system is installed, firedamp is monitored or its heat content measured, he shall forthwith—

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(a) S.I. 1956/1760, to which there are amendments not relevant to these Regulations.

(b) OJ No. L59, 2.3.82, p.10.

(c) OJ No. L64, 10.3.88, p.36.

- (a) cut off the supply of electricity to any electrical equipment situated at the place where the said concentration was detected; or
- (b) (where this is not possible) take all reasonably practicable steps to make such equipment safe; or
- (c) (if the taking of the measures specified in sub-paragraphs (a) and (b) above does not fall within the scope of his normal duties) report the matter to an official of the mine who shall ensure that those measures are taken;

except that the provisions of sub-paragraphs (a) to (c) above shall not apply if the electrical equipment is approved for the purpose of remaining energised in such circumstances or (in the case of a safety-lamp mine) is electrical equipment such as is specified in regulation 21(2).

(2) If the supply of electricity to electrical equipment is cut off or the equipment made safe in accordance with paragraph (1), it shall remain in that condition until the senior official on duty at the mine having determined that it is safe to do so, directs that such precautions are no longer necessary.

(3) If the supply of electricity to electrical equipment is cut off or the equipment made safe in accordance with paragraph (1), details of the time, duration and location shall be recorded.

#### **Approval of certain equipment for use in safety-lamp mines**

21.—(1) Subject to paragraph (2), no electric safety-lamp, gas detector, telephone or signalling equipment or other equipment associated therewith or required for the safety of persons shall be taken or used below ground at any safety-lamp mine unless it is equipment which has been approved pursuant to regulation 20(1) or (in the case of electric safety-lamps) is of a type for the time being approved pursuant to section 64(2) of the Mines and Quarries Act 1954.

(2) Nothing in paragraph (1) shall prevent the taking or use below ground at any safety-lamp mine of any electrical equipment which was, before the coming into force of these Regulations, approved pursuant to regulations 20 and 21A of the Coal and Other Mines (Electricity) Regulations 1956(a).

#### **Means of cutting off electricity to circuits below ground**

22. At every mine at which electrical equipment which may give rise to danger is installed below ground and is supplied from a power source at the surface of the mine, switchgear shall be provided at the surface for cutting off the supply of current to that equipment, and adequate provision shall be made for the operation of that switchgear, including such means of communication as will, so far as is reasonably practicable, enable the switchgear to be operated in case of danger.

#### **Oil-filled equipment**

23. Electrical equipment using oil as a means of cooling, insulation or arc suppression shall not be introduced below ground at a mine.

#### **Records and information**

24.—(1) Suitable schematic diagrams of all electrical distribution systems intended to be operated at the mine (other than those operating at a voltage not exceeding 250 volts) shall, so far as is reasonably practicable—

- (a) be prepared and kept in the office at the mine; and
- (b) show the planned settings of any circuit electrical protective devices.

(2) Copies of such portions of the schematic diagrams prepared pursuant to paragraph (1) as are necessary to prevent danger and which show at least those parts of the electrical system which are served by switchgear operating at a voltage in excess of 250 volts shall be displayed at each place where such switchgear is installed.

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(a) S.I. 1956/1766; the relevant amending instruments are S.I. 1974/1853 and 1977/1205.

(3) Plans on a suitable scale shall be kept in the office at the mine showing, so far as is reasonably practicable, the position of all permanently installed electrical equipment at the mine supplied at a voltage in excess of 250 volts.

#### **Electric shock notices**

25. Where, at any place at a mine, electric arc welding is taking place or electrical energy is being generated, transformed or used at a nominal voltage in excess of 125 volts a.c. or 250 volts d.c., a notice shall be displayed in a form which can be easily read and understood and containing information on the appropriate first-aid treatment for electric shock and details of the emergency action to be taken in the event of electric shock.

#### **Introduction of battery-powered locomotives and vehicles into safety-lamp mines**

26. No locomotive or vehicle which uses an electrical storage battery, either partly or wholly, as a power source for traction purposes shall be introduced below ground at a safety-lamp mine unless it is an approved locomotive or vehicle.

#### **Storage, charging and transfer of electrical storage batteries**

27. At any mine in which electrical storage batteries are used below ground, those batteries shall, so far as is reasonably practicable, be used, stored, charged and transferred in a safe manner.

#### **Disapplication of section 157 of the Mines and Quarries Act 1954**

28. Section 157 of the Mines and Quarries Act 1954(a) (which provides a defence in legal proceedings and prosecutions in certain circumstances) shall not apply in relation to any legal proceedings or prosecutions based on an allegation of a contravention of a requirement or prohibition imposed by regulations 18 to 27 or by or under Schedule 1.

## **PART IV**

### **MISCELLANEOUS AND GENERAL**

#### **Defence**

29. In any proceedings for an offence consisting of a contravention of regulations 4(4), 5, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 25, it shall be a defence for any person to prove that he took all reasonable steps and exercised all due diligence to avoid the commission of that offence.

#### **Exemption certificates**

30.—(1) Subject to paragraph (2), the Health and Safety Executive may, by a certificate in writing, exempt—

- (a) any person;
- (b) any premises;
- (c) any electrical equipment;
- (d) any electrical system;
- (e) any electrical process;
- (f) any activity,

or any class of the above, from any requirement or prohibition imposed by these Regulations and any such exemption may be granted subject to conditions and to a limit of time and may be revoked by a certificate in writing at any time.

(2) The Executive shall not grant any such exemption unless, having regard to the circumstances of the case, and in particular to—

- (a) the conditions, if any, which it proposes to attach to the exemption; and

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(a) 1954 c.70; section 157 was amended by S.I. 1974/2013.



(b) any other requirements imposed by or under any enactment which apply to the case,  
it is satisfied that the health and safety of persons who are likely to be affected by the exemption will not be prejudiced in consequence of it.

#### **Extension outside Great Britain**

31. These Regulations shall apply to and in relation to premises and activities outside Great Britain to which sections 1 to 59 and 80 to 82 of the Health and Safety at Work etc. Act 1974 apply by virtue of Articles 6 and 7 of the Health and Safety at Work etc. Act 1974 (Application outside Great Britain) Order 1977<sup>(a)</sup> as they apply within Great Britain.

#### **Disapplication of duties**

32. The duties imposed by these Regulations shall not extend to—
- (a) the master or crew of a sea-going ship or to the employer of such persons, in relation to the normal ship-board activities of a ship's crew under the direction of the master; or
  - (b) any person, in relation to any aircraft or hovercraft which is moving under its own power.

#### **Revocations and modifications**

33.—(1) The instruments specified in column 1 of Part I of Schedule 2 are revoked to the extent specified in the corresponding entry in column 3 of that Part.

(2) The enactments and instruments specified in Part II of Schedule 2 shall be modified to the extent specified in that Part.

(3) In the Mines and Quarries Act 1954, the Mines and Quarries (Tips) Act 1969<sup>(b)</sup> and the Mines Management Act 1971<sup>(c)</sup>, and in regulations made under any of those Acts, or in health and safety regulations, any reference to any of those Acts shall be treated as including a reference to these Regulations.

Signed by order of the Secretary of State.

7th April 1989

*Patrick Nicholls*  
Parliamentary Under Secretary of State,  
Department of Employment

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## **SCHEDULE 1**

Regulation 17

### **PROVISIONS APPLYING TO MINES ONLY AND HAVING EFFECT IN PARTICULAR IN RELATION TO THE USE BELOW GROUND IN COAL MINES OF FILM LIGHTING CIRCUITS**

1. In this Schedule, "film lighting circuit" means any electric circuit at a coal mine, not being permanently installed thereat, and required occasionally to supply mains electricity to electric lights for the purpose of providing illumination for photography or video-recording, and includes the said lights and any other electrical apparatus in that circuit.

2. A film lighting circuit shall not be used unless—

- (a) not less than 7 days prior to such use, details of when and where it is to be used have been notified to the Health and Safety Executive; and
- (b) within the 24 hours immediately preceding such use—
  - (i) it has been externally examined; and
  - (ii) the insulation thereof and the conductance of every conductor of every flexible cable forming part of it have been tested.

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<sup>(a)</sup> S.I. 1977/1232.

<sup>(b)</sup> 1969 c.10.

<sup>(c)</sup> 1971 c.20.

3. The manager shall make, and ensure the carrying out of, arrangements to prevent the accumulation of dust on any surface of any luminaire or apparatus in sufficient quantities to give rise to spontaneous ignition.

4. The manager shall make suitable rules with respect to the use of film lighting circuits, for the purpose of ensuring, so far as is reasonably practicable, that such use will not give rise to danger; and those rules shall in particular require—

- (a) continuous testing for firedamp when a film lighting circuit is in use; and
- (b) the operation of any such circuit to be personally supervised by a competent person.

5. No person shall fire any shot or round of shots in a place in which, or in the vicinity of which, any part of a film lighting circuit is installed.

## SCHEDULE 2

Regulation 33

### REVOCATIONS AND MODIFICATIONS

#### PART I REVOCATIONS

Column 1 <i>Regulations and orders revoked</i>	Column 2 <i>Reference</i>	Column 3 <i>Extent of revocation</i>
The Electricity Regulations 1908	S.R. & O. 1908/1312	The whole Regulations
The Manufacture of Cinematograph Film Regulations 1928	S.R. & O. 1928/82	Regulation 12
The Cinematograph Film Stripping Regulations 1939	S.R. & O. 1939/571	Regulation 14
The Electricity (Factories Act) Special Regulations 1944	S.R. & O. 1944/739	The whole Regulations
The Factories (Testing of Aircraft Engines and Accessories) Special Regulations 1952	S.I. 1952/1689	In regulation 2(2), the definitions of "Earthed", "Flameproof" and "Intrinsically safe"; regulations 14, 15, 16, 17 and 18
The Coal and Other Mines (General Duties and Conduct) Regulations 1956	S.I. 1956/1761	Regulation 6(2)
The Coal and Other Mines (Safety-Lamps and Lighting) Regulations 1956	S.I. 1956/1765	Regulations 4, 18, 18A and 19
The Coal and Other Mines (Electricity) Order 1956	S.I. 1956/1766	The whole Order
The Miscellaneous Mines (Electricity) Order 1956	S.I. 1956/1779	The whole Order
The Quarries (Electricity) Order 1956	S.I. 1956/1781	The whole Order
The Dragonby Ironstone Mine (Diesel, Diesel-Electric and Storage Battery Vehicles) Special Regulations 1958	S.I. 1958/320	The whole Regulations
The Winn's Ironstone Mine (Diesel, Diesel-Electric and Storage Battery Vehicles) Special Regulations 1958	S.I. 1958/321	The whole Regulations
The Silverwood Mine (Electric Trolley Locomotives) Special Regulations 1958	S.I. 1958/1276	The whole Regulations
The Gasswater A Mine (Storage Battery Locomotives) Special Regulations 1959	S.I. 1959/37	The whole Regulations

<i>Column 1</i> <i>Regulations and orders revoked</i>	<i>Column 2</i> <i>Reference</i>	<i>Column 3</i> <i>Extent of revocation</i>
The Gasswater B Mine (Storage Battery Locomotives) Special Regulations 1959	S.I. 1959/38	The whole Regulations
The Glass Houghton Mine (Shuttle Cars) Special Regulations 1959	S.I. 1959/663	The whole Regulations
The Heights Mine (Storage Battery Locomotives) Special Regulations 1960	S.I. 1960/223	The whole Regulations
The Coal Mines (Firedamp Drainage) Regulations 1960	S.I. 1960/1015	Regulation 12(1)(b)
The Construction (General Provisions) Regulations 1961	S.I. 1961/1580	Regulation 44
The Hopton Mine (Locomotives and Diesel Vehicles) Special Regulations 1961	S.I. 1961/1583	The whole Regulations
The Cocklakes Mine (Locomotives and Diesel Vehicles) Special Regulations 1961	S.I. 1961/1769	The whole Regulations
The Long Meg Mine (Locomotives and Diesel Vehicles) Special Regulations 1961	S.I. 1961/1774	The whole Regulations
The Sandwith Anhydrite Mine (Lighting) Special Regulations 1962	S.I. 1962/192	The whole Regulations
The Thistleton Mine Special Regulations 1962	S.I. 1962/364	Regulations 4, 22 to 42, and 53 to 80
The Force Crag Mine (Storage Battery Locomotives) Special Regulations 1962	S.I. 1962/1501	The whole Regulations
The Potts Ghyll Mine (Storage Battery Locomotives) Special Regulations 1963	S.I. 1963/270	The whole Regulations
The Chislet Mine (Electric Trolley Locomotives) Special Regulations 1963	S.I. 1963/896	The whole Regulations
The Llanharry Mine (Storage Battery Locomotives) Special Regulations 1963	S.I. 1963/906	The whole Regulations
The Easton Mine (Diesel, Diesel-Electric and Storage Battery Vehicles) Special Regulations 1963	S.I. 1963/1074	The whole Regulations
The Guildie Howes Mine (Locomotives and Diesel Vehicles) Special Regulations 1965	S.I. 1965/33	The whole Regulations
The Muirshiel Barytes Mine (Storage Battery Locomotives) Special Regulations 1965	S.I. 1965/120	The whole Regulations
The Dragonby Ironstone Mine (Diesel, Diesel-Electric and Storage Battery Vehicles) (Amendment) Special Regulations 1965	S.I. 1965/1299	The whole Regulations
The Coal and Other Mines (Mechanics and Electricians) Regulations 1965	S.I. 1965/1559	Regulation 11(3)
The Redburn Mine (Storage Battery Locomotives) Special Regulations 1965	S.I. 1965/1698	The whole Regulations
The Settlingstones Mine (Storage Battery Locomotives) Special Regulations 1966	S.I. 1966/351	The whole Regulations
The Coal and Other Mines (Electricity) (Amendment) Regulations 1967	S.I. 1967/1083	The whole Regulations
The Aberllefeni Mine (Storage Battery Locomotives) Special Regulations 1967	S.I. 1967/1395	The whole Regulations
The Braich Goch Mine (Storage Battery Locomotives) Special Regulations 1967	S.I. 1967/1396	The whole Regulations

<b>Column 1</b> <i>Regulations and orders revoked</i>	<b>Column 2</b> <i>Reference</i>	<b>Column 3</b> <i>Extent of revocation</i>
The Preston Manor Mine (Lighting) Special Regulations 1968	S.I. 1968/38	The whole Regulations
The Chudleigh Knighton Tunnel Mine (Lighting) Special Regulations 1968	S.I. 1968/39	The whole Regulations
The West Golds Mine (Lighting) Special Regulations 1968	S.I. 1968/40	The whole Regulations
The Broadway New Pit Tunnel Mine (Lighting) Special Regulations 1968	S.I. 1968/103	The whole Regulations
The Mainbow Mine (Lighting) Special Regulations 1968	S.I. 1968/104	The whole Regulations
The Nangiles and the Janes Mine (Storage Battery Locomotives) Special Regulations 1968	S.I. 1968/868	The whole Regulations
The Camborne Mine (Storage Battery Locomotives) Special Regulations 1969	S.I. 1969/570	The whole Regulations
The Cotgrave Mine (Suspended Monorail Diesel Locomotives) Special Regulations 1969	S.I. 1969/744	The whole Regulations
The Levant Mine (Storage Battery Locomotives) Special Regulations 1969	S.I. 1969/1236	The whole Regulations
The No. 4 Adit Mine (Lighting) Special Regulations 1970	S.I. 1970/1103	The whole Regulations
The Rixey Park Mine (Lighting) Special Regulations 1970	S.I. 1970/1547	The whole Regulations
The Horden Mine (Cable Reel Shuttle Cars) Special Regulations 1971	S.I. 1971/18	The whole Regulations
The Mount Wellington Mine (Storage Battery Locomotives) Special Regulations 1971	S.I. 1971/1270	The whole Regulations
The Cornish Hush Mine (Storage Battery Locomotives) Special Regulations 1972	S.I. 1972/348	The whole Regulations
The Beckermat Mine (Storage Battery Locomotives) Special Regulations 1972	S.I. 1972/396	The whole Regulations
The Burtree Pasture Mine (Storage Battery Locomotives) Special Regulations 1972	S.I. 1972/483	The whole Regulations
The Haile Moor Mine (Storage Battery Locomotives) Special Regulations 1972	S.I. 1972/1235	The whole Regulations
The Carrock Fell Mine (Storage Battery Locomotives) Special Regulations 1972	S.I. 1972/1236	The whole Regulations
The Prince of Wales Mine (Storage Battery Locomotives) Special Regulations 1972	S.I. 1972/1393	The whole Regulations
The Rixey Park Mine (Storage Battery Locomotives) Special Regulations 1973	S.I. 1973/1208	The whole Regulations
The Beaumont Mine (Storage Battery Locomotives) Special Regulations 1974	S.I. 1974/1654	The whole Regulations
The Coal and Other Mines (Electricity) (Second Amendment) Regulations 1974	S.I. 1974/1853	The whole Regulations
The Ledston Luck Mine (Cable Reel Shuttle Cars) Special Regulations 1974	S.I. 1974/1929	The whole Regulations
The Factories Act 1961 etc. (Repeals and Modifications) Regulations 1974	S.I. 1974/1941	Regulation 3(2)(a)
The Hendre Mine (Storage Battery Locomotives) Special Regulations 1974	S.I. 1974/1985	The whole Regulations

<i>Column 1</i> <i>Regulations and orders revoked</i>	<i>Column 2</i> <i>Reference</i>	<i>Column 3</i> <i>Extent of revocation</i>
The Mines and Quarries Acts 1954 to 1971 (Repeals and Modifications) Regulations 1975	S.I. 1975/1102	The entry in Schedule 2 relating to the Coal and Other Mines (Electricity) Regulations 1956
The South Leicester Mine (Electric Lighting) Regulations 1976	S.I. 1976/696	The whole Regulations
The Coal and Other Mines (Electricity) (Third Amendment) Regulations 1977	S.I. 1977/1205	The whole Regulations
The Bolsover Mine (Cable Reel Shuttle Cars) Regulations 1977	S.I. 1977/2035	The whole Regulations
The Ackton Hall Mine (Cable Reel Load-Haul-Dump Vehicles) Regulations 1978	S.I. 1978/1539	The whole Regulations
The Coal and Other Mines (Metrication) Regulations 1978	S.I. 1978/1648	The entries in the Schedule relating to— (a) regulation 18 of the Coal and Other Mines (Safety-Lamps and Lighting) Regulations 1956; and (b) the Coal and Other Mines (Electricity) Regulations 1956
The Coal and Other Mines (Electric Lighting for Filing) Regulations 1979	S.I. 1979/1203	The whole Regulations
The Scraithole Mine (Storage Battery Locomotives) Regulations 1979	S.I. 1979/1658	The whole Regulations
The Lynemouth Mine (Electric Lighting) Regulations 1980	S.I. 1980/1395	The whole Regulations
The Manton Mine (Electric Lighting) Regulations 1980	S.I. 1980/1396	The whole Regulations
The Vane Tempest Mine (Electric Lighting) Regulations 1980	S.I. 1980/1397	The whole Regulations
The Yew Tree Mine (Storage Battery Locomotives) Regulations 1980	S.I. 1980/1405	The whole Regulations
The Coal and Other Mines (Safety-Lamps and Lighting) (Amendment) Regulations 1983	S.I. 1983/710	The whole Regulations
The Miscellaneous Mines (Metrication) Regulations 1983	S.I. 1983/994	In regulation 1(2), the reference to the Miscellaneous Mines (Electricity) Regulations 1956; and in the Schedule the entries relating to those 1956 Regulations
The Quarries (Metrication) Regulations 1983	S.I. 1983/1026	In regulation 1(2), the reference to the Quarries (Electricity) Regulations 1956; and in the Schedule the entries relating to those 1956 Regulations
The Mines (Miscellaneous Amendments) Regulations 1983	S.I. 1983/1130	The whole Regulations

PART II  
MODIFICATIONS

1. The Mines and Quarries Act 1954 shall be modified as follows—
  - (a) in section 64(2) (which relates to safety-lamps) after the word “one” insert “conforming with the provisions of regulation 19(2)(a) to (d) of the Electricity at Work Regulations 1989 or”;
  - (b) in section 182(1) (which defines “permitted lights”) the words “or health and safety regulations” shall be substituted for the words “or Regulations 18 and 18A of the Coal and Other Mines (Safety-Lamps and Lighting) Regulations 1956 as substituted and inserted respectively by the Coal and Other Mines (Safety-Lamps and Lighting) (Amendment) Regulations 1983”.
2. Regulation 4 of the Coal and Other Mines (Fire and Rescue) Regulations 1956(a) (which relates to the provision of dust or sand in relation to electric motors) shall be modified by substituting the words “which is not electrical apparatus that is designed to be moved while working” for the words “which is not portable apparatus for the purposes of the Coal and Other Mines (Electricity) Regulations 1956”.
3. The Shipbuilding and Ship-repairing Regulations 1960 (b) shall be modified as follows—
  - (a) in regulation 51(3)(c) (which requires the provision of lamps and torches in confined spaces in vessels) the words “of an appropriate type” shall be substituted for the words “of a safety type approved for the purpose of this Regulation”;
  - (b) in paragraphs (1) and (3) of regulation 59 (which impose restrictions with respect to the application etc. of naked lights, fires, lamps and heated rivets in oil-carrying vessels), the words “a lamp of an appropriate type” shall be substituted for the words “a safety lamp of a type approved for the purpose of this Regulation” where they respectively appear.
4. Section 1(4) of the Mines Management Act 1971 (which relates to exceptions from statutory responsibilities that may be placed on managers’ assistants) shall be modified by the substitution of the following paragraphs for paragraph (d)—
  - “(d) responsibility for making rules under regulation 19(2)(g) of the Electricity at Work Regulations 1989; and
  - (e) such other responsibilities as may be prescribed.”.

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**EXPLANATORY NOTE**

*(This note is not part of the Regulations)*

These Regulations impose health and safety requirements with respect to electricity at work.

The Regulations impose duties upon employers, self-employed persons, managers of mines and quarries and employees (*regulation 3*). The duties imposed by the Regulations do not, however, extend to the master or crew of a sea-going ship or to their employer in relation to the normal ship-board activities of a ship’s crew under the direction of the master (*regulation 32(a)*); nor do those duties extend to any person in relation to any aircraft or hovercraft which is moving under its own power (*regulation 32(b)*).

The Regulations—

- (a) impose requirements with regard to the construction and maintenance of electrical systems (*regulation 4(1) and (2)*);
- (b) impose requirements with regard to the carrying out of work activities (including the operation, use and maintenance of electrical systems and work near electrical systems) (*regulation 4(3)*);
- (c) impose requirements with regard to the provision of protective equipment (*regulation 4(4)*);

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(a) S.I. 1956/1768, to which there are amendments not relevant to these Regulations.  
(b) S.I. 1960/1932; the relevant amending instrument is S.I. 1983/644.

- (d) impose requirements with regard to the putting into use of electrical equipment (*regulation 5*);
- (e) impose requirements with regard to the construction and protection of electrical equipment which may reasonably foreseeably be exposed to adverse or hazardous environments (*regulation 6*);
- (f) impose requirements with regard to the insulation and protection of, and the taking of precautions in respect of, conductors (*regulation 7*);
- (g) impose requirements with regard to the taking of precautions to prevent danger in respect of certain conductors (*regulation 8*);
- (h) impose restrictions with regard to the placing of any thing which might give rise to danger in any circuit conductor which is connected to earth or to any other reference point (*regulation 9*);
- (i) impose requirements with regard to the mechanical and electrical suitability for use of joints and connections in electrical systems (*regulation 10*);
- (j) impose requirements with regard to the protection from excess currents of electrical systems (*regulation 11*);
- (k) impose requirements with regard to the availability of suitable means for cutting off the supply of electrical energy to, and the isolation of, electrical equipment which is not itself a source of electrical energy (*regulation 12(1)*) and (where necessary) the taking of such other precautions as will, so far as reasonably practicable, prevent danger in respect of electrical equipment which is itself a source of electrical energy (*regulation 12(3)*);
- (l) impose requirements with regard to the taking of such precautions in respect of electrical equipment which has been made dead in order to prevent danger while work is carried on or near it as will prevent that equipment from becoming electrically charged (*regulation 13*);
- (m) impose restrictions on persons being engaged in work activities on or near certain live conductors (*regulation 14*);
- (n) impose requirements with regard to the provision of adequate working space, adequate lighting and adequate means of access at specified electrical equipment (*regulation 15*);
- (o) impose restrictions with regard to who may be engaged in work activities where technical knowledge or experience is necessary to prevent danger or injury (*regulation 16*);
- (p) impose requirements with regard to the use of film lighting circuits below ground in coal mines (*regulation 17(1)* and *Schedule 1*);
- (q) impose conditions with regard to the introduction of specified electrical equipment into underground parts of specified safety-lamp mines (*regulation 18*);
- (r) impose requirements with regard to the preparation of plans identifying zones underground in safety-lamp mines where firedamp is likely to occur in quantities sufficient to indicate danger (*regulation 19(1)*) and specify that only certain electrical equipment may be energised in those zones and deem any lights which may be energised in such zones to be "permitted lights" as defined by section 182(1) of the Mines and Quarries Act 1954 (*regulation 19(2)*). Among the electrical equipment which may be energised in such zones is that which has been certified in accordance with Council Directive 82/130/EEC (OJ No. L59, 2.3.82, p.10) (which relates to the approximation of the laws of the Member States concerning electrical equipment for use in potentially explosive atmospheres in mines susceptible to firedamp), as adapted to technical progress by Commission Directive 88/35/EEC (OJ No. L64, 10.3.88, p.36);
- (s) impose requirements with regard to cutting off the supply of electricity to electrical equipment (or making it safe) when firedamp is found in concentrations exceeding 1.25% by volume in the general body of the air either below ground at, or at specified places on the surface of, mines (*regulation 20*);
- (t) impose restrictions with regard to the taking or use below ground at safety-lamp mines of electric safety-lamps, gas detectors, telephone and signalling equipment and other equipment associated therewith or required for the safety of persons (*regulation 21*);

- (u) impose requirements with regard to the provision and operation of switchgear in respect of electrical equipment which may give rise to danger and which is installed below ground at a mine, but which is supplied from a power source at the surface (*regulation 22*);
- (v) impose a prohibition on the introduction below ground at mines of electrical equipment using oil as a means of cooling, insulation or arc suppression (*regulation 23*);
- (w) impose requirements with regard to the preparation, keeping and display of schematic diagrams and plans of electrical distribution systems and permanently installed electrical equipment at mines (*regulation 24*);
- (x) (in circumstances where, at any place at a mine, electric arc welding is taking place or electrical energy is being generated, transformed or used at a nominal voltage in excess of 125 volts a.c. or 250 volts d.c.) impose requirements with regard to the display of notices giving information on the appropriate first-aid treatment for electric shock and details of what emergency action should be taken in the event of electric shock (*regulation 25*);
- (y) impose restrictions with regard to the introduction below ground at safety-lamp mines of locomotives and vehicles which use electrical storage batteries, either partly or wholly, as a power source (*regulation 26*);
- (z) impose requirements with regard to the use below ground at mines of electrical storage batteries (*regulation 27*).

The Regulations disapply section 157 of the Mines and Quarries Act 1954 (defence in certain legal proceedings) in relation to any legal proceedings or prosecutions arising out of regulations 18 to 27 and Schedule 1 (*regulation 28*) and provide a defence in the case of a contravention of certain of the Regulations (*regulation 29*). The Regulations provide for the issue of certificates of exemption by the Health and Safety Executive (*regulation 30*). The Regulations also provide that they shall apply outside Great Britain to the extent specified in regulation 31.

The Regulations revoke the instruments specified in Part I of Schedule 2 (*regulation 33(1)*), modify the enactments and instruments specified in Part II of Schedule 2 (*regulation 33(2)*) and provide that any reference to the Mines and Quarries Act 1954, the Mines and Quarries (Tips) Act 1969 or the Mines Management Act 1971 in any of those Acts, in regulations made under any of those Acts, or in health and safety regulations, shall be treated as including a reference to these Regulations (*regulation 33(3)*).

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