1970. No. 132 [C]

COAL AND OTHER MINES

Shafts, Outlets and Roads

REGULATIONS, DATED 1ST JUNE 1970, MADE BY THE MINISTRY OF COMMERCE UNDER SECTIONS 13(2), 28(1), 32(1), 39(1), 40(1), 42(4), 45 AND 120 OF THE MINES ACT (NORTHERN IRELAND) 1969.

WHEREAS in pursuance of Part I of Schedule 2 to the Mines Act (Northern Ireland) 1969(a) the Ministry of Commerce has published notice of its intention to make the following regulations and has not received any objection to the draft thereof in respect to which it is required to refer the draft regulations for inquiry and report:

NOW, THEREFORE, the Ministry of Commerce in exercise of the powers conferred on it by sections 13(2), 28(1), 32(1), 39(1), 40(1), 42(4), 45 and 120 of the Mines Act (Northern Ireland) 1969 and of all other powers enabling it in that behalf, hereby makes the following regulations:—

PART I

GENERAL

Citation

1. These regulations may be cited as the Coal and Other Mines (Shafts, Outlets and Roads) Regulations (Northern Ireland) 1970.

Application

2. These regulations shall apply to every mine of coal, stratified ironstone, shale or fireclay, and in these regulations unless otherwise expressly provided, "mine" means such a mine.

Interpretation

3.—(1) In these regulations the following expressions have the meanings hereby respectively assigned to them, that is to say—

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

"banksman" has the meaning assigned thereto in regulation 29;

"deputy" has the meaning assigned thereto in the Coal and Other Mines (Managers and Officials) Regulations (Northern Ireland) 1970(b);

"kibble" includes any form of bucket, basket or barrel in which things can be raised or lowered in a shaft or staple-pit in the course of being sunk;

"locomotive" means a mechanically propelled vehicle running on rails and constructed or used for hauling other vehicles;

"mine" has the meaning assigned thereto in regulation 2;

"the Ministry" means the Ministry of Commerce;

"onsetter" has the meaning assigned thereto in regulation 29;

"travelling onsetter" has the meaning assigned thereto in regulation 40.

(a) 1969. c. 6 (N.I.). (b) S.R. & O. (N.I.) 1970, No. 128.

(2) Any reference to a shaft or staple-pit in the course of being sunk shall (unless the contrary intention appears) include a reference to a shaft or staple-pit being driven upwards.

(3) Without prejudice to section 151 of the Act, for the purposes of these regulations anything for the time being approved under the corresponding provision of the Mines and Quarries Act 1954(c) or regulations made thereunder shall be deemed to be approved by the Ministry, unless the Ministry, by notice published in the *Belfast Gazette* and otherwise brought to the notice of persons concerned in such manner as the Ministry thinks fit, directs that it shall not be so deemed.

(4) Expressions to which meanings are assigned by the Act or by these regulations shall (unless the contrary intention appears) have the same meanings in any document issued under the provisions of these regulations.

PART II

WINDING AND HAULAGE APPARATUS IN SHAFTS, STAPLE-PITS AND UNWALKABLE OUTLETS

4. At any shaft or unwalkable outlet which is provided at a mine for affording to persons employed below ground therein means of ingress or egress and in the case of which the vertical distance between the top of the shaft or the point at which the outlet reaches the surface, as the case may be, and the lowest entrance to the shaft or outlet exceeds one hundred and fifty feet, being a shaft or outlet at a mine at which more than thirty persons are employed below ground, the apparatus for carrying persons provided in pursuance of subsection (1) of section 28 of the Act shall be mechanically operated winding apparatus or mechanically operated rope haulage apparatus as the case may be.

5. Where mechanically operated winding apparatus or mechanically operated rope haulage apparatus is used for carrying persons through any shaft, staple-pit or unwalkable outlet, the engine shall be firmly fixed and completely separated by a substantial partition from any other such engine which is or may be in use at the same time and also from any other machinery:

Provided that the Ministry may by notice served on the manager of the mine exempt an engine from the requirements of this regulation.

6. Where mechanically operated winding apparatus or mechanically operated rope haulage apparatus comprises a drum shaft not less than ten inches in diameter, that drum shaft shall be bored longitudinally at the centre.

Brakes and indicator

7.—(1) Where mechanically operated winding apparatus or mechanically operated rope haulage apparatus is used for carrying persons through a shaft, staple-pit or unwalkable outlet, there shall be provided one or more brakes on the drum or drum shaft being brakes which—

(*a*) if there are two cages or carriages, will hold the drum stationary when the loads are balanced and the maximum torque is applied thereto in either direction by the engine; or

(c) 2 & 3 El. 2. c. 70.

(*b*) if there is only one cage or carriage, will hold the drum stationary when a fully loaded cage or carriage is half way down the shaft, staple-pit or outlet and the maximum torque is applied thereto downwards by the engine:

Provided that the Ministry may by notice served on the manager of the mine exempt an engine from the requirements of this paragraph.

(2) Where such apparatus is so used, there shall be provided a suitable indicator (not being merely a mark on the rope or drum) showing the position of each cage or carriage in the shaft, staple-pit or outlet. That indicator shall be so placed as to be seen easily by the person operating the engine.

(3) Where winding apparatus or rope haulage apparatus (not being mechanically operated winding apparatus or rope haulage apparatus) is installed at a shaft, staple-pit or unwalkable outlet, there shall be provided on the drum or drum shaft a locking device or brake which will hold the drum stationary when a fully loaded cage or carriage is at any point in the shaft, staple-pit or outlet.

(4) In this regulation "drum" and "drum shaft" shall include a sheave and sheave shaft respectively and in relation to a shaft or staple-pit in the course of being sunk "cage" shall include a kibble.

Flanges and horns

8. Where mechanically operated winding apparatus or mechanically operated rope haulage apparatus is used for carrying persons through a shaft, staple-pit or unwalkable outlet, there shall be provided on the drum or sheave such flanges or horns and, if the drum is conical, such other devices as will prevent the rope from slipping off.

Prevention of overwinding

9.—(1) Where mechanically operated winding apparatus or mechanically operated rope haulage apparatus is ordinarily used for carrying persons through a shaft or unwalkable outlet and the speed of winding or haulage can exceed twelve feet per second, there shall be provided an effective automatic contrivance to prevent overwinding so constructed as—

(*a*) to prevent the descending cage or carriage from being landed at the lowest entrance to, or the bottom of, the shaft or unwalkable outlet at a speed exceeding five feet per second; and

(*b*) to control the movement of the ascending cage or carriage to prevent danger to any persons therein.

(2) Unless such automatic contrivance is in full and fixed engagement with the engine, it shall be fully engaged whenever persons are to be carried through the shaft or outlet, and there shall be provided an automatic indicator, in such position at the top of the shaft or outlet as to be easily seen by any person transmitting signals therefrom, showing whether or not the contrivance is so engaged.

(3) The Ministry may, if an inspector is of opinion that special circumstances subsist at any mine, by notice served on the manager thereof exempt any such winding or haulage apparatus thereat from the requirements of this regulation.

Construction of cages and carriages and apparatus ancillary thereto

10.—(1) No person shall be carried through a shaft or unwalkable outlet otherwise than in a cage or carriage which complies with the requirements of the next following paragraph except—

(*a*) for the purposes of sinking operations; or

(*b*) for the purposes of examining or repairing a shaft or outlet or any machinery or appliances therein; or

(*c*) for the purposes of accompanying bulky materials that cannot be raised or lowered in such a cage or carriage; or

(*d*) in pursuance of a notice of exemption served by the Ministry on the manager of the mine.

(2) Every cage or carriage which is used for carrying persons through a shaft or unwalkable outlet shall be covered in completely at the top, closed in at the two sides sufficiently to prevent persons or things projecting beyond the sides and provided with suitable gates at the ends and with a rigid bar easily reached by all persons in it.

(3) The door or gate of every cage used for carrying persons through a shaft shall be so constructed and installed that it cannot project beyond the side or end of the cage:

Provided that the Ministry may by notice served on the manager of a mine exempt any such cage thereat from the provisions of this paragraph.

11. Every cage or carriage which is used for carrying vehicles through a shaft, staple-pit or unwalkable outlet shall be provided with catches or other suitable contrivances to prevent them from falling out.

Guides

12. In every shaft and staple-pit provided with winding apparatus, being a shaft or staple-pit in the case of which the distance between the top thereof and the lowest entrance thereto exceeds one hundred and fifty feet, or being a shaft or staple-pit in the course of being sunk of a depth exceeding three hundred feet, guides shall be provided for the cage or kibble:

Provided that the Ministry may by notice served on the manager of the mine exempt a shaft or staple-pit from the requirements of this regulation.

Keps

13.—(1) In every shaft keps for supporting cages when at rest shall be provided at the highest landing to which the cages are raised, may be provided at the lowest entrance to the shaft but shall not be provided at any intermediate entrance thereto.

(2) Nothing in the last preceding paragraph shall require the provision of keps in a shaft in which the cages are raised and lowered by means of the friction of a rope on a winding sheave and the Ministry may by notice served on the manager of the mine exempt any other shaft from that requirement.

(3) Keps shall be used when persons are entering or leaving a cage at a place at which they are provided.

Detaching gear

14.—(1) Where mechanically operated winding apparatus is ordinarily used for carrying persons through a shaft, there shall be provided appropriate gear for detaching each cage from the rope and holding it stationary in the event of overwinding when it is ascending.

(2) The Ministry may, if an inspector is of opinion that special circumstances subsist at any mine, by notice served on the manager thereof exempt any such winding apparatus thereat from the requirements of this regulation.

Winding and haulage ropes

15.—(1) No spliced rope shall be used for winding or haulage in a shaft, staple-pit or unwalkable outlet in which persons are raised or lowered:

Provided that nothing in this paragraph shall prevent the use of an endless rope in an unwalkable outlet.

(2) No rope shall be so used for more than, in the case of a rope used in a shaft or staple-pit, three and a half years, or, in the case of a rope used in an unwalkable outlet, two and a half years:

Provided that if an inspector, having regard to the condition of the rope and to the extent to which and the circumstances in which it has been used, is satisfied that it can be used for such winding or haulage for a further period without danger, the Ministry may by notice served on the manager of the mine authorise such use of that rope for a further period.

(3) No rope installed after the commencement of the Act shall be so used unless it is of a type which has been found to withstand a load of at least six and a half times the maximum static load which may ordinarily be suspended on that rope where a cage is raised or lowered:

Provided that the Ministry may by notice served on the manager of a mine exempt any such rope thereat from the provisions of this paragraph.

Maintenance of shafts, staple-pits and unwalkable outlets and of winding and haulage apparatus used therein

16. At every mine a competent person appointed for that purpose by the manager shall at intervals not exceeding seven days, or, in the case of a shaft or staple-pit in the course of being sunk, or of an unwalkable outlet in the course of being driven, twenty-four hours, examine thoroughly the state of every part of any shaft, staple-pit and unwalkable outlet through any part of which persons are carried, and shall forthwith make and sign in a book provided for the purpose by the owner of the mine a full and accurate report of the result of the examination:

Provided that the Ministry may by notice served on the manager of the mine exempt any part of a shaft, staple-pit or unwalkable outlet thereat from the provisions of this regulation.

17.—(1) Without prejudice to the generality of regulations 8 and 9 of the Coal and Other Mines (Mechanics and Electricians) Regulations (Northern Ireland) 1970(**d**) it shall be the duty of the manager of every mine to ensure that a scheme for the systematic examination of plant at that mine made in pursuance of the said regulation 9 provides for the matters specified in the following paragraphs of this regulation.

(2) Provision shall be so made for the thorough examination at intervals not exceeding twenty-four hours of the external parts of any winding or haulage apparatus (including any apparatus ancillary thereto) which is in use for carrying persons through any shaft, staple-pit or unwalkable outlet.

(**d**) S.R. & O. (N.I.) 1970, No. 139.