

1991 No. 13

HEALTH AND SAFETY

Electricity At Work Regulations
(Northern Ireland) 1991

Made 14th January 1991

Coming into operation—

for the purposes of Part III
and regulations 29 and 30,
in so far as they relate to
Part III, regulation 32(1), (2)
and (5) and Schedules 1 and 2
for all other purposes

11th March 1991
6th January 1992

ARRANGEMENT OF REGULATIONS

PART I

INTRODUCTION

- 1. Citation and commencement.
- 2. Interpretation.
- 3. Persons on whom duties are imposed by these Regulations.

PART II

GENERAL

- 4. Systems, work activities and protective equipment.
- 5. Strength and capability of electrical equipment.
- 6. Adverse or hazardous environments.
- 7. Insulation, protection and placing of conductors.
- 8. Earthing or other suitable precautions.
- 9. Integrity of referenced conductors.
- 10. Connections.
- 11. Means for protecting from excess of current.
- 12. Means for cutting off the supply and for isolation.
- 13. Precautions for work on equipment made dead.
- 14. Work on or near live conductors.
- 15. Working space, access and lighting.
- 16. Persons to be competent to prevent danger and injury.

PART III

REGULATIONS APPLYING TO MINES ONLY

17. Provisions applying to mines only.
18. Introduction of electrical equipment.
19. Restriction of equipment in certain zones below ground.
20. Cutting off electricity or making safe where firedamp is found either below ground or at the surface.
21. Approval of certain equipment for use in safety-lamp mines.
22. Means of cutting off electricity to circuits below ground.
23. Oil-filled equipment.
24. Records and information.
25. Electric shock notices.
26. Introduction of battery-powered locomotives and vehicles into safety-lamp mines.
27. Storage, charging and transfer of electrical storage batteries.
28. Disapplication of section 135 of the Mines Act (Northern Ireland) 1969.

PART IV

MISCELLANEOUS AND GENERAL

29. Defence.
 30. Exemption certificates.
 31. Disapplication of duties.
 32. Revocations and modifications.
- Schedule 1. Provisions applying to mines only and having effect in particular in relation to the use below ground in coal mines of film lighting circuits.
- Schedule 2. Revocations and modifications of enactments relating to mines only.
- Schedule 3. Revocations and modifications of enactments not relating to mines.

The Department of Agriculture, the Department of Economic Development, the Department of the Environment and the Department of Health and Social Services acting jointly as the Department concerned^(a), in exercise of the powers conferred by Articles 17(1) to (6) and 55(2) of, and paragraphs 1(1) and (2), 5(2), 8, 10, 11, 13, 14(1), 15, 19 and 20(b) of Schedule 3 to, the Health and Safety at Work (Northern Ireland) Order 1978^(b) ("the 1978 Order"), and of every other power enabling them in that

(a) See Article 2(2) of S.I. 1978/1039 (N.I. 9)

(b) S.I. 1978/1039 (N.I. 9)

behalf, after consultation in accordance with Article 46(1) of the 1978 Order with the Health and Safety Agency for Northern Ireland and such other bodies as appeared to them to be appropriate, hereby make the following Regulations:—

PART I

INTRODUCTION

Citation and commencement

1. These Regulations may be cited as the Electricity at Work Regulations (Northern Ireland) 1991 and shall come into operation—

- (a) for the purposes of Part III and regulations 29 and 30, in so far as they relate to Part III, regulation 32(1), (2) and (5) and Schedules 1 and 2, on 11th March 1991;
- (b) for all other purposes on 6th January 1992;

Interpretation

2. In these Regulations—

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

“Department” means the Department of Economic Development;

“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;

“mine” has the meaning assigned to it by section 156 of the Mines Act (Northern Ireland) 1969(a);

“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 or has been 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.

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;
 - (b) manager of a mine 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 of which he is the manager and to matters which are within his control; and
 - (c) owner, occupier or agent of a quarry to ensure that all requirements and prohibitions imposed by or under these Regulations are complied with in so far as they relate to the quarry or part of a quarry of which he is the owner, occupier or agent and to matters which are within his control.
- (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.

(3) In this regulation “owner”, “occupier”, “agent” and “quarry” have the meanings respectively assigned to them by Article 2(2) of the Quarries (Northern Ireland) Order 1983(a).

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) Such maintenance of systems as is necessary to prevent danger must, so far as is reasonably practicable, be provided.

(a) S.I. 1983/150 (N.I. 4)

(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. Electrical equipment shall not 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 so 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, where 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 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 without danger.

Integrity of referenced conductors

9. If a circuit conductor is connected to earth or to any other reference point, anything which might reasonably be expected to give rise to danger by breaking the electrical continuity or introducing high impedance shall not 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 such 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)(b), “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, where necessary in any such case, 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. A person shall not 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. A person shall not 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 for that purpose 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 in relation 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 in regulations 18 to 27 and Schedule 1 which are also used in the Mines Act (Northern Ireland) 1969 shall, unless the contrary intention appears, have the same meaning as in that Act.

Introduction of electrical equipment

18. Before electrical equipment (other than equipment approved for the purposes of regulation 20(2)) is first introduced into any underground part of a safety-lamp mine to which the Coal and Other Mines (Surveyors and Plans) Regulations (Northern Ireland) 1970(a) apply, the manager of the mine shall submit to an inspector a copy of the ventilation plan required to be kept for that part by regulation 10 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 any of the zones referred to in paragraph (1) 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(a) 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(b);
- (e) equipment such as is specified in regulation 21(2);
- (f) equipment which is not capable of producing incenditive 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,

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

(3) The rules referred to in paragraph (2)(g) shall in particular include provision for personal supervision by a competent person of the equipment referred to in that sub-paragraph and for the testing for firedamp when it is in use.

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 thereat where any exhaustor in a firedamp drainage system is installed, firedamp is monitored or its heat content measured, he shall, subject to paragraph (2), forthwith—

- (a) cut off the supply of electricity to any electrical equipment situated at the place where the said concentration was detected;
- (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) 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.

(2) The provisions of paragraph (1) shall not apply if the electrical equipment referred to in that paragraph is approved for the purposes 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).

(3) 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.

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

(b) OJ No. L20, 26.1.88, p. 28

(4) 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), an electric safety-lamp, gas detector, telephone or signalling equipment or other equipment associated therewith or required for the prevention of danger to persons shall not be taken or used below ground at any safety-lamp mine unless it is equipment which has been approved pursuant to regulation 20(2) 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 Act (Northern Ireland) 1969.

(2) Nothing in paragraph (1) shall prevent the taking or use below ground at any safety-lamp mine of any electrical equipment which was, immediately before the coming into operation of these Regulations, approved pursuant to regulation 24 of the Coal and Other Mines (Electricity) Regulations (Northern Ireland) 1970(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.

(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. A locomotive or vehicle which uses an electric storage battery, either partly or wholly, as a power source for traction purposes shall not 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 135 of the Mines Act (Northern Ireland) 1969

28. Section 135 of the Mines Act (Northern Ireland) 1969 (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 Department 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 Department 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
- (b) any other requirements imposed by or under any statutory provision 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.

Disapplication of duties

31. 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

32.—(1) The enactments 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 specified in Part II of Schedule 2 shall be modified to the extent specified in that Part.

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

(4) The Regulations specified in Part II of Schedule 3 shall be modified to the extent specified in that Part.

(5) In the Mines Act (Northern Ireland) 1969 and in the Quarries (Northern Ireland) Order 1983, and in regulations made under that Act or that Order, or in health and safety regulations, any reference to that Act or that Order shall be treated as including a reference to these Regulations.

Sealed with the Official Seal of the Department of Agriculture on 14th January 1991.

(L.S.)

I. C. Henderson

Assistant Secretary

Sealed with the Official Seal of the Department of Economic
Development on 14th January 1991.

(L.S.)

Suzanna Cooper

Assistant Secretary

Sealed with the Official Seal of the Department of the Environment on
14th January 1991.

(L.S.)

J. Kirk

Assistant Secretary

Sealed with the Official Seal of the Department of Health and Social
Services on 14th January 1991.

(L.S.)

W. F. T. Green

Assistant Secretary

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, which is 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 Department; 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.

3. The manager of the mine 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 of the mine 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.

SCHEDULE 2

Regulation 32(1)
and (2)**Revocations and modifications of enactments relating to mines**

PART I

REVOCATIONS

Column 1 <i>Regulations and Orders revoked</i>	Column 2 <i>Reference</i>	Column 3 <i>Extent of revocation</i>
Miscellaneous Mines (Electricity) Regulations (Northern Ireland) 1970	S.R. & O. (N.I.) 1970 No. 105	The whole Regulations
Coal and Other Mines (Electricity) Regulations (Northern Ireland) 1970	S.R. & O. (N.I.) 1970 No. 130	The whole Regulations
Coal and Other Mines (General Duties and Conduct) Regulations (Northern Ireland) 1970	S.R. & O. (N.I.) 1970 No. 133	Regulation 8(2)
Coal and Other Mines (Safety- lamps and Lighting) Regulations (Northern Ireland) 1970	S.R. & O. (N.I.) 1970 No. 138	Regulations 7, 21 and 22
Coal and Other Mines (Mechanics and Electricians) Regulations (Northern Ireland) 1970	S.R. & O. (N.I.) 1970 No. 139	Regulation 10(3)
Mines and Quarries (Repeals and Modifications) Regulations (Northern Ireland) 1980	S.R. 1980 No. 333	The entry in Schedule 2 relating to the Coal and Other Mines (Electricity) Regulations (Northern Ireland) 1970

PART II

MODIFICATIONS

1. The Mines Act (Northern Ireland) 1969(a) 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 (Northern Ireland) 1991 or”;
 - (b) in section 158(1), in the definition of “permitted lights”, after the word “regulations” add the words “or health and safety regulations”.

2. Regulation 6 of the Coal and Other Mines (Fire and Rescue) Regulations (Northern Ireland) 1970(b) (which relates to the provision of dust or sand in relation

(a) 1969 c. 6 (N.I.)

(b) S.R. & O. (N.I.) 1970 No. 129

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 (Northern Ireland) 1970".

Revocations and modifications of enactments not relating to mines

PART I

REVOCATIONS

Column 1 <i>Regulations and Orders revoked</i>	Column 2 <i>Reference</i>	Column 3 <i>Extent of revocation</i>
Electricity (Factories Act) Special Regulations (Northern Ireland) 1945	S.R. & O. (N.I.) 1945 No. 113	The whole Regulations
Construction (General Provisions) Regulations (Northern Ireland) 1963	S.R. & O. (N.I.) 1963 No. 87	Regulation 44
Quarries (Electricity) Rules (Northern Ireland) 1969	S.R. & O. (N.I.) 1969 No. 190	The whole Rules

PART II

MODIFICATIONS

3. The Shipbuilding and Ship-repairing Regulations (Northern Ireland) 1971(a) shall be modified as follows—

- (a) in regulation 50(3)(c) (which requires the provision of lamps and torches in confined spaces in vessels) there shall be substituted the words “of an appropriate type” for the words “of a safety type approved for the purpose of this Regulation”;
- (b) in paragraphs (1) and (3) of regulation 58 (which impose restrictions with respect to the application etc. of naked lights, fires, lamps and heated rivets in oil-carrying vessels), there shall be substituted the words “a lamp of an appropriate type” for the words “a safety lamp of a type approved for the purpose of this Regulation” where they respectively appear.

(a) S.R. & O. (N.I.) 1971 No. 372; the relevant amending rule is S.R. 1990 No. 5

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, owners, occupiers or agents of quarries and employees (regulation 3). These duties 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 31(a)); nor do they extend to any person in relation to any aircraft or hovercraft which is moving under its own power (regulation 31(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));
- (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 158(1) of the Mines Act (Northern Ireland) 1969 (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); and
- (z) impose requirements with regard to the use below ground at mines of electrical storage batteries (regulation 27).

The Regulations disapply section 135 of the Mines Act (Northern Ireland) 1969 (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 Department of Economic Development (regulation 30).

The Regulations revoke the enactments specified in Part I of Schedule 2 and Part I of Schedule 3 (regulation 32(1) and (3)), modify the enactments specified in Part II of Schedule 2 and Part II of Schedule 3 (regulation 32(2) and (4)) and provide that any reference to the Mines Act (Northern Ireland) 1969 and the Quarries (Northern Ireland) Order 1983, in regulations made under that Act or that Order, or in health and safety regulations, shall be treated as including a reference to these Regulations (regulation 32(5)).

Codes of Practice approved by the Health and Safety Agency for Northern Ireland under Article 18(1) of the Health and Safety at Work (Northern Ireland) Order 1978 will be published and will give guidance on the Regulations. The Codes of Practice may be obtained from Her Majesty's Stationery Office, 80 Chichester Street, Belfast BT1 4JY.

A person who contravenes the Regulations is guilty of an offence under Article 31 of the Health and Safety at Work (Northern Ireland) Order 1978 and is liable, on summary conviction to a fine not exceeding £2,000, or, on conviction on indictment, to a fine.