## 2016 No. 427

## **HEALTH AND SAFETY**

## The Mines Regulations (Northern Ireland) 2016

*Made - - - 13th December 2016* 

Coming into operation - 1st February 2017

The Department for the Economy and the Department of Justice acting jointly as the Department concerned (a) make the following Regulations in exercise of the powers conferred by Articles 2(5), 4(4) and (6), 17(1) to (6) and (8), 20(2), 40(2) and (4), 43(3), 45, 54(1) and 55(2) of, and paragraphs 1(1), 1(2), 1(3) and 1(4), 2, 3, 5, 6, 7, 8, 9, 10, 11, 12(1), 12(3), 13, 14(1), 15, 17, 18, 19, and 20 of Schedule 3 to, the Health and Safety at Work (Northern Ireland) Order  $1978(\mathbf{b})$  ("the 1978 Order").

The Regulations, apart from the partial revocation referred to in the next paragraph, give effect without modifications to proposals submitted by the Health and Safety Executive for Northern Ireland under Article  $13(1A)(\mathbf{c})$  of the 1978 Order after consultations had been carried out in accordance with Article  $46(3)(\mathbf{d})$  of the 1978 Order.

It appears to the Department concerned that the partial revocation of the Supply of Machinery (Safety) Regulations 2008(e) is expedient as set out in Article 54(1) of the 1978 Order. It also appears to the Departments not to be appropriate to consult bodies in respect of this partial revocation in accordance with Article 54(5) of the 1978 Order.

#### PART 1

## INTERPRETATION AND GENERAL

#### Citation, commencement and extent

- 1.—(1) These Regulations may be cited as the Mines Regulations (Northern Ireland) 2016.
- (2) These Regulations shall come into operation on 1st February 2017.

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

<sup>(</sup>b) S.I. 1978/1039 (N.I. 9). Articles 17(4) and 55(2) were amended and Article 20(2) substituted by S.I. 1998/2795 (N.I. 18), Article 6(1) and Schedule 1

<sup>(</sup>c) Article 13(1A) was inserted by S.I. 1998/2795 (N.I. 18), Article 4

<sup>(</sup>d) Article 46(3) was amended by S.I. 1998/2795 (N.I. 18), Article 6(1) and Schedule 1 and the Health Protection Agency Act 2004 (c.17), section 11 and Schedule 3

<sup>(</sup>e) S.I. 2008/1597

#### Interpretation

#### 2.—(1) In these Regulations—

"the 1969 Act" means the Mines Act (Northern Ireland) 1969(a);

"the 1978 Order" means the Health and Safety at Work (Northern Ireland) Order 1978;

"the 1995 Regulations" means the Mines and Quarries (Tips and Tipping Plans) Regulations (Northern Ireland) 1995(**b**);

"the 2006 Regulations" means the Manufacture and Storage of Explosives Regulations (Northern Ireland) 2006(c);

"abandoned mine" means—

- (a) a mine to which section 129 of the 1969 Act applied immediately before the date on which these Regulations came into operation; or
- (b) a mine in respect of which a notice of abandonment has been given;

"action level" means—

- (a) in relation to respirable dust, a concentration in air equal to or greater than 3 mg/m<sup>3</sup> as a time-weighted average over a 40 hour period; and
- (b) in relation to respirable crystalline silica, a concentration in air equal to or greater than 0.3 mg/m<sup>3</sup> as a time-weighted average over a 40 hour period;

"appoint" in relation to a person means appoint in writing with a statement summarising the person's duties and authority;

"auxiliary fan" means a fan used or intended to be used at a mine wholly or mainly for ventilating a heading, drift or blind end;

"competent" in relation to a person means a person with sufficient training and experience, or knowledge and other qualities, to enable that person properly to undertake the duties assigned to that person;

"conveyance" means any carriage, cage, skip or kibble in which persons, minerals or materials are wound through a shaft;

"COSHH" means the Control of Substances Hazardous to Health Regulations (Northern Ireland)  $2003(\mathbf{d})$ ;

"counterweight" means a frame containing weights connected into a single conveyance winding system to reduce the out of balance static loads within the system;

"danger area" means any part of the mine below ground which is not for the time being safe to work in or pass through;

"DSEAR" means the Dangerous Substances and Explosive Atmospheres Regulations (Northern Ireland) 2003(e);

"escape and rescue plan" has the meaning given in regulation 54;

"emergency" means a situation which renders necessary the evacuation or rescue (or both) of persons from a mine;

"explosive article" means an article containing one or more explosive substances;

"explosive substance" has the meaning given in regulation 2(1) of the 2006 Regulations;

"explosives" means explosive articles or explosive substances;

"gas outburst" means a sudden release of gas with or without the projection of minerals or rocks;

<sup>(</sup>a) 1969. c.6 (N.I.)

<sup>(</sup>b) S.R 1995 No. 296

<sup>(</sup>c) S.R. 2006 No.425 as amended by S.R. 2009 No. 248

<sup>(</sup>d) S.R. 2003 No 34 as amended by S.R. 2003 No. 288 and S.R. 2005 No. 165

<sup>(</sup>e) S.R. 2003 No 152

"ground control measure" means a measure designed to control the movement of the ground, including the provision and installation of support materials;

"health and safety document" has the meaning given in regulation 9(1);

"health surveillance" means an assessment of the state of health of a person, in relation to exposure to inhalable dust;

"inhalable dust" means airborne material which is capable of entering the nose and mouth during breathing, as defined by BS EN 481: 1993(a);

"inrush" means a sudden, unexpected inflow into the mine having the potential to expose persons to danger;

"lower explosive limit" means the minimum concentration of vapour in air below which propagation of a flame will not occur in the presence of an ignition source;

"the Management Regulations" means the Management of Health and Safety at Work Regulations (Northern Ireland) 2000(**b**);

"mine" has the meaning given in regulation 3;

"mine operator" means—

- (a) in relation to a mine, the person who is in control of the operation of the mine; and
- (b) in relation to a mine which is to be constructed or operated, the person who proposes to control its operation or (if that person is not known) the person who in the course of a trade, business or other undertaking carried on by that person has commissioned its design and construction;

"misfire" means an occurrence in relation to the firing of shots where—

- (a) testing before firing reveals broken continuity which cannot be rectified; or
- (b) a shot or any part of a shot fails to explode when an attempt is made to fire it;

"notice of abandonment" means a notice given under regulation 6(3) that a mine has been abandoned:

"notifiable tip" has the meaning given in regulation 63;

"overwind" means unintentional overtravel of a conveyance or counterweight beyond the limits set by a device installed for the purpose of preventing such overtravel;

"owner" means the person entitled for the time being to work a mine;

"potentially hazardous area" has the meaning given in regulation 34;

"PUWER" means the Provision and Use of Work Equipment Regulations (Northern Ireland) 1999(c);

"respirable dust" means airborne material which is capable of penetrating the gas exchange region of the lung, as defined by BS EN 481: 1993;

"respiratory protective equipment" means equipment which is intended to be worn or held by a person at work and which protects that person against risks to that person's health from inhalation of harmful substances, and any addition or accessory designed to meet that objective;

"rockburst" means a sudden, violent failure of stopes, pillars, walls or other rock buttresses adjacent to or in the mine workings;

"self-rescuer" means respiratory protective equipment designed for use while escaping from a mine:

"shaft" includes a staple-pit, raise, winze, or any similar excavation (whether sunk or in the course of being sunk);

"shot" means a single shot or a series of shots fired as part of one blast;

<sup>(</sup>a) British Standard: Workplace atmospheres. Size fraction definitions for measurement of airborne particles.

<sup>(</sup>b) S.R. 2000 No.388 as amended by S.R. 2001 No. 348, S.R. 2003 No. 454 and S.R. 2006 No. 255

<sup>(</sup>c) S.R. 1999 No 305

"shotfirer" means a person appointed in accordance with the mine operator's written procedures to be responsible for shotfiring operations;

"tip" means an accumulation or deposit of any refuse from a mine (whether in a solid or liquid state or in solution or suspension) other than an accumulation or deposit situated underground, and includes, but is not limited to—

- (a) overburden dumps, backfill, spoil heaps, stock piles and lagoons, and
- (b) any wall or other structure that retains or confines a tip;

"tips rules" has the meaning given by regulation 66;

"ventilation plan" has the meaning given by regulation 59;

"winding apparatus" means mechanically operated apparatus for lowering and raising loads through a shaft and includes a conveyance or counterweight attached to such apparatus and all ancillary apparatus.

- (2) For the purposes of these Regulations, a mine is treated as being worked at any time when—
  - (a) there are persons at work below ground; or
  - (b) plant or equipment is in operation at the mine to maintain the safety of that mine or of any other mine; or
  - (c) the operation of sinking a shaft or driving an outlet is being undertaken at the mine.
- (3) For the purposes of these Regulations, the mine with which a tip is associated is determined as follows—
  - (a) in the case of a tip on premises which are deemed to form part of a mine, the tip is associated with that mine;
  - (b) in the case of a tip not falling within paragraph (a) but on premises which, at any time after the date on which these Regulations come into operation, have been deemed to form part of a mine, the tip is associated with that mine, or (if applicable) the most recent mine of which the tip has been deemed to form part; and
  - (c) in any other case, the tip is associated with the mine from which refuse is deposited on the tip, or, in the case of a tip which is used for the deposit of refuse from more than one mine, whichever of those mines the Executive directs in writing.

#### Meaning of "mine"

- **3.**—(1) This regulation defines "mine" for the purposes of these Regulations.
- (2) "Mine" means an excavation or system of excavations (including all excavations to which a common system of ventilation is provided) made for the purpose of, or in connection with, the extraction, wholly or substantially by means involving persons working below ground, of—
  - (a) minerals (in their natural state or in solution or suspension), or
  - (b) mineral products.
- (3) A mine is deemed to include so much of the surface (including buildings, structures or works on it) surrounding or adjacent to the shafts or outlets of the mine as is occupied with the mine for the purpose of, or in connection with—
  - (a) working the mine,
  - (b) the storage, treatment or preparation for sale, consumption or use of minerals or mineral products extracted from the mine, or
  - (c) the removal from the mine of minerals or mineral products extracted from it or of refuse from it.
- (4) A mine is not deemed to include premises in which a manufacturing process is carried on for a purpose other than—
  - (a) working the mine, or
  - (b) the preparation for sale of minerals extracted from the mine.

- (5) Premises used to deposit refuse from a single mine and occupied exclusively by the owner of the mine are deemed to form part of the mine.
- (6) Premises used to deposit refuse from two or more mines and occupied by the owner of one of the mines (either exclusively or jointly with the owner of the other or any of the others) are deemed to form part of whichever of the mines the Executive directs in writing.
- (7) A railway line serving one or more mines, other than a line falling within paragraph (3) or belonging to a railway company, is deemed to form part of the mine or (if more than one) of whichever of the mines the Executive directs in writing.
- (8) A conveyor or aerial ropeway provided for the removal from a mine of minerals extracted from it, or of refuse from it, is deemed to form part of the mine.

## **Application of these Regulations**

- **4.**—(1) Subject to paragraphs (2), (5) and (6), and except where a contrary intention appears, these Regulations apply to all mines.
- (2) Subject to regulation 69 (plans of abandoned mines), these Regulations do not apply to abandoned mines.
  - (3) These Regulations apply to a tip if—
    - (a) the tip is on premises which are deemed to form part of a mine under regulation 3; or
    - (b) the tip is not on such premises but the mine with which it is associated has not been abandoned and the premises on which the tip is situated continue to be occupied exclusively by the owner of that mine.
- (4) If a tip is not, apart from this regulation, deemed to form part of a mine under regulation 3 by reason only that part, but not the whole, of the premises on which the tip is situated is occupied exclusively by the owner of the mine, the tip is deemed to be one to which these Regulations apply and the premises on which it is situated are deemed to form part of the mine with which it is associated.
- (5) The Executive may by direction in writing given to the mine operator and owner direct that, as from such day as may be specified in the direction, a tip or part of a tip is, for the purposes of paragraph (4), one to which these Regulations no longer apply.
- (6) If the whole or any part of a tip which, apart from this paragraph, would be a tip to which these Regulations apply is appropriated to some use which, in the opinion of the Executive, is inconsistent with the resumption of tipping operations on the tip, or on a particular part of it, the Executive may direct in writing that, as from the day specified in the direction, the whole or part or any part of the tip that is specified in the direction ceases to be a tip to which these Regulations apply.
- (7) Where a direction is made under paragraph (5) or (6), the premises on which the tip (or part of the tip) is situated cease to be part of the mine with which the tip is associated.
- (8) Part 8 of these Regulations applies to a tip on premises which are occupied exclusively by the owner of an abandoned mine and which are used for depositing refuse from another mine as if the person who is in control of the tip were the mine operator.

## PART 2

### HEALTH AND SAFETY MANAGEMENT

#### Duties of the owner

**5.**—(1) The owner of a mine shall not appoint another person to be the mine operator unless that person is suitable and has sufficient resources to be able to operate the mine safely.

- (2) Where the owner of a mine appoints another person to be the mine operator, the owner shall provide the mine operator with any relevant information that is available, or that becomes available, about circumstances that might affect the health and safety of persons at the mine.
- (3) Where the owner of a mine appoints another person to be the mine operator, a written statement of that appointment shall be signed by the owner and the mine operator and a copy shall be provided to the mine operator.
- (4) The owner shall keep the record, and the mine operator shall keep the copy, referred to in paragraph (3) for the duration of the appointment.

#### **Notification of mining operations**

- **6.**—(1) At least 28 days before a mine is worked, the mine operator shall notify the information specified in paragraph (2) to the Executive in writing.
  - (2) The information to be notified under paragraph (1) is—
    - (a) the name and address of the mine;
    - (b) the name and address of the owner; and
    - (c) the name and address of the mine operator and whether the mine operator is an individual, a corporation or a partnership.
- (3) Where an event specified in paragraph (4) occurs, the mine operator shall notify the Executive in writing of the event within 28 days of that event occurring.
  - (4) The events to be notified to the Executive under paragraph (3) are—
    - (a) any change in the name, address or location of the mine;
    - (b) any change in the name, address or location of the mine operator;
    - (c) the use of a mine for a purpose other than the extraction of mineral;
    - (d) the abandonment of the mine or a seam or vein system, shaft or outlet.
- (5) In the case of a mine which is in existence or under construction at the date these Regulations come into operation, subject to regulation 71 (transitional provisions: general), notification that has been made under section 118 of the 1969 Act(a)is deemed to be notification under paragraph (1).

#### General duties of the mine operator

- 7.—(1) The mine operator shall take the necessary measures to ensure, so far as is reasonably practicable, that the mine and its equipment are designed, constructed, equipped, commissioned, operated and maintained in such a way that persons at work can perform the work assigned to them without endangering their own health and safety or the health and safety of others.
- (2) The mine operator shall coordinate all measures relating to the health and safety of persons at work at the mine and their implementation.
- (3) The mine operator shall ensure that, in the event of the abandonment or ceasing of operations at a mine, the mine is left, so far as is reasonably practicable, in a safe condition.

## **Co-operation**

**8.** Every employer of persons at work at a mine and every person at work at a mine shall cooperate with the mine operator to the extent necessary to enable the mine operator to comply with the relevant statutory provisions.

#### Health and safety document

- **9.**—(1) The mine operator shall ensure that no work is carried out at the mine unless a document (in these Regulations referred to as the "health and safety document") has been prepared which—
  - (a) demonstrates that the risks to which persons at the mine are exposed have been assessed in accordance with regulation 3 of the Management Regulations(a);
  - (b) demonstrates that adequate measures, including measures concerning the design, use and maintenance, including (where appropriate) testing, of the mine and of its equipment, have been and will continue to be taken to safeguard the health and safety of persons at the mine;
  - (c) includes a statement of how the measures referred to in sub-paragraph (b) will be coordinated; and
  - (d) records the following information-
    - (i) rules required by regulation 12; and
    - (ii) the conclusions of any appraisal or assessment of a tip undertaken in accordance with regulation 61 or 62 (as applicable).
- (2) In addition to the matters referred to in paragraph (1), the health and safety document shall, where appropriate, include—
  - (a) a plan detailing the equipment and measures required to protect persons at work at the mine from the risk of explosion;
  - (b) where toxic gases are or may be present in the atmosphere at the mine in such concentration that the atmosphere may be harmful to the health and safety of persons at work, a plan detailing the equipment and measures required to protect persons at work at the mine from the harmful atmosphere; and
  - (c) in respect of any zone below ground where rockbursts or gas outbursts may occur, a description, including an operating plan, setting out as far as possible the zones susceptible to such rockbursts or gas outbursts and the measures necessary for the protection of persons at work in, approaching or passing through such zones.
- (3) In relation to the escape and rescue plan required by regulation 54, the health and safety document shall identify those with responsibility for the preparation and execution of the plan and the places where the plan and copies of it are kept.
  - (4) The mine operator shall ensure that the health and safety document is—
    - (a) reviewed from time to time and kept up to date; and
    - (b) made available to each employer of persons at work at the mine and to all persons at work at the mine.
- (5) The mine operator shall ensure that the measures identified in the health and safety document are taken and any plans included in the document are followed.

## Management structure

- **10.**—(1) With a view to securing the health and safety of persons at work at the mine, the mine operator shall—
  - (a) establish a management structure which enables the mine to be operated in accordance with the relevant statutory provisions;
  - (b) make a record of the management structure and the extent of the authority and duties of persons in that structure;
  - (c) appoint a competent individual to be responsible for the overall management of the mine, provided that where the mine operator is an individual and is competent, the mine operator may discharge the functions of that competent individual;

<sup>(</sup>a) Regulation 3 was amended by S.R. 2001 No 348

- (d) ensure that when, for whatever reason, the individual appointed in accordance with subparagraph (c) is not readily available, a competent individual is nominated as a substitute to hold the authority and perform the duties of the first named individual;
- (e) ensure that a competent individual is present at and in charge of the operation of the mine at all times when persons are working at the mine; and
- (f) ensure that sufficient competent individuals are appointed to the management structure to manage the mine safely.
- (2) Without prejudice to the generality of paragraph (1), the management structure shall be established to provide in particular that all persons working in the mine come under the authority of a competent person in the management structure who has a duty to exercise such supervision as is appropriate to ensure the health and safety of those persons and of all others who may be affected by their activities.
- (3) The mine operator shall ensure that the management structure is reviewed regularly and revised where necessary and in particular if the mine undergoes significant changes, extensions or conversions.
- (4) The mine operator shall ensure that each person who forms part of the management structure is provided with a copy of those parts of the health and safety document which describe that person's authority and duties.
- (5) The reference to a competent individual in charge in paragraph (1)(e) is a reference to that individual in charge subject to the overall control exercised by the mine operator.

## Competence

- 11. The mine operator shall ensure that—
  - (a) no person undertakes any work at the mine unless the person either is competent to do that work or does so under the instruction and supervision of some other person who is competent to give instruction in, and to supervise, the doing of that work; and
  - (b) no work is undertaken at the mine unless a sufficient number of persons are present who have the requisite competence to perform the tasks assigned to them.

## Instructions, rules and schemes

- **12.**—(1) The mine operator shall ensure that—
  - (a) rules are in place at the mine with a view to securing—
    - (i) the health and safety of persons at the mine; and
    - (ii) the safe use of equipment; and
  - (b) copies of all current instructions, rules and schemes required to be made under these Regulations—
    - (i) are given to any person at work at the mine upon whom they impose duties; and
    - (ii) are comprehensible to all persons at work at the mine to whom they apply.
- (2) The mine operator shall take all reasonable measures to ensure that each person at work at the mine understands any instructions, rules and schemes made under these Regulations which are relevant to that person.
- (3) The mine operator shall ensure, so far as is reasonably practicable, that any instructions, rules and schemes made under these Regulations are followed or (as appropriate) complied with, by persons at work at the mine.

#### Permits to work

13.—(1) Where it is shown by the health and safety document that such a measure is necessary, the mine operator shall make arrangements for a system of permits (referred to in this regulation as "permits to work") to carry out—

- (a) hazardous operations; and
- (b) operations which are usually straightforward but which may interact with other activities to cause serious hazards.
- (2) A permit to work shall—
  - (a) be issued by a suitable person in the management structure required by regulation 10; and
  - (b) specify the conditions to be fulfilled and the precautions to be taken before, during and after the work concerned.

#### **Inspection of the mine**

- **14.**—(1) The mine operator shall—
  - (a) make arrangements for the systematic inspection of all parts of the mine below ground—
    - (i) where people work or pass; or
    - (ii) which otherwise could have an effect on the health and safety of persons at work at the mine:
  - (b) divide the mine into districts for the purpose of inspection under sub paragraph (a), taking due account of—
    - (i) the extent of each district;
    - (ii) conditions (including risk) in each district; and
    - (iii) other relevant circumstances;
  - (c) prepare and keep up to date a suitable written scheme for the inspection of the mine required by sub paragraph (a);
  - (d) appoint sufficient competent persons to undertake the activities referred to in this regulation;
  - (e) ensure that, where appropriate, suitable written reports are made of the inspections and that each report records significant defects and the steps taken, or proposed to be taken, to remedy them; and
  - (f) ensure that any proposed steps in a report are taken, provided they are appropriate.
- (2) This regulation does not apply to shafts.

## Maintenance and inspection of equipment

- **15.**—(1) The mine operator shall—
  - (a) prepare and keep up to date a suitable written scheme for the systematic inspection, maintenance and testing of all electrical and mechanical plant and equipment at the mine, with a view to ensuring the health and safety of the persons at work in the mine;
  - (b) ensure that, where appropriate, suitable written reports are made of the inspections and that each report records significant defects and the steps taken, or proposed to be taken, to remedy them; and
  - (c) ensure that any proposed steps in a report are taken, provided they are appropriate.
- (2) Schemes and written reports made for the purposes of paragraph (1) are presumed to be adequate to evidence fulfilment of the duties in regulations 5(2) and 6(3) of PUWER.
  - (3) This regulation does not apply to winding apparatus.

#### Record of persons below ground

**16.** The mine operator shall ensure that a record is kept of every person below ground at the mine.

#### Danger areas

- 17. The mine operator shall ensure that—
  - (a) danger areas are clearly identified;
  - (b) there is a suitable barrier or enclosure to prevent, so far as is reasonably practicable, inadvertent entry by any unauthorised person to a danger area; and
  - (c) where any person is authorised to enter the danger area, appropriate measures are taken to protect that person's health and safety.

#### Power of safety representatives to report imminent risk

- 18. Where two or more safety representatives (within the meaning of regulation 2(1) of the Safety Representatives and Safety Committees Regulations (Northern Ireland) 1979(a)) consider that there is an imminent risk of serious personal injury arising from an activity carried out below ground at a mine, they—
  - (a) may make a report in writing to the mine operator; and
  - (b) may provide a copy of that report to the Executive.

## PART 3

#### CONTROL OF MAJOR HAZARDS

## Fire protection

#### **General duty**

- **19.**—(1) The mine operator shall ensure that operations and work at the mine are planned and carried out—
  - (a) so far as is reasonably practicable, to prevent the outbreak of fire or spontaneous combustion; and
  - (b) with a view to preventing the spread of any fire.
  - (2) The mine operator shall ensure that the mine is equipped with—
    - (a) suitable fire-fighting equipment; and
    - (b) where necessary, fire detectors and alarm systems.
- (3) The mine operator shall ensure that the fire-fighting equipment referred to in paragraph (2)(a) is maintained in good condition and is easily accessible.

#### Fire protection plan

- **20.**—(1) The mine operator shall prepare and implement a fire protection plan detailing—
  - (a) the likely sources of fire; and
  - (b) the precautions to be taken to protect against, detect and combat the outbreak and spread of fire.
- (2) In respect of every part of the mine other than any building on the surface of the mine, the fire protection plan shall—
  - (a) include the designation of persons to implement the plan;
  - (b) include the arrangements for any necessary contacts with external emergency services, particularly as regards rescue work and fire fighting; and

<sup>(</sup>a) S.R. 1979 No 437

- (c) be adapted to the nature of the activities carried out at the mine and the size of the mine.
- (3) The fire protection plan shall be kept at the mine or at some other suitable place.

## Explosive atmospheres

#### Application of regulations 22 and 23

**21.** Regulations 22 and 23 apply below ground in mines in which places have been classified as hazardous under regulation 7(1) of DSEAR.

#### **Explosive atmospheres**

- **22.**—(1) The mine operator shall ensure that—
  - (a) there are in place in the zones classified under regulation 7(1) of DSEAR, specific arrangements to detect the presence, and monitor the concentration, of flammable gas; and
  - (b) measures are taken to reduce the level of flammable gas in any zone in which it has been detected to as low a level as is reasonably practicable.
- (2) The measures referred to in paragraph (1)(b) shall include (where necessary) drainage, removal and dilution.

#### **Ignition risks**

- **23.**—(1) The mine operator shall ensure that when in any zone, or at any place within a zone, classified in accordance with regulation 7(1) of DSEAR—
  - (a) the concentration of a flammable gas exceeds 25% by volume of the lower explosive limit of that gas in the general body of air, all activities that present a significant ignition risk are halted until the concentration is reduced so that it is below that level; and
  - (b) in the event that the concentration exceeds 40% by volume of the lower explosive limit of that gas in the general body of air, persons are withdrawn from that place or zone until the concentration has been reduced so that it is below that level.
  - (2) The mine operator shall ensure than none of the following is taken below ground—
    - (a) tobacco or other materials for smoking; or
    - (b) objects used to produce a flame for the purposes of smoking.

#### Application of regulations 25 and 26

**24.** Regulations 25 and 26 apply below ground in coal mines.

#### Burning and welding in coal mines

- 25. The mine operator shall ensure that—
  - (a) no burning or welding equipment is used except in a shaft or inset; and
  - (b) before using any such equipment in a shaft or inset, an appropriate assessment is made of the risks of the proposed operation and appropriate steps are taken to mitigate the risks identified.

## Risks of explosion in coal mines

- **26.** The mine operator shall ensure that (where necessary) there are in place—
  - (a) adequate arrangements to ensure that there is sufficient inert content in dust in roadways in the mine to ensure that risks of explosion are controlled; and
  - (b) suitable and effective barriers against the spread of explosion.

#### **Explosives**

#### Application of regulations 28 to 31

**27.** Regulations 28 to 31 apply to mines at which explosives are transported, stored, handled or used.

#### General duties relating to explosives

- **28.**—(1) The mine operator shall ensure that, so far as is reasonably practicable, all explosives are transported, stored, handled and used safely and securely.
- (2) The mine operator shall ensure that operations involving the transport, storage, handling or use of explosives are not carried out by anyone other than a person who is—
  - (a) competent; and
  - (b) authorised to do so in accordance with rules made under regulation 12.
- (3) The mine operator shall ensure, so far as is reasonably practicable, that no person issues or takes control of explosives except in connection with the person's duties at the mine.

## Duties relating to explosives in mines with explosive atmospheres

- **29.** In mines in which places have been classified as hazardous under regulation 7(1) of DSEAR, the mine operator shall ensure that—
  - (a) the only explosives that are used are suitable for use in such places; and
  - (b) before a shot is charged or fired, suitable tests for the presence of flammable gases are carried out.

#### Storage of explosives

- **30.**—(1) This regulation applies in relation to the temporary storage below ground at a mine of explosives for which a licence or certificate of registration for their storage is not required by virtue of regulation 10(2) and (3) of the 2006 Regulations.
- (2) Subject to paragraph (3), the mine operator may designate as many places below ground at the mine as may be necessary for the temporary storage of explosives to which this regulation applies pending their use in shotfiring operations.
- (3) Where any storage to which regulation 10(2) of the 2006 Regulations applies for which a licence or certificate of registration is not required is to take place at a site in relation to which a person holds a licence or certificate of registration, that storage may only take place there where to do so would not result in a breach of the conditions of that licence or certificate of registration.
  - (4) The mine operator shall not designate a place under paragraph (2) unless it is—
    - (a) suitable; and
    - (b) capable of being made secure.
  - (5) A place designated under paragraph (2) shall, at all times, be made secure or be supervised.

#### Rules

- 31. Rules required by regulation 12 shall include—
  - (a) requirements relating to shotfiring operations;
  - (b) procedures for appointing shotfirers;
  - (c) procedures for authorising other persons who will be involved with the transport, storage, handling and use of explosives;
  - (d) requirements relating to misfires; and

(e) in mines in which places have been classified as hazardous under regulation 7(1) of DSEAR, requirements relating to testing for the presence of flammable gases before any shot is fired.

#### Ground movement

#### Duty to take ground control measures

- **32.**—(1) The mine operator shall ensure that such ground control measures are taken as are necessary to keep secure every place in the mine where persons work or pass.
- (2) The duty in paragraph (1) to keep secure every place in the mine where persons work or pass is a duty to ensure security against any reasonably foreseeable risk to the health and safety of any person.
- (3) Before any excavation is undertaken at a mine, the mine operator shall carry out an assessment of the risks from ground movement.
  - (4) The mine operator shall ensure that the assessment is—
    - (a) recorded; and
    - (b) reviewed and, where appropriate, revised, if there is reason to suspect that there has been a material change in the matters to which it relates.
- (5) The mine operator shall ensure that sufficient ground control measures are taken as soon as possible to address effectively the risks identified by the assessment.
- (6) Paragraph (1) does not require the mine operator to take ground control measures with respect to a danger area.
- (7) In the case of a coal mine, the duty in paragraph (5) is presumed to be met if the mine operator has implemented the standards in Schedule 1, provided that the assessment indicates that those standards are sufficient to address effectively the risks identified by that assessment.

#### Inrushes

## Precautions against inrushes

- 33. The mine operator shall ensure that inrush into any working in a mine of—
  - (a) gas from disused workings (whether mine workings or not); or
  - (b) water or material that flows, or is likely to flow when wet, from any source,

is prevented.

#### Information about inrush hazards

- **34.**—(1) The mine operator shall obtain, so far as is reasonably practicable, all the information which indicates, or tends to indicate, the presence or absence of a potentially hazardous area in the vicinity of any working being carried on, or proposed to be carried on, in the mine.
- (2) The mine operator shall ensure that no working is undertaken in the mine in the vicinity of a body of surface water until—
  - (a) such steps are taken as may be necessary to ascertain the total thickness of the strata lying between the working and the surface water; and
  - (b) the mine operator is satisfied that the strata are sufficiently reliable to prevent an inrush of water from the surface.
  - (3) In this regulation—
    - (a) "body of surface water" means the sea, a lake or river, or any other body of surface water (whether accumulated naturally or not); and
    - (b) "potentially hazardous area" means—
      - (i) any disused workings (whether mine workings or not);

- (ii) any rock or stratum containing or likely to contain water (whether dispersed or in natural cavities);
- (iii) any peat, moss, sand, gravel, silt, or other material that flows or is likely to flow when wet; and
- (iv) any body of surface water.

#### Mine workings in potentially hazardous areas

- **35.**—(1) Before undertaking any working in a mine which would be within—
  - (a) 45 metres (measured in any plane) of—
    - (i) the surface; or
    - (ii) any other potentially hazardous area within the meaning of any of sub-paragraphs (i) to (iii) of regulation 34(3)(b), except disused mine workings; or
  - (b) 37 metres (measured in any plane) of any disused mine workings,

the mine operator shall assess the risk of the occurrence of an inrush to determine whether precautionary measures are necessary to prevent an inrush.

- (2) Where the risk assessment indicates that precautionary measures are necessary, the mine operator shall ensure that the working is not carried on unless—
  - (a) a suitable scheme of work is prepared which lays down the procedures designed to ensure that an inrush does not occur; and
  - (b) the procedures required by the scheme are implemented.
- (3) The mine operator shall ensure that a copy of the scheme is kept at the mine until the working is completed.

Shafts, outlets and winding

#### Shaft construction and modification

**36.** The mine operator shall ensure that, so far as is reasonably practicable, the construction and modification of every shaft is planned, designed and carried out so as to be safe and without the risk of injury to any person.

#### **Equipment in relevant shafts and outlets**

- **37.**—(1) The mine operator shall provide suitable equipment in any relevant shaft or outlet that may be used for travel by persons.
  - (2) The mine operator shall—
    - (a) ensure that it is safe for persons to use the equipment for travel; and
    - (b) provide written instructions for the safe use of the equipment for travel.
- (3) The mine operator shall ensure that a written scheme is in place for the specification, selection and use of a rope in connection with winding apparatus, stipulating the maximum operating life of such a rope and any conditions which may reduce that life.
- (4) The mine operator shall ensure that the stipulated maximum operating life is not exceeded unless a competent person has—
  - (a) carried out a suitable risk assessment;
  - (b) inspected the rope; and
  - (c) confirmed that it is safe for the stipulated maximum operating life to be extended and by how much time.
- (5) In this regulation, a relevant shaft or outlet is a shaft or outlet in which considerable physical effort is required by persons using it to travel, having regard to the distance to be travelled, the gradient, underfoot conditions and other relevant factors.

#### Safety features of winding apparatus

- **38.** The mine operator shall ensure that winding apparatus is suitable and has effective means—
  - (a) to control the speed and distance of travel of the conveyance or counterweight;
  - (b) to stop and hold the conveyance or counterweight in a safe manner, in the event of an overwind; and
  - (c) to monitor the position and movement of every conveyance in a shaft.

#### Inspection, maintenance and testing

- **39.**—(1) The mine operator shall—
  - (a) make arrangements for the systematic inspection, maintenance and (where appropriate) testing by competent persons of—
    - (i) shafts;
    - (ii) their linings and fixtures; and
    - (iii) winding apparatus;
  - (b) prepare and keep up to date a suitable written scheme for the inspection, maintenance and testing required by sub-paragraph (a);
  - (c) appoint sufficient competent persons to undertake the activities required by this regulation;
  - (d) ensure that, where appropriate, suitable written reports are made of inspections and that each report records significant defects and the steps taken, or proposed to be taken, to remedy them; and
  - (e) ensure that any proposed steps in a report are taken, provided they are appropriate.
- (2) The mine operator shall ensure that, when winding apparatus is installed or modified, the apparatus is not used for the transport of persons unless—
  - (a) it has been inspected by a competent person;
  - (b) it has been found to be safe to use; and
  - (c) a written report has been made confirming that it is safe to use.

#### Signalling and communication

**40.** In any shaft or outlet in which there is winding apparatus or other equipment, the mine operator shall ensure that there is provided suitable and safe means to communicate and signal, where such means of communication and signalling is necessary to enable the winding apparatus or equipment to be used safely.

## Transport systems

#### **Transport systems**

- **41.**—(1) The mine operator shall ensure that all vehicles, conveyors and traffic routes are designed, installed, operated and maintained in such a way as to ensure, so far as is reasonably practicable, the health and safety of persons below ground at the mine.
- (2) Without prejudice to the generality of the duty in paragraph (1), the mine operator shall ensure that—
  - (a) vehicles or conveyors do not run in any traffic route unless there is sufficient clearance so that no part of a vehicle or conveyor or of a load on them comes into contact with—
    - (i) the roof or sides of the traffic route or anything supporting them; or
    - (ii) other equipment;
  - (b) so far as is reasonably practicable, no pedestrian is present in any traffic route when vehicles are moving on it, unless-

- (i) there is safe and sufficient clearance between pedestrians and vehicles throughout the traffic route; or
- (ii) there are adequate and sufficient places of refuge provided;
- (c) suitable and sufficient devices are provided—
  - (i) to prevent the accidental disconnection or movement of vehicles or conveyors below ground; and
  - (ii) to arrest runaway vehicles below ground; and
- (d) traffic routes are clearly identified.
- (3) The duty in paragraph (2)(c) extends to all parts of a vehicle that may become uncoupled and move.

## **Transport rules**

**42.** Rules required by regulation 12 shall include rules for the purpose of ensuring the safe operation of vehicles, conveyors and traffic routes.

#### PART 4

#### **VENTILATION**

#### Ventilation

- **43.**—(1) The mine operator shall ensure that—
  - (a) there is a suitable ventilation system below ground at the mine;
  - (b) the ventilation system is subject to suitable monitoring; and
  - (c) the ventilation system is recorded accurately on the ventilation plan required by regulation 59.
- (2) The ventilation shall be continuous and sufficient to ensure that, so far as is reasonably practicable—
  - (a) in the general body of air below ground at the mine, the amount of oxygen is not less than 19% by volume; and
  - (b) the temperature and humidity below ground at the mine are reasonable, having regard to the working methods being used.
- (3) Nothing in paragraph (2) requires ventilation to be provided in any part of the mine where it is not necessary or practicable to do so.
- (4) The mine operator shall ensure that no ventilating fan (other than an auxiliary fan) is installed below ground at the mine unless there have been prepared—
  - (a) a survey of the likely effects of the fan on the ventilation below ground at the mine; and
  - (b) a report detailing the type, size and proposed location of the fan.
- (5) If the ventilation in any part of the mine is interrupted, the mine operator shall ensure that appropriate action is taken to ensure the health and safety of persons at work in that part of the mine.

#### PART 5

#### THE MINE ENVIRONMENT

Inhalable and respirable dust in coal mines

### Application of COSHH below ground in coal mines

**44.** In their application below ground in coal mines, COSHH shall be read as if the Executive had not approved a workplace exposure limit for respirable crystalline silica.

## Assessment and control of inhalable and respirable dust in coal mines

- **45.**—(1) This regulation applies below ground in coal mines.
- (2) The mine operator shall carry out a suitable assessment of the risk to the health of persons at work below ground at the mine created by exposure to inhalable dust.
  - (3) The mine operator shall ensure that the assessment is—
    - (a) recorded; and
    - (b) reviewed and, where appropriate, revised if there is reason to suspect that there has been a material change in the matters to which it relates.
- (4) The mine operator shall ensure that the exposure to inhalable dust of persons at work below ground at the mine is either prevented or, where that is not reasonably practicable, reduced to as low a level as is reasonably practicable.
- (5) The mine operator shall have in place suitable arrangements for sampling the levels of respirable dust and respirable crystalline silica to which persons at work are exposed below ground at the mine.
- (6) If a sample exceeds the action level for respirable dust or respirable crystalline silica, the mine operator shall—
  - (a) determine the reason why the relevant action level was exceeded;
  - (b) ensure that appropriate remedial action is taken; and
  - (c) ensure that appropriate further sampling is carried out for the purpose of assessing the effectiveness of any remedial action.
- (7) The mine operator shall ensure that every person who is, or is likely to be, exposed to inhalable dust is placed under suitable health surveillance, unless the exposure is not significant.

## Lighting and personal lamps

#### Lighting

- **46.**—(1) The mine operator shall ensure that suitable and sufficient artificial lighting is provided in every part of the mine below ground where persons work or pass.
- (2) The duty in paragraph (1) shall not apply in any part of the mine where artificial lighting is unnecessary because of the amount of light emitted by personal lamps or for any other reason.
- (3) The mine operator shall ensure that suitable and sufficient emergency lighting is provided in every place above ground at a mine where a person is likely to be exposed to significant risk in the event of a failure of artificial lighting.
- (4) If it is not reasonably practicable to comply with the duty in paragraph (3), the mine operator shall ensure that persons at work in that place are provided with a personal lamp.

#### Personal lamps

**47.** The mine operator shall—

- (a) provide a suitable personal lamp to each person who goes to work below ground at a mine; or
- (b) where a person provides his or her own lamp, ensure that it is suitable.

#### PART 6

#### SAFE EXIT, ESCAPE AND RESCUE

#### Exits from the mine

- **48.**—(1) The mine operator shall ensure that there are at least two shafts or outlets providing at least two separate exits to the surface.
  - (2) The shafts or outlets required by paragraph (1) shall be—
    - (a) of sound construction;
    - (b) readily accessible to persons below ground at the mine; and
    - (c) sufficiently separated so that, so far as is reasonably practicable, anything that happens in one of them will not affect the safety of the other or others.
- (3) The mine operator shall ensure that, so far as is reasonably practicable, two exits from the mine are available for use at any time by persons below ground at the mine.
- (4) The mine operator shall prepare a suitable written plan of the action to be taken to secure the safety of persons when, due to an unforeseen event or planned maintenance, only one exit is available for use.
  - (5) If only one exit is available for use, the mine operator shall ensure that—
    - (a) the plan required by paragraph (4) is implemented; and
    - (b) the persons below ground are restricted, so far as is reasonably practicable, to those who will not be exposed to danger by reason that only one exit is available for use and who—
      - (i) are needed to carry out work essential for securing the safety of the mine;
      - (ii) are involved in work relating to the unforeseen event or planned maintenance;
      - (iii) at the time the exit became unavailable, were already working below ground, provided they do not remain below ground after their normal period of work has ended; or
      - (iv) are needed to secure the health or safety of any person.

## Ways out from places of work

- **49.**—(1) Subject to paragraph (3), the mine operator shall ensure that every place where a person works has at least two ways out.
  - (2) At least two of the ways out required by paragraph (1) shall—
    - (a) be clearly identified;
    - (b) be passable with reasonable convenience;
    - (c) be separate from each other; and
    - (d) lead to a different exit from the mine.
- (3) The requirements in paragraphs (1) and (2) shall not apply in relation to a heading or other place from which it is not reasonably practicable to provide at least two ways out that comply with paragraph (2), provided that the mine operator ensures that the following conditions are met—
  - (a) there are in place suitable procedures to ensure that all persons can leave the place safely;
  - (b) the activities carried out in the place are limited to those that are required to be carried out there; and

(c) the persons present at the place at any time are limited to those necessary for the activity or activities being carried out there.

## **Emergency routes and emergency doors**

- **50.**—(1) Emergency routes and exits shall remain clear at all times and lead by the most direct and safe route to the open air or a safe area.
- (2) Doors that may form part of an emergency route or exit shall be capable of being opened easily at all times.

#### Auxiliary equipment

**51.** The mine operator shall ensure that suitable auxiliary equipment is available for use when any equipment that is required to be used by persons to leave the mine becomes unavailable or breaks down.

#### Intake airways

**52.** The mine operator shall ensure, so far as is reasonably practicable, that the intake airways for the mine are constructed of suitable fire resistant materials.

#### Duties of the mine operator with regard to escape and rescue

- **53.**—(1) The mine operator shall—
  - (a) ensure that suitable arrangements are in place so that persons below ground at the mine can reach a safe place promptly in the event of an emergency; and
  - (b) provide and operate the necessary warning and other communication systems to enable assistance, escape and rescue operations to be launched immediately if the need arises.
- (2) A mine may not be worked unless the mine operator has made suitable arrangements—
  - (a) for the rescue of persons from the mine; and
  - (b) for the carrying out of work necessary to secure the health and safety of persons below ground at the mine in the event of an emergency.

#### Escape and rescue plan

- **54.**—(1) The mine operator shall prepare and maintain a written plan (in these Regulations referred to as the "escape and rescue plan") which sets out the action to be taken to effect safely and promptly the evacuation and rescue of persons to a safe place in the event of an emergency.
- (2) In preparing the escape and rescue plan, the mine operator shall have regard to every relevant risk assessment carried out in accordance with these Regulations and regulation 3 of the Management Regulations.
- (3) The mine operator shall review the escape and rescue plan regularly at suitable intervals and whenever—
  - (a) there has been a significant change in the matters to which the plan relates; or
  - (b) the plan has been put into use.
- (4) The mine operator shall keep an up to date copy of the escape and rescue plan in a suitable place and make it available to appropriate persons promptly in the event of an emergency.

#### **Emergency equipment and communication systems**

- **55.**—(1) The mine operator shall ensure that suitable equipment is available for use at all times where it is necessary in any operation involving escape or rescue.
  - (2) The mine operator shall ensure that the emergency equipment is—

- (a) maintained in good condition; and
- (b) stored in easily accessible places.
- (3) The mine operator shall ensure that in the event of an emergency the warning and other communication systems referred to in regulation 53 (1)(b) are put into operation immediately.

#### **Training and information**

- **56.**—(1) The mine operator shall ensure that—
  - (a) all persons who work at the mine are trained in the appropriate actions to be taken in the event of an emergency at the mine; and
  - (b) appropriate persons are trained in the use of emergency equipment.
- (2) The mine operator shall ensure that written instructions are prepared on—
  - (a) the appropriate actions to be taken in the event of an emergency at the mine; and
  - (b) the use, handling and operation of emergency equipment.
- (3) The mine operator shall ensure that safety drills are held at regular intervals for the purpose of ensuring that persons who work at the mine are familiar with the matters specified in paragraph (2).

#### **Self-rescuers**

- **57.**—(1) In any mine in which the risk assessment carried out in accordance with regulation 3 of the Management Regulations has identified the likelihood of an irrespirable atmosphere, the mine operator shall provide—
  - (a) suitable self-rescuers for all persons going below ground at the mine; and
  - (b) where necessary, safe havens or facilities below ground for the exchange and recharge of self rescuers.
  - (2) The mine operator shall ensure that every person who has been issued with a self-rescuer—
    - (a) has been instructed how to use it; and
    - (b) does not go below ground without it.
- (3) The mine operator shall ensure that, so far as is reasonably practicable, every person who has been issued with a self-rescuer keeps it within the person's reach at all times when below ground.
- (4) The mine operator shall ensure that all self-rescuers are checked regularly and stored in a suitable place at the mine.
- (5) In this regulation, "safe haven" means a place below ground at a mine which is provided with facilities such that persons may wait there in safety to be rescued or until it is safe to leave.

#### PART 7

## SURVEYORS AND PLANS

#### **Surveyor**

- **58.**—(1) The mine operator shall ensure that there is appointed a suitably qualified and competent person as surveyor of the mine at all times during any period when—
  - (a) mineral is being extracted from the mine, or such extraction is proposed; or
  - (b) there is significant excavation at the mine, or such excavation is proposed.
- (2) Where for any reason a person appointed under paragraph (1) ceases to be the surveyor of the mine during any period mentioned in that paragraph, within a reasonable time after the appointment ceases the mine operator shall appoint another suitably qualified and competent person to be surveyor of the mine.

(3) If, for any reason, no appointment has been made under paragraph (2) within a reasonable time, the only work that may be carried out below ground at the mine is work that is essential to the maintenance of the safety of the mine.

#### Working plans, sections, ventilation plans and geological map

- **59.**—(1) The mine operator shall ensure that—
  - (a) there are—
    - (i) plans of all the workings in a mine from which any mineral is being extracted and of the mine's boundaries and, so far as is practicable, of any other workings which may affect the safety of the mine (whether or not the workings are discontinued or abandoned); and
    - (ii) accurate sections of the seams or vein-systems currently being worked in the mine and of the surrounding strata;
  - (b) the plans required by sub-paragraph (a) include a plan of the system of ventilation at the mine (in this regulation referred to as the "ventilation plan");
  - (c) the plans and sections required by sub-paragraph (a) are—
    - (i) kept for as long as necessary at the mine or (if that is not practicable) at some other convenient place;
    - (ii) prepared and revised at suitable intervals by the surveyor of the mine or a suitably qualified and competent person working under the surveyor's supervision;
    - (iii) prepared in such form and in such quantity as is necessary to enable the mine to be worked safely;
    - (iv) prepared on such a scale and marked with such features as are necessary for—
      - (aa) the provision of accurate information relevant to the safe working of the mine; and
      - (bb) the provision of accurate information on the position and conditions of existing workings and, so far as practicable, workings that have been discontinued or abandoned;
    - (v) marked with the date on which the plan or section was commenced, prepared or revised;
    - (vi) permanently and clearly drawn or printed on suitable and durable material; and
    - (vii) maintained in good condition.
- (2) The mine operator shall retain all relevant information relating to the plans and sections referred to in paragraph (1).
- (3) The mine operator shall ensure that the ventilation plan shows in particular the general direction of the flow of ventilation, the points at which the quantity of air passing is assessed and the location of the principal devices for regulating the flow of ventilation.
  - (4) The mine operator shall ensure that—
    - (a) a suitable geological map of the district in which the mine is situated is kept at the mine; and
    - (b) the geological map shows the boundaries of superficial and drift deposits.
  - (5) If a person ceases to be surveyor of the mine, the mine operator shall ensure that—
    - (a) any plans, sections and relevant information relating to the plans and sections referred to in this regulation that are held by the surveyor are delivered to the mine operator as soon as is reasonably practicable; and
    - (b) where practicable, the person ceasing to be the surveyor prepares a report in writing of the condition of those plans and sections and sends it to the mine operator.

#### PART 8

## TIPS AND TIPPING

## General duty to ensure safety of tips

- **60.** The mine operator shall ensure that tips are designed, constructed, operated and maintained so as to ensure that—
  - (a) instability; or
  - (b) movement,

which is likely to give rise to a risk to the health and safety of any person is avoided.

### Appraisal of tips

- **61.**—(1) The mine operator shall ensure that—
  - (a) a suitable appraisal of all existing or proposed tips at the mine is undertaken by a competent person in order to determine whether any such tip is or, in the case of a proposed tip, would be, a significant hazard;
  - (b) any significant findings made during the appraisal are recorded; and
  - (c) the record is made available to each employer of persons at the mine.
- (2) Where the person undertaking the appraisal concludes that the tip presents no significant hazard, the mine operator shall ensure that a competent person carries out further appraisals—
  - (a) at appropriate intervals;
  - (b) whenever there is any reason to suspect that there has been or will be a significant change to—
    - (i) the matters to which the appraisal relates; or
    - (ii) any neighbouring land which may be affected by movement by or instability of the tip to which the appraisal relates; and
  - (c) whenever there is any reason to doubt the validity of the conclusion of the current appraisal.
- (3) Where the person undertaking the appraisal concludes that the tip represents a significant hazard, the mine operator shall ensure that a geotechnical assessment is carried out in accordance with the requirements of regulation 62 as soon as is reasonably practicable.

#### Geotechnical assessments

- **62.**—(1) For the purposes of this Part—
  - (a) "geotechnical assessment" means an assessment carried out by a geotechnical specialist identifying and assessing all factors liable to affect the stability and safety of a proposed or existing tip; and
  - (b) "geotechnical specialist" means a person who is suitably qualified and competent to perform a geotechnical analysis to determine the hazard and risk arising from the tip being assessed.
- (2) As part of the geotechnical assessment, the geotechnical specialist shall—
  - (a) prepare or consider (as appropriate) the documents and particulars specified in Schedule 2: and
  - (b) consider the tips rules.
- (3) A geotechnical assessment shall include the geotechnical specialist's conclusions on the following, together with reasons—

- (a) the safety and stability of the tip, including whether the tip represents a significant hazard by way of instability or movement;
- (b) where appropriate, whether any remedial work is required in relation to the tip and the date by which such work shall be completed; and
- (c) where appropriate, the date by which the next geotechnical assessment should take place, provided that, in the case of a tip that represents a significant hazard by way of instability or movement, that date is not more than two years after the date of the assessment.
- (4) The geotechnical assessment shall be recorded.
- (5) The mine operator shall ensure that any information available to the mine operator which may be relevant for the purposes of a geotechnical assessment is made available to the geotechnical specialist.
- (6) The mine operator shall ensure that any remedial works identified during the geotechnical assessment in accordance with paragraph (3)(b) are completed by the date specified.

#### Tips which are a significant hazard (notifiable tips)

- **63.**—(1) Where the geotechnical specialist concludes under regulation 62(3)(a) that a tip represents a significant hazard by way of instability or movement (in these Regulations referred to as a "notifiable tip"), the mine operator shall ensure that the tip is subject to a further geotechnical assessment at least every two years.
- (2) The mine operator shall ensure that a geotechnical assessment is undertaken as soon as is reasonably practicable where, in relation to a notifiable tip, there is—
  - (a) any reason to suspect that there has been or will be a significant change to-
    - (i) the matters to which the geotechnical assessment relates, or
    - (ii) any neighbouring land which may be affected by movement by or instability of the tip; or
  - (b) any reason to doubt the validity of the conclusion of the current assessment.

#### **Records of substances tipped**

**64.** The mine operator shall ensure that sufficient records are kept of the nature, quantity and location of all substances accumulated or deposited at a notifiable tip to enable an accurate assessment of the stability of that tip to be made.

## **Notification of tips**

- **65.**—(1) Subject to paragraph (2), the mine operator shall give not less than 30 days' notice in writing to the Executive (or such other period as the Executive may permit) of the mine operator's intention to commence or continue (as appropriate) operations in relation to any—
  - (a) proposed tip which it is reasonable to expect will be a significant hazard; or
  - (b) notifiable tip other than a notifiable tip which was a classified tip within the meaning of the 1995 Regulations and in respect of which notice has been given in accordance with regulation 8(1) (a) of those Regulations.
- (2) Paragraph (1)(b) shall not apply to a tip in relation to which notice of intention to commence operations has been given previously.
  - (3) The notice referred to in paragraph (1) shall be given—
    - (a) in the case of tips falling within paragraph (1)(a), before the commencement of operations; and

<sup>(</sup>a) Regulation 8(1) was amended by S.R. 2006 No 205

- (b) in the case of tips falling within paragraph (1)(b), as soon as possible after the date on which the mine operator receives the geotechnical assessment.
- (4) The following information shall be included in any notice given under paragraph (1)—
  - (a) a brief description of the tip, including its location, size and the material to be excavated or tipped; and
  - (b) in relation to a tip falling within paragraph (1)(b), the geotechnical specialist's conclusions under regulation 62(3).
- (5) Where a geotechnical specialist concludes during the geotechnical assessment of a notifiable tip that the tip no longer presents a significant hazard by way of instability or movement, the mine operator shall give notice in writing of that conclusion and the reasons for that conclusion to the Executive within two months of the geotechnical assessment.

#### Tips rules

- **66.**—(1) Rules required by regulation 12 shall include rules (in these Regulations referred to as "tips rules") for the purpose of ensuring the safe construction and operation of tips.
  - (2) Tips rules shall in particular specify the following matters—
    - (a) the manner in which the activities referred to in paragraph (1) are to be carried out;
    - (b) the nature and extent of supervision of such activities; and
    - (c) the precautions to be taken during such activities to ensure the health and safety of any person and the safety and stability of a tip.

#### Abandoned tips

- **67.**—(1) Subject to regulation 4(8), from the date of a notice of abandonment of a mine any tip that is deemed to form part of that mine (in this regulation referred to as an "abandoned tip") shall cease to be a tip to which these Regulations apply.
- (2) Despite paragraph (1), regulation 68 shall continue to apply in relation to every report or record made in relation to an abandoned tip.

## PART 9

#### **GENERAL**

#### Record keeping

- **68.**—(1) The mine operator shall ensure that—
  - (a) every report or record which is required to be made under these Regulations is in a suitable form and is kept at the mine or at some other suitable place for at least three years from the date on which the report or record was made unless the provision concerned expressly imposes some other requirement; and
  - (b) a copy of the written statement of duties of all persons appointed at the mine under these Regulations is kept at the mine or at some other suitable place for at least 12 months after the date on which the appointment ceased to have effect.
- (2) Paragraph (1)(a) shall apply to copies of information notified to the Executive under these Regulations but shall not apply to the record made in accordance with regulation 5(3) by the owner.

#### Plans of abandoned mines

- **69.**—(1) Where the mine operator gives a notice of abandonment, the mine operator shall, within three months of the date on which the mine is abandoned or the tip is closed, send to the Executive, or a body approved by it, an accurate plan of that mine or tip (as the case may be).
- (2) Where a plan has been sent to the Executive or a body approved by it under paragraph (1), that plan shall be retained by the Executive or that body in accordance with arrangements approved by the Executive.

#### **Exemptions**

- **70.**—(1) Subject to paragraph (4), the Executive may, by a certificate in writing, exempt any mine, part of a mine or class of mines, any person or class of persons, any plant or equipment or class of plant or equipment, or any operation or class of operations from all or any of the requirements and prohibitions in these Regulations.
  - (2) An exemption granted under paragraph (1) may be—
    - (a) subject to conditions; and
    - (b) subject to a time limit.
- (3) An exemption granted under paragraph (1) may be revoked at any time by a certificate in writing.
- (4) The Executive may not grant an exemption under paragraph (1) unless 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, having regard to the circumstances of the case and in particular to—
  - (a) the conditions (if any) it proposes to attach to the exemption; and
  - (b) any other requirements imposed by or under any statutory provision which apply to the case.

#### **PART 10**

# TRANSITIONAL PROVISIONS, REPEALS, REVOCATIONS AND MODIFICATIONS

#### **Transitional provisions: general**

- 71.—(1) Where enforcement action has been initiated against an owner, manager or employer in relation to a mine by the Executive before the date on which these Regulations come into operation, that action shall continue as if the action had been commenced against the mine operator on that date.
- (2) Any action taken by the Executive or an inspector with respect to a mine in relation to any of the relevant statutory provisions in operation before the date these Regulations come into operation shall continue to have effect in relation to the mine operator so that it shall be the duty of the mine operator to carry out any remedial actions or operations that the owner, manager or principal employer of employees at the mine was under an obligation to carry out or achieve immediately before the date on which these Regulations came into operation.
- (3) A document prepared by the owner, manager or an employer at a mine and sufficient for the purposes of the provision in column 1 of table 1 in operation immediately before the coming into operation of these Regulations may be relied upon by the mine operator as evidence that an assessment, process, procedure or scheme required by the corresponding provision of these Regulations in column 2 of table 1 has been made or is in place.

#### Table 1

Column 1	Column 2
Regulation 4(5)(a) of the Mines Miscellaneous	regulation 20(1)
Health and Safety Provisions Regulations	
(Northern Ireland) 1995(a)	
Section 37(1) of the 1969 Act	regulation 42
Regulation 10 of the Mines and Quarries (Tips	regulation 66(1)
and Tipping Plans) Regulations (Northern	
Ireland) 1995	

- (4) Where, immediately before the coming into operation of these Regulations, anything is kept at a place other than a mine in accordance with the relevant statutory provisions, that place shall be deemed to be suitable for the purposes of these Regulations.
- (5) In this regulation, references to enforcement action are to steps taken by an inspector under Articles 22 to 24 and 27 of the 1978 Order in relation to a particular mine or to proceedings instituted under the 1978 Order in any court and requiring the owner, manager, employer or mine operator to do or not to do anything.

#### **Transitional provisions: tips**

- **72.**—(1) A mine operator shall carry out by 31st January 2018 the first appraisal of a tip that, immediately before the coming into operation of these Regulations, was not classified within the meaning of regulation 2(1) of the 1995 Regulations.
- (2) Where, before the date on which these Regulations come into operation, a report has been obtained in accordance with regulation 9(2)(a), 12 (1) or 18(1) of the 1995 Regulations and is less than two years old, that report—
  - (a) shall be treated as a geotechnical assessment for the purpose of regulation 62; and
  - (b) remains valid for two years from the date on which it was made.

#### Repeals and revocations

- 73.—(1) The provisions of the 1969 Act specified in column 1 of Schedule 3 are repealed to the extent set out in the corresponding entry in column 2.
  - (2) The instruments specified in Part 1 of Schedule 4 are revoked in full.
- (3) The instruments specified in column 1 of Part 2 of Schedule 4 are revoked to the extent specified in the corresponding entry in column 2.

## **Modifications**

**74.** The modifications specified in Schedule 5 shall have effect.

Sealed with the Official Seal of the Department for the Economy on 13th December 2016.



Colin Jack
A senior officer of the Department for the Economy

Sealed with the Official Seal of the Department of Justice on 13th December 2016.



Karen Pearson A senior officer of the Department of Justice

## SCHEDULE 1

Regulation 32(7)

## Support System Standards for Coal Mines

- 1. In the case of face workings where props are used—
  - (a) the maximum distance between props in the same row shall be 1.2 metres;
  - (b) the maximum distance between adjacent rows of props shall be 1.2 metres;
  - (c) the sum of the distances between the props in the same row and between adjacent rows of props shall not exceed 2.1 metres;
  - (d) the bars shall always be used above the props where the extracted height exceeds 0.6 metres; and
  - (e) the maximum distance between the row of props closest to the face and the face shall be—
    - (i) where an armoured conveyor is used and persons do not normally work on the face side of the conveyor, 2 metres; and
    - (ii) in all other cases when filling or loading at the face has been completed, 0.9 metres.
- **2.** In the case of face workings where bars are used—
  - (a) the maximum distance between adjacent bars in the same row shall be 1.2 metres; and
  - (b) bars shall be advanced as soon as practicable after extraction and set so that the maximum distance between the end of the bar closest to the face and the face is 0.4 metres.
- 3. In the case of workings where powered supports are used—
  - (a) such supports shall be advanced as soon as practicable after extraction and set so that the maximum distance between the end of the beam closest to the face and the face is 0.5 metres:
  - (b) during normal production at any place where a machine is used which shears mineral to a depth exceeding 0.4 metres, the machine shall not be permitted to approach within 27 metres of any powered support which has not been advanced from the previous cut; and
  - (c) where an immediate forward support system is used, the supports shall be advanced—
    - (i) as close as practicable behind the coal-getting machine, and
    - (ii) in any event, no more than 10 metres behind the coal-getting machine.
- **4.** For the purpose of paragraph 3—
  - (a) "powered support" means a support which is advanced and set to the roof by mechanical energy;
  - (b) "beam" means that part of a powered support system designed to be set to the roof; and
  - (c) "immediate forward support system" means a system of supports designed to be advanced and set to the roof immediately after extraction by a coal-getting machine.
- **5.** In the case of face workings where packs are used—
  - (a) the maximum width of roof exposed by the working of mineral since the completion of the last pack shall be 2.1 metres; and
  - (b) the waste edge parallel to the face shall be no more than 1.5 metres in advance of the front line of pack bounding that waste.
- **6.** In the case of face workings where persons work or pass more than 0.9 metres beyond the front row of props or other supports, temporary supports shall be used and no person may work more than 0.9 metres from a temporary support.

- 7. In this Schedule, "face working"—
  - (a) in relation to a working face at which supports are systematically withdrawn, means all that part of the mine between the face and the front line of the packs, if any, or the last row of supports for the time being maintained, whichever is the further from the face; and
  - (b) in relation to a working face at which supports are not systematically withdrawn, means all that part of the mine between the face and a line parallel to it and 3.7 metres from it.
- 8. In the case of roadways where props and bars are used as the principal support—
  - (a) the maximum distance between adjacent bars shall be 1.2 metres;
  - (b) the minimum number of props per bar shall be 2; and
  - (c) the maximum distance from the last bar to the face shall be 3.5 metres.
- 9. In the case of roadways where steel arches are used as the principal support—
  - (a) the maximum distance between adjacent arches shall be 1.2 metres; and
  - (b) the maximum distance between the last arch before the face and the face shall be 3.5 metres.
- 10. In the case of roadways where rockbolts are used as the principal support—
  - (a) the minimum density of rockbolts in the roof shall be 1 bolt per square metre;
  - (b) the minimum length of rockbolt in the roof shall be 1.8 metres; and
  - (c) the maximum distance between the last completed row of rockbolts and the face shall be 3.5 metres.
- 11. In the case of roadways where machines are used to cut and simultaneously load, the maximum advance per cycle of any such machine shall be 1.2 metres.
  - 12. In the case of roadways where persons work or pass in front of the last permanent support—
    - (a) temporary supports shall be used; and
    - (b) the maximum distance between the last permanent support and the first line of temporary supports shall be 1.2 metres, except where props are used, when that distance shall be 0.9 metres.
- 13. For the purpose of this Schedule, "bar" means a support designed to be set between a prop and the roof.

## Content of Geotechnical Assessments

## **Site Survey**

- **1.** An accurate plan, which should be prepared on a scale not less detailed than 1:2500, showing—
  - (a) the boundaries of the mine or premises on which the mine or tip, or proposed mine or tip, is or is to be situated:
  - (b) the site of the mine or tip, or proposed mine or tip;
  - (c) any contiguous land or structures which might be affected by the mine or the tip or proposed mine or tip; and
  - (d) all mine workings (whether abandoned or not), buried quarry workings, known cave systems, active or former landslips, springs, artesian wells, watercourses and other natural or manmade features including tunnel pipes or culverts which might affect the safety of the mine or tip, or proposed mine or tip, or which might be relevant for the purpose of determining whether mining or tipping operations can be carried out safely,

which plan must be contoured to Ordnance Datum at a vertical interval not greater than 5 metres and orientated to and correlated with the Irish Grid and marked with squares corresponding to the 100 metre squares shown on Ordnance Survey of Northern Ireland sheets on the scale of 1:2500.

#### Site investigation

**2.** A record of all relevant site investigation information including surveys, tests, boreholes and groundwater measurements made for the purpose of the geotechnical assessment together with the results of any testing including the strength of materials within and beneath the tip or within the excavated slope. The record shall include any known historical information relevant to the site investigation.

#### **Cross-sections based on site investigations**

- **3.** Sufficient accurate cross sections on a scale not less detailed than 1:1250 of the site of the tip or proposed tip showing the existing ground surface and all relevant superficial materials and bedrock underlying the site and—
  - (a) any variation in the thickness, level or character of the superficial deposits and bedrock materials based on the site investigation; and
  - (b) the position of any surface whether natural or manmade which may affect the safety of the tip or proposed tip.

#### Plans based on site investigation

**4.** Plans showing the position of all boreholes, wells and trial pits used in the site investigation and the location and levels of all materials and surfaces which may affect the safety of the tip or proposed tip.

#### Assumptions made before analysis

**5.** A record of any assumptions relevant to the assessment of ground conditions relating to the safety of the tip made by the geotechnical specialist, including a record of any relevant information which was not available when undertaking the assessment.

## Findings of analysis

**6.** A record of the calculations carried out in order to determine the safety of the tip, including any variables or parameters used in those calculations and the reasons for using them, and the findings of those calculations expressed as the factor of safety or the probability of failure or other recognised basis of assessing stability.

## Design coming out of analysis

**7.** An accurate plan on a scale not less detailed than 1:2500 recording, in relation to tips or proposed tips, the design of the tip, including the area of land covered or to be covered, the gradients of that land, the designed contours at vertical intervals of not more than 2 metres, the side slopes and boundaries of the tip and the designed position and nature of construction of any wall or other structure retaining or confining the tip.

#### Requirements during and after construction

#### 8. A record of—

- (a) the nature and extent of the inspection, supervision and safety measures necessary to ensure the safety of the tip;
- (b) a specification of necessary engineering works and safety measures; and
- (c) the action to be taken regarding defects specified in the report.

## Regulation 73(1)

## SCHEDULE 3

## Repeals

Enactment	Extent of Repeal		
	Exicu of Repetit		
Mines Act (Northern Ireland) 1969			
Sections 1 to 20	In full		
Section 28	In full		
Sections 30 and 31	In full		
Sections 36 and 37	In full		
Sections 39 to 46	In full		
Sections 48 and 49	In full		
Sections 51 to 56	In full		
Sections 58 to 62	In full		
Sections 64 to 67	In full		
Section 69	In full		
Sections 73 to 77	In full		
Sections 79 and 80	In full		
Sections 83 and 84	In full		
Sections 86 to 91	In full		
Sections 94 and 95	In full		
Section 97	In full		
Section 105	In full		
Sections 112 to 116	In full		
Sections 118 and 119	In full		
Section 120	Subsection (5)		
Section 122	In full		
Sections 126 to 128	In full		
Section 132	In full		
Section 136	In full		
Section 140	In full		
Sections 145 and 146	In full		
Sections 148 and 149	In full		
Section 158	Subsections (2) and (3)(b)		
Section 160	In full		
Section 163	In full		
Schedule 3	In full		
Schedule 5	In full		

## Revocations and partial revocations

#### PART 1

#### Revocations

Miscellaneous Mines (General Regulations) Order (Northern Ireland) 1970(a)

Miscellaneous Mines (Explosives Regulations) Order (Northern Ireland) 1970(b)

Mines (Medical Examinations) Regulations (Northern Ireland) 1970(c)

Mines (Manner of Search for Smoking Materials) Order (Northern Ireland) 1970(d)

Mines (References) Rules (Northern Ireland) 1970(e)

Coal and Other Mines (Ventilation) Regulations (Northern Ireland) 1970(f)

Coal and Other Mines (Precautions against Inrushes) Regulations (Northern Ireland) 1970(g)

Coal and Other Mines (Managers and Officials) Regulations (Northern Ireland) 1970(h)

Coal and Other Mines (Fire and Rescue) Regulations (Northern Ireland) 1970(i)

Coal and Other Mines (First-Aid) Regulations (Northern Ireland) 1970(j)

Coal and Other Mines (Shafts, Outlets and Roads) Regulations (Northern Ireland) 1970(k)

Coal and Other Mines (General Duties and Conduct) Regulations (Northern Ireland) 1970(I)

Coal and Other Mines (Surveyors and Plans) Regulations (Northern Ireland) 1970(m)

Coal and Other Mines (Sanitary Conveniences) Regulations (Northern Ireland) 1970(n)

Coal and Other Mines (Safety-Lamps and Lighting) Regulations (Northern Ireland) 1970(o)

Coal and Other Mines (Mechanics and Electricians) Regulations (Northern Ireland) 1970(p)

Coal and Other Mines (Precautions against Inflammable Dust) Regulations (Northern Ireland)  $1970(\mathbf{q})$ 

Stratified Ironstone, Shale and Fireclay Mines (Explosives) Regulations (Northern Ireland)  $1970(\mathbf{r})$ 

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(a) S.R. 1970 No 104
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<sup>(</sup>**b**) S.R. 1970 No 106

<sup>(</sup>c) S.R. 1970 No 122

<sup>(</sup>d) S.R. 1970 No 123

<sup>(</sup>e) S.R. 1970 No 124

<sup>(</sup>**f**) S.R. 1970 No 125

<sup>(</sup>g) S.R. 1970 No 127

<sup>(</sup>h) S.R. 1970 No.128

<sup>(</sup>i) S.R. 1970 No 129 (j) S.R. 1970 No 131

<sup>(</sup>k) S.R. 1970 No 132

<sup>(</sup>I) S.R. 1970 No 133

<sup>(</sup>m) S.R. 1970 No 135

<sup>(</sup>n) S.R. 1970 No 136

<sup>(</sup>**o**) S.R. 1970 No 138 (**p**) S.R. 1970 No 139

<sup>(</sup>**q**) S.R. 1970 No 140

<sup>(</sup>**r**) S.R. 1970 No 141

Mines (Emergency Egress) Regulations (Northern Ireland) 1975(a)

Mines and Quarries (Repeals and Modifications) Regulations (Northern Ireland) 1980(b)

Mines (Metrication) Regulations (Northern Ireland) 1991(c)

Miscellaneous Mines (Metrication) Regulations (Northern Ireland) 1991(d)

Coal and Other Mines (Metrication) Regulations (Northern Ireland) 1991(e)

Mines and Quarries (Tips and Tipping Plans) Regulations (Northern Ireland) 1995(f)

Mines Miscellaneous Health and Safety Provisions Regulations (Northern Ireland) 1995(g)

Mines (Substances Hazardous to Health) Regulations (Northern Ireland) 1998(h)

Mines (Safety of Exit) Regulations (Northern Ireland) 1998(i)

Escape and Rescue from Mines Regulations (Northern Ireland) 1999(j)

## PART 2

## Partial revocations

Instrument	Extent of revocation
The Health and Safety (First-Aid) Regulations (Northern Ireland) 1982(k)	Regulation 7(d)
The Electricity at Work Regulations (Northern Ireland) 1991(I)	Regulation 2(1), the definitions of "firedamp" and "safety-lamp mine" Regulations 17 to 28 and Schedule 1
The Dangerous Substances and Explosive Atmospheres Regulations (Northern Ireland) 2003( <b>m</b> )	Regulation 3(2)(e)
The Supply of Machinery (Safety) Regulations 2008( <b>n</b> )	Regulation 27(2)(i)

<sup>(</sup>a) S.R. 1975 No 35

**<sup>(</sup>b)** S.R. 1980 No 333

<sup>(</sup>c) S.R. 1991 No 239

<sup>(</sup>d) S.R. 1991 No 371

<sup>(</sup>e) S.R. 1991 No 453

<sup>(</sup>**f**) S.R. 1995 No 296

<sup>(</sup>g) S.R. 1995 No 379

<sup>(</sup>**h**) S.R. 1998 No 67

<sup>(</sup>i) S.R. 1998 No 375

<sup>(</sup>**j**) S.R. 1999 No 173

<sup>(</sup>k) S.R. 1982 No. 429

<sup>(</sup>I) S.R. 1991 No 13

<sup>(</sup>m) S.R 2003 No 152

<sup>(</sup>n) S.I. 2008 No 1597

#### **Modifications**

#### PART 1

#### Modifications to primary legislation

#### **1.** In the 1969 Act:

(a) for section 156 substitute the following—

#### "Meaning of "mine"

**156.**—(1) This section defines "mine" for the purposes of this Act.

- (2) "Mine" means an excavation or system of excavations (including all excavations to which a common system of ventilation is provided) made for the purpose of, or in connection with, the extraction, wholly or substantially by means involving persons working below ground, of—
  - (a) minerals (in their natural state or in solution or suspension), or
  - (b) mineral products.
- (3) A mine is deemed to include so much of the surface (including buildings, structures or works on it) surrounding or adjacent to the shafts or outlets of the mine as is occupied with the mine for the purpose of, or in connection with—
  - (a) working the mine,
  - (b) the storage, treatment or preparation for sale, consumption or use of minerals or mineral products extracted from the mine, or
  - (c) the removal from the mine of minerals or mineral products extracted from it or of refuse from it.
- (4) But a mine is not deemed to include premises in which a manufacturing process is carried on for a purpose other than—
  - (a) working the mine, or
  - (b) the preparation for sale of minerals extracted from the mine.
- (5) Premises used to deposit refuse from a single mine and occupied exclusively by the owner of the mine are deemed to form part of the mine.
- (6) Premises used to deposit refuse from two or more mines and occupied by the owner of one of the mines (either exclusively or jointly with the owner of the other or any of the others) are deemed to form part of whichever of the mines the Executive directs.
- (7) A railway line serving one or more mines, other than a line falling within subsection (3) or belonging to a railway company, is deemed to form part of the mine or (if more than one) of whichever of the mines the Executive directs.
- (8) A conveyor or aerial ropeway provided for the removal from a mine of minerals extracted from it, or of refuse from it, is deemed to form part of the mine.";
- (b) in section 158, for paragraph (a) of subsection (3) substitute the following-
  - "(a) a mine shall be treated as being worked at any time when there are persons at work below ground or plant or equipment is in operation at the mine to maintain the safety of that mine or of any other mine or the operation of driving a shaft or outlet is being undertaken at the mine."

#### PART 2

## Modifications to secondary legislation

- **2.** In the Safety Representatives and Safety Committees Regulations (Northern Ireland) 1979(**a**), in regulation 5(4), omit "section 105 of the Mines Act (Northern Ireland) 1969 or".
  - 3. In the Health and Safety (First Aid) Regulations (Northern Ireland) 1982(b)—
    - (a) in regulation 2, in the definition of "mine", for "section 156 of the Mines Act (Northern Ireland) 1969" substitute "regulation 3 of the Mines Regulations (Northern Ireland) 2016":
    - (b) for regulation 8 substitute—

#### "Application to mines

- **8.**—(1) Subject to paragraph (2), these Regulations (except regulation 3(3) and (4) and regulation 5) shall apply to mines.
  - (2) In their application to mines—
    - (a) regulation 3(1), (2) and (5) and regulation 4 shall have effect as if the mine operator were the employer and as if all persons for the time being at work in the mine were the mine operator's employees; and
    - (b) regulation 3(2) shall be read as if the words "Subject to paragraphs (3) and (4)" were omitted.
- (3) In this regulation, "mine operator" has the meaning given by regulation 2(1) of the Mines Regulations (Northern Ireland) 2016."
- 4. In the Electricity at Work Regulations (Northern Ireland) 1991—
  - (a) in regulation  $3(1)(\mathbf{c})$ 
    - (i) for sub-paragraph (b)(i), substitute—
      - "(i) mine operator, in relation to a mine within the meaning of regulation 3 of the Mines Regulations (Northern Ireland) 2016, and"; and
    - (ii) for "of which he is the manager" substitute "of which he is the mine operator";
  - (b) for regulation 3(3), substitute—
    - "(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; and
      - "mine operator" has the meaning given by regulation 2(1) of the Mines Regulations (Northern Ireland) 2016."; and
  - (c) in regulation 29, for "15,16 or 25" substitute "15 or 16".
- **5.** In the Workplace (Health, Safety and Welfare) Regulations (Northern Ireland) 1993(**d**), for regulation 3 substitute—

#### "Application of these Regulations

3.—(1) These Regulations shall apply to every workplace but shall not apply to—

<sup>(</sup>a) S.R. 1979 No. 437

<sup>(</sup>b) S.R. 1982 No 429

<sup>(</sup>c) Regulation 3(1)(b) was substituted by S.R. 2006 No. 205

<sup>(</sup>d) S.R. 1993 No. 37

- (a) a workplace which is or is in or on a ship, save that regulations 8(1) and (3) and 12(1) and (3) shall apply to such a workplace where the work involves any of the relevant operations in—
  - (i) a shipyard, whether or not the shipyard forms part of a harbour or wet dock; or
  - (ii) dock premises, not being work done-
    - (aa) by the master or crew of a ship;
    - (bb) on board a ship during a trial run;
    - (cc) for the purpose of raising or removing a ship which is sunk or stranded; or
    - (dd) on a ship which is not under command, for the purpose of bringing it under command;
- (b) a workplace which is a construction site within the meaning of the Construction (Design and Management) Regulations (Northern Ireland) 2016, and in which the only activity being undertaken is construction work within the meaning of those Regulations, save that—
  - (i) regulations 18 and 25A apply to such a workplace; and
  - (ii) regulations 7(1A), 12, 14, 15, 16, 18, 19 and 26(1) apply to such a workplace which is indoors; or
- (c) a workplace located below ground at a mine, except that regulation 20 shall apply to such a workplace subject to the modification in paragraph (7).
- (2) Regulation 12 shall not apply to a workplace located above ground at a mine that is a tip (within the meaning of regulation 2(1) of the Mines Regulations (Northern Ireland) 2016).
- (3) In their application to temporary work sites, any requirement to ensure a workplace complies with any of regulations 20 to 25 shall have effect as a requirement to so ensure so far as is reasonably practicable.
- (4) As respects any workplace which is or is in or on an aircraft, locomotive or rolling stock, trailer or semi-trailer used as a means of transport or a vehicle for which a licence is in force under the Vehicle Excise and Registration Act 1994 or a vehicle exempted from duty under that Act—
  - (a) regulations 5 to 12 and 14 to 25 shall not apply to any such workplace; and
  - (b) regulation 13 shall apply to any such workplace only where the aircraft, locomotive or rolling stock, trailer or semi-trailer or vehicle is stationary inside a workplace and, in the case of a vehicle for which a licence is in force under the Vehicle Excise and Registration Act 1994, is not on a public road.
- (5) As respects any workplace which is in fields, woods or other land forming part of an agricultural or forestry undertaking but which is not inside a building and is situated away from the undertaking's main buildings—
  - (a) regulations 5 to 19 and 23 to 25 shall not apply to any such workplace; and
  - (b) any requirement to ensure that any such workplace complies with any of regulations 20 to 22 shall have effect as a requirement to so ensure so far as is reasonably practicable.
  - (6) As respects any workplace that is a quarry—
    - (a) regulation 12 only applies to a floor or traffic route that is located inside a building; and
    - (b) regulation 20 shall apply to such a workplace subject to the modification in paragraph (7).
- (7) In relation to any workplace that is a quarry or located below ground at a mine, the requirement that sanitary conveniences provided under regulation 20 shall be at readily

accessible places shall have effect as a requirement that such sanitary conveniences shall be, so far as is reasonably practicable, at readily accessible places.

- (8) For the purposes of this regulation—
  - (a) "dock premises" means any dock, wharf, quay, jetty or other place at which ships load or unload goods or embark or disembark passengers, together with neighbouring land or water which is used or occupied, or intended to be used or occupied, for those or incidental activities, and any part of a ship when used for those or incidental activities;
  - (b) "mine" means a mine within the meaning of regulation 3 of the Mines Regulations (Northern Ireland) 2016;
  - (c) "relevant operations" means, in relation to a ship, its repairing, refitting, painting and finishing, the scaling, scurfing or cleaning of its boilers (including combustion chambers or smoke boxes) and the cleaning of its bilges or oil-fuel tanks or any of its tanks last used for carrying oil;
  - (d) "ship" includes all vessels and hovercraft which operate on water or land and water;
  - (e) "shipyard" means any yard or dry dock (including the precincts thereof) in which ships or vessels are constructed, reconstructed, repaired, refitted or finished; and
  - (f) "vessel" means any description of craft used for the transport of goods or passengers or the storage of goods or the accommodation of passengers on water, whether used in navigation or not."
- **6.** In the Health and Safety (Enforcing Authority) Regulations (Northern Ireland) 1999(**a**), in regulation 2(1), in the definition of "mine" for "section 156(1) of the Mines Act (Northern Ireland) 1969" substitute "section 156 of the Mines Act (Northern Ireland) 1969".
- 7. In the Lifting Operations and Lifting Equipment Regulations (Northern Ireland) 1999(b), for regulation 9(5), substitute—
  - "(5) This regulation does not apply to winding apparatus to which the Mines Regulations (Northern Ireland) 2016 apply."
  - 8. In the Ionising Radiations Regulations (Northern Ireland) 2000(c) in regulation 4—
    - (a) for paragraph (2) substitute—
      - "(2) Duties under these Regulations imposed upon the employer shall also be imposed upon the mine operator of a mine (within the meaning of regulation 3 of the Mines Regulations (Northern Ireland) 2016) in so far as those duties relate to the mine of which he is the mine operator and to matters under his control.";
    - (b) after paragraph (4) insert—
      - "(5) In this regulation, "mine operator" has the meaning given by regulation 2(1) of the Mines Regulations (Northern Ireland) 2016."
  - **9.** In PUWER, in place of regulation 6(5)(d) substitute—
    - "(d) winding apparatus to which the Mines Regulations (Northern Ireland) 2016 apply;
- **10.** In the Quarries Regulations (Northern Ireland) 2006(**d**) in regulation 3(1)(c) for "section 156 of the 1969 Act" substitute "regulation 3 of the Mines Regulations (Northern Ireland) 2016".

<sup>(</sup>a) S.R. 1999 No.90

<sup>(</sup>b) S.R. 1999 No 304

<sup>(</sup>c) S.R. 2000 No 375

<sup>(</sup>d) S.R. 2006 No. 205

- 11. In the Pressure Systems Safety Regulations (Northern Ireland) 2004(a), in regulation 2(1), in the definition of "user", for paragraph (a) substitute—
  - "(a) a mine within the meaning of regulation 3 of the Mines Regulations (Northern Ireland) 2016 it means the mine operator (within the meaning of regulation 2(1) of those Regulations) for the time being of that mine;".
- **12.** In the REACH Enforcement Regulations 2008(**b**), in paragraph 1(m)(ii) of Part 1 of Schedule 3 for "section 156(1) of the Mines Act (Northern Ireland) 1969" substitute "section 156 of the Mines Act (Northern Ireland) 1969".
- **13.** In the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (Northern Ireland) 1997(c)—
  - (a) in regulation 2(1)—
    - (i) for the definition of "mine" substitute—
    - ""mine" has the meaning given by regulation 3 of the Mines Regulations (Northern Ireland) 2016 and for the purposes of these Regulations includes a tip within the meaning of regulation 4(3)(b) of those Regulations which is associated with such a mine.";
    - (ii) in the definition of "responsible person", in paragraph (a)(i) for "the manager of that mine" substitute "the mine operator (within the meaning of regulation 2(1) of the Mines Regulations (Northern Ireland) 2016) of that mine";
  - (b) in Part 2 of Schedule 2—
    - (i) in paragraph 24, for "regulation 13(1) of the Coal and other Mines (Fire and Rescue) Regulations (Northern Ireland) 1970 or section 79 of the Mines Act (Northern Ireland) 1969" substitute "an escape and rescue plan within the meaning of regulation 54 of the Mines Regulations (Northern Ireland) 2016";
    - (ii) in paragraph 34, for "regulation 4 of the Mines (Safety of Exit) Regulations (Northern Ireland) 1998" substitute "regulation 51 of the Mines Regulations (Northern Ireland) 2016"; and
    - (iii) in paragraph 37, for "Part XI of the Mines Act (Northern Ireland) 1969 applies" substitute "the Mines Regulations (Northern Ireland) 2016 apply".
  - (c) in paragraphs 4(1)(b) and 5(b) of Schedule 5, for "workmen's inspectors exercising the powers conferred on them by section 105 of the Mines Act (Northern Ireland) 1969" substitute "safety representatives exercising the powers conferred on them by regulation 5 of the Safety Representatives and Safety Committees Regulations (Northern Ireland) 1979 in relation to a mine".

<sup>(</sup>a) S.R. 2004 No. 222

<sup>(</sup>b) S.I. 2008/2852

<sup>(</sup>c) S.R. 1997 No 455 as amended by S.R. 2004 No. 196

#### EXPLANATORY NOTE

(This note is not part of the Regulations)

The Mines Regulations (Northern Ireland) 2016 consolidate and modernise the law on health and safety in mines in Northern Ireland. The Regulations implement, as regards Northern Ireland, Council Directive 1992/104/EEC on the minimum requirements for improving the safety and health protection of workers in surface and underground mineral-extracting industries.

In Part 1, regulation 2 defines terms for the purposes of the Regulations, with "mine" being defined in regulation 3. This definition is consistent with the definition of "mine" which is being substituted for the definition in section 156 of the Mines Act (Northern Ireland) 1969 by regulation 74 and Schedule 5.

Part 2 of the Regulations makes general provision for health and safety management. The mine operator is the main duty holder under the Regulations. "Mine operator" is defined in regulation 2 as the person who is in control of the operation of the mine, or who proposes to control its operation, if the mine has not yet been constructed. Part 2 contains a number of duties, including a duty to notify the Health and Safety Executive for Northern Ireland ("the Executive") about the commencement of mining operations or the abandonment of a mine (regulation 6), a duty to have a health and safety document (regulation 9) and a duty to have an appropriate management structure in place (regulation 10). Regulations 14 and 15 make provision for the inspection of the mine and plant and equipment. Regulation 16 requires the mine operator to keep a record of every person who goes below ground and regulation 17 ensures that danger areas are clearly identified. Regulation 18 enables safety representatives to provide reports to the Executive and the mine operator if there is an imminent risk of personal injury.

Part 3 contains duties relating to the control of major hazards at the mine. The mine operator must have in place a fire protection plan (regulation 20) and also, in the case of mines likely to experience a flammable or explosive atmosphere, arrangements to detect the presence, and reduce the level of, flammable gas (regulations 22 and 23). Explosives must be transported, stored, handled and used safely and securely (regulations 28 to 31). Regulation 32 requires the mine operator to assess the risks from ground movement and to take measures to ensure that the mine is kept safe. Schedule 1 contains standards that, if met, are evidence that a coal mine has taken sufficient ground control measures to address any risks identified. Under regulations 33 to 35, inrushes of gas, water or other materials that flow when wet must be prevented. There are provisions (in regulations 36 to 40) about shafts and winding apparatus. In regulations 41 and 42 the mine operator is placed under duties with regard to transport systems.

Part 4 of the Regulations contains duties with regard to ventilation at the mine.

Part 5 of the Regulations sets out requirements relating to the mine environment. Regulations 44 and 45 concern the prevention or reduction of exposure to inhalable dust in coal mines. Regulations 46 and 47 impose duties on the mine operator with regard to lighting.

Part 6 makes provision for safe exit, escape and rescue from the mine. These include requirements (in regulations 48 and 49) with regard to exits from the mine, ways out from places of work within the mine and (in regulation 50) emergency routes and doors. Regulation 51 provides for back up equipment in case any equipment that is used to leave the mine becomes unavailable or breaks down and regulation 52 makes provision for materials in the construction of intake airways to be fire resistant. Regulation 53 contains the duties of the mine operator with regard to escape and rescue. Regulation 54 makes provision about escape and rescue plans. Regulation 55 requires there to be suitable equipment available for use for escape and rescue purposes. Regulation 56 sets

out requirements with regard to staff training, safety drills and the preparation of instructions. Finally, regulation 57 deals with self-rescuers (equipment that provides respiratory protection when escaping from a mine).

Part 7 provides for a surveyor to be appointed for a mine and for the preparation and maintenance of plans of the mine.

Part 8 makes provision for the safety of tips, which must be designed, operated and maintained to avoid instability or movement. There must be appraisals of tips (regulation 61) and, where appropriate, geotechnical assessments (regulation 62). Schedule 2 makes further provision about the content of geotechnical assessments. If a tip is a significant hazard, the mine operator must notify the Executive of tipping operations (regulation 65). When a mine is abandoned, these Regulations cease to apply to any associated tip, unless it is being used by an active mine (regulation 67).

Part 9 of the Regulations contains general provisions relating to the keeping of records under the Regulations, the provision of plans of abandoned mines to the Executive and exemptions from any of the requirements under the Regulations.

Finally, Part 10 contains transitional provisions and introduces the repeals, revocations and modifications contained in Schedules 3, 4 and 5. The majority of extant provisions of the Mines Act (Northern Ireland) 1969 are repealed.

In Great Britain the corresponding legislation is the Mines Regulations 2014 (S.I. 2014/3248). Since any overall costs or savings would be negligible, a Northern Ireland Regulatory Impact Assessment has not been required. A copy of the transposition note in relation to implementation of Directive 1992/104/EEC can be obtained from the Health and Safety Executive for Northern Ireland, 83 Ladas Drive, Belfast, BT6 9FR. A copy of this document is annexed to the Explanatory Memorandum which is available alongside these Regulations at www.legislation.gov.uk.

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