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STATUTORY INSTRUMENTS

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**1999 No. 2463**

**HEALTH AND SAFETY**

**The Mines (Control of Ground Movement) Regulations 1999**

*Made* - - - - *1st September 1999*  
*Laid before Parliament* *13th September 1999*  
*Coming into force* - - *1st December 1999*

The Secretary of State, in exercise of the powers conferred on him by sections 15(1), (2), (3)(a) and (b), (4)(b) and (5)(b) and 82(3)(a) of, and paragraphs 1(1) and (2), 9, 14, 15(1), 16, 18(a), 20 and 21(a) and (b) of Schedule 3 to the Health and Safety at Work etc. Act 1974<sup>(1)</sup> (“the 1974 Act”) and of all other enabling powers for the purpose of giving effect without modification to proposals submitted to him by the Health and Safety Commission under section 11(2)(d) of the 1974 Act after the carrying out by the said Commission of consultation in accordance with section 50(3) of that Act, hereby makes the following Regulations:

**Citation and commencement**

1. These Regulations may be cited as the Mines (Control of Ground Movement) Regulations 1999 and shall come into force on [*1st December 1999*].

**Interpretation**

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

“the 1954 Act” means the Mines and Quarries Act 1954<sup>(2)</sup>;

“the 1993 Regulations” means the Management and Administration of Safety and Health at Mines Regulations 1993<sup>(3)</sup>;

“assessment of ground conditions” means the document referred to and described in regulation 5(b), as revised where necessary in accordance with regulation 5(c);

“design document” means the document referred to and described in regulation 6(1)(a) as revised where necessary in accordance with regulation 6(1)(b);

“the Executive” means the Health and Safety Executive;

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(1) 1974 c. 37; sections 11(2), 15(1) and 50 were amended by Schedule 15 of the Employment Protection Act 1975 (c. 71), paragraphs 4, 6 and 16(3) respectively.  
(2) 1954 c. 70; extended by the Mines and Quarries (Tips) Act 1969 (c. 10); relevant amending instruments are S.I. 1974/2013, 1976/2063, 1988/1729, 1993/1897.  
(3) S.I. 1993/1897, amended by S.I. 1995/2005, 1996/1592.

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

“manager” means in relation to any mine the person who is appointed under regulation 8 of the 1993 Regulations as the manager of that mine and any person who is appointed under regulation 15 of the 1993 Regulations as the manager for a part of that mine who shall be treated for the purpose of these Regulations as the manager in relation to that part;

“mine” means a mine within the meaning of the 1954 Act;

“official of the mine” means a person appointed in the management structure in accordance with regulation 10(1)(b) of the 1993 Regulations or to perform inspections in accordance with regulation 12(2) of those Regulations;

“owner” shall have the meaning assigned to it by sub-sections 181(1) and (4) of the 1954 Act;

“rules” means the rules referred to and described in regulation 7(1)(a), as revised where necessary in accordance with regulation 7(1)(b);

“support material” includes a prop, bar, arch girder, powered support, rockbolt and any other equipment or material designed for the purpose of controlling the movement of the ground.

- (2) In these Regulations, unless the context otherwise requires—
- (a) any reference to a numbered regulation is a reference to the regulation in these Regulations so numbered; and
  - (b) a reference to a numbered paragraph is a reference to the paragraph so numbered in the regulation in which that reference appears.

### **Application**

3. Save where the contrary intention appears, these Regulations shall apply to all mines.

### **Duty to secure safety of the mine**

4.—(1) Subject to paragraphs (2) and (3), it shall be the duty of the manager of every mine to ensure that such ground control measures are taken as may be necessary for keeping secure every place in a mine where people work or pass.

(2) The duty in paragraph (1) above shall be to ensure security against any reasonably foreseeable risk to the health or safety of any person.

(3) Nothing in paragraph (1) shall require the taking of such ground control measures as are referred to in that paragraph with respect to a part of a mine every entrance to which is for the time being provided, in pursuance of regulation 8 of the Mines (Safety of Exit) Regulations 1988(4) with such barrier or enclosure as is therein mentioned.

### **Assessment of ground conditions**

5. The manager of every mine shall ensure that—
- (a) before any excavation is undertaken all factors which are likely to affect the movement of the ground at that place are assessed for the purpose of identifying the ground control measures which may need to be taken in order to comply with regulation 4;
  - (b) the assessment is recorded in a document (referred to in these Regulations as the “assessment of ground conditions”); and
  - (c) the assessment of ground conditions is 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.

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(4) [S.I. 1988/1729](#), amended by [S.I. 1995/3163](#).

## **Design document**

- 6.—(1) The manager of every mine shall ensure that—
- (a) a document is prepared which, taking into account the assessment of ground conditions, describes those ground control measures which may need to be taken in order to comply with regulation 4 (referred to in these Regulations as the “design document”); and
  - (b) the design document is reviewed and, where appropriate, revised whenever there is a revision to the assessment of ground conditions.
- (2) Regulation 35(1) of the 1993 Regulations shall apply to the design document as it applies to reports and records.

## **Rules concerning the implementation of ground control measures**

- 7.—(1) The manager of every mine shall ensure that—
- (a) there are prepared suitable and sufficient rules (referred to in these Regulations as the “rules”) which set out the ground control measures described under regulation 6(1) and instructions on how to implement them; and
  - (b) the rules are reviewed and, where appropriate, revised whenever there is a revision to the design document.
- (2) The manager shall take such measures as are necessary to ensure that each person at work in the mine understands the rules which are relevant to that person.
- (3) Without prejudice to paragraph (2), the manager shall ensure that relevant extracts of the rules are—
- (a) posted in such a way that they can be seen easily and read by persons who work in the mine at the entrance to that part of the mine to which they apply; and
  - (b) made available to all persons at work in the mine whose duties include taking ground control measures or who have the responsibility of ensuring that such measures are taken.
- (4) Nothing in these Regulations or in the rules shall prevent a person at work in a mine from installing support material additional to that which is required in the rules and which he has reason to believe is necessary for the purpose of securing the safety of himself or another.
- (5) A rule which is inconsistent with the provisions of any relevant statutory provision shall to the extent of the inconsistency be of no effect.

## **Notification of significant changes to ground control measures**

- 8.—(1) This regulation shall apply to every mine of coal.
- (2) Not less than 28 days before making any significant change to any existing ground control measure in use at a mine, the manager of a mine to which this regulation applies shall—
- (a) notify the Executive in writing of the significant change proposed; and
  - (b) supply the Executive with a copy of such parts of the assessment of ground conditions, the design document and the rules for that mine as may be relevant to the significant change proposed.
- (3) For the purposes of this regulation, a significant change to an existing ground control measure in use at the mine shall include any change which—
- (a) results in a ground control measure being used at the mine for the first time; or
  - (b) would result in a departure from the support system standards specified in the Schedule to these Regulations,

but shall not include a temporary change to any existing ground control measure in use in part of a mine where that change is made for the purposes of health and safety in consequence of an emergency or some other circumstance which was not reasonably foreseeable.

(4) In determining whether a ground control measure is being used at a mine for the first time, no account shall be taken of a ground control measure used temporarily in accordance with paragraph (3).

(5) No person shall begin work to implement a significant change to any existing ground control measure in use at a mine until the 28 days referred to at paragraph (2) have elapsed unless the Executive agrees otherwise in writing.

### **Implementation of the rules and installation of support material by officials**

9. Every official of a mine shall take all reasonable steps to ensure that—

- (a) the rules are implemented; and
- (b) there is installed any support material which is additional to that which is required in the rules and which he has reason to believe is necessary for the purpose of securing the safety of himself or another.

### **Assessment of adequacy of ground control measures**

10. The manager of every mine shall ensure that—

- (a) an appropriate scheme for assessing the adequacy of the ground control measures in controlling the movement of the ground is prepared and implemented;
- (b) account is taken of any such assessment in the fulfilment of his duties under these Regulations; and
- (c) the assessment is recorded.

### **Supply of materials**

11.—(1) No person shall install any support materials in a mine other than those provided by the owner of the mine.

(2) The manager of every mine shall ensure that a sufficient supply of suitable support material is at all times readily available at any place in the mine where a person whose duties include its installation (referred to in this regulation as “the installer”) needs it for the purpose of keeping that place secure.

(3) Where a sufficient supply of suitable support material is not readily available in accordance with paragraph (2) the installer shall withdraw to a place of safety and immediately report to an official of the mine that he has done so.

(4) Where it appears to an official of a mine that a sufficient supply of suitable support material is not readily available in accordance with paragraph (2) then the official shall instruct the installer to withdraw to a place of safety.

(5) Where in pursuance of either paragraph (3) or (4) the installer withdraws to a place of safety no official of the mine shall permit the installer to return to his working place until that official is satisfied that the support material required under paragraph (2) is readily available.

### **Installation of support material**

12.—(1) Any person who is installing support material shall install that material in accordance with the rules.

(2) Any person whose duties include the installation of support material at any place in a mine shall, where any part of the roof or sides at that place has become exposed and support material is needed for the purpose of keeping the exposed area safe—

- (a) immediately install support material; or
- (b) if he is unable to comply with sub-paragraph (a), immediately withdraw to a place of safety, prevent access to the exposed area and report the matter to an official of the mine.

(3) If it appears to any person whose duties include the installation of support material at any place in a mine that any such material at that place has become unsuitable or unstable, he shall—

- (a) replace or make stable that support material as soon as possible, or
- (b) if he is unable to comply with sub-paragraph (a), immediately withdraw to a place of safety, prevent access to the place at which the support material has become unsuitable or unstable and report the condition of the support material to an official of the mine.

(4) Any official of the mine who has received notification under paragraph (2)(b) or paragraph (3)(b), shall take all reasonable steps to ensure that—

- (a) any person working or passing in the place where the support material needs to be installed, replaced or made stable, as the case may be, withdraws to a place of safety;
- (b) access to that place is prevented; and
- (c) as the case may be and as soon as possible, support material is installed or the support material which has become unsuitable or unstable is replaced or made stable.

### **Withdrawal of support material**

**13.** No person shall withdraw support material from any place in a mine other than by a safe method and from a position of safety.

### **Fall of roof or sides**

**14.** Where it appears to an official of a mine that any fall of roof or sides has rendered unsuitable or unstable any place in the mine where any person is likely to work or pass the official shall take all reasonable steps to ensure—

- (a) that the roof or sides at the place in question is made secure before clearing debris, except to the extent that clearance is necessary for the installation of support material; or
- (b) if he is unable to comply with (a), that no person works or passes in the place where such fall has occurred, except in accordance with any directions given by the manager.

### **Certificates of exemption**

**15.—**(1) Subject to paragraph (2) the Executive may, by a certificate in writing, exempt from all or any requirements or prohibitions imposed by these Regulations, any mine, or part of a mine or class of mines and any such exemption may be granted subject to conditions and to a limit of time and may be revoked by a certificate in writing at any time.

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

- (a) the conditions, if any, which it proposes to attach to the exemption; and
- (b) any other requirements imposed by or under any enactment which apply to the case,

it is satisfied that the health and safety of persons who are likely to be affected by the exemption will not be prejudiced.

### **Disapplication of section 157 of the 1954 Act**

16. Section 157 of the 1954 Act shall not apply to any legal proceedings or prosecution which are based on an allegation of a contravention of these Regulations.

### **Amendments**

17. In—

- (a) sub-paragraph (3)(a) of regulation 7 of the Borehole Sites and Operations Regulations 1995<sup>(5)</sup>; and
- (b) sub-paragraph (3)(a) of regulation 4 of the Mines Miscellaneous Health and Safety Provisions Regulations 1995<sup>(6)</sup>,

the words from “and revised” to the end of each sub-paragraph shall be deleted.

### **Repeals and revocations**

18.—(1) Sections 48 to 54 of the 1954 Act are hereby repealed.

(2) The Coal and Other Mines (Support) Regulations 1966<sup>(7)</sup> are hereby revoked.

Signed by authority of the Secretary of State.

*Whitty*  
Parliamentary Under-Secretary of State,  
Department of the Environment, Transport and  
the Regions

1st September 1999

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<sup>(5)</sup> S.I. 1995/2038.

<sup>(6)</sup> S.I. 1995/2005.

<sup>(7)</sup> S.I. 1966/881 as amended by S.I. 1974/1075, 1975/1102.

## SCHEDULE

Regulation 8(3)

### SUPPORT SYSTEM STANDARDS FOR MINES OF COAL

#### PART I

##### SUPPORT SYSTEM STANDARDS FOR FACE WORKINGS

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 props in the same row and between adjacent rows of props shall not exceed 2.1 metres;
  - (d) 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 should be advanced as soon as is practicable after extraction and set so that the maximum distance between the end of the bar closest to the face and the face shall be 0.4 metres.
3. In the case of face workings where powered supports are used—
  - (a) such supports should be advanced as soon as is practicable after extraction and set so that the maximum distance between the end of the beam closest to the face and the face shall be 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 said machine must 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 is practicable behind the coal getting machine, and
    - (ii) in any event, no more than 10 metres behind the coal getting machine.
4. For the purposes 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

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- (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 Part, “face working” 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 further from the face and 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 distant from it.

## **PART II**

### **SUPPORT SYSTEM STANDARDS FOR ROADWAYS**

- 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 purposes of this Schedule “bar” means a support designed to be set between a prop and the roof.



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## EXPLANATORY NOTE

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

1. These Regulations impose health and safety requirements with respect to the control of ground movement in mines. Existing provisions which are replaced by these Regulations are repealed or revoked (regulation 18).

2. The Regulations impose duties upon managers of mines and officials of mines as defined in regulation 2(1).

3. The Regulations make provision with respect to—

- (a) the taking of ground control measures as defined in regulation 2(1) (regulation 4);
- (b) the assessment of ground conditions and the review and revision of any such assessment (regulation 5);
- (c) the preparation of a design document and the review and revision of any such document (regulation 6);
- (d) rules setting out ground control measures and instructions on how to implement them (regulation 7);
- (e) notification to the Executive of any significant change to existing ground control measures in use at a mine of coal (regulation 8 and the Schedule to these Regulations);
- (f) implementation of the rules required under regulation 7 and the installation of support material (regulation 9);
- (g) the preparation and implementation of a scheme for assessing the adequacy of ground control measures (regulation 10);
- (h) the supply, installation and withdrawal of support material (regulations 11 to 13);
- (i) falls of the roof or sides of a mine in any place where a person is likely to work or pass (regulation 14);
- (j) the granting of exemptions from any requirement or prohibition of the Regulations in specified circumstances by the Executive (regulation 15);
- (k) the disapplication of section 157 of the 1954 Act in specified circumstances (regulation 16);
- (l) the amendment of specified instruments (regulation 17).

4. A copy of the regulatory impact assessment prepared in respect of these Regulations can be obtained from the Economic Adviser's Unit, the Health and Safety Executive, Rose Court, 2 Southwark Bridge, London SE1 9HS. A copy has been placed in the library of each House of Parliament.