

1960 No. 1015

The Coal Mines (Firedamp Drainage) Regulations, 1960

Made - - - -	12th June, 1960
Laid before Parliament	21st June, 1960
Coming into Operation	1st July, 1960

The Minister of Power in pursuance of the powers conferred upon him by section one hundred and forty-one of the Mines and Quarries Act, 1954(a), and of all other powers him enabling hereby orders that the following regulations shall have effect :—

Commencement and citation

1. These regulations shall come into operation on the first day of July, nineteen hundred and sixty, and may be cited as the Coal Mines (Firedamp Drainage) Regulations, 1960.

Interpretation

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

“borehole” has the meaning assigned thereto in regulation five ;

“calorimeter room” has the meaning assigned thereto in regulation twelve ;

“exhauster house” has the meaning assigned thereto in regulation twelve ;

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

“firedamp drainage” means the collecting of firedamp in a mine before it has been diluted by any ventilation therein and its safe disposal ;

“firedamp drainage system” includes any system of firedamp drainage other than one which consists merely of a pipe placed in a roadside pack for the purpose of collecting firedamp which has accumulated behind the pack and conveying it to a point in the road where it can be discharged safely ;

“mine” has the meaning assigned thereto in regulation three ;

“the Minister” means the Minister of Power.

(2) The Interpretation Act, 1889(b), shall apply to the interpretation of these regulations as it applies to the interpretation of an Act of Parliament.

Application

3. These regulations shall apply to every mine of coal, and in these regulations “mine” means such a mine.

Exemptions

4. An inspector may by notice served on the manager of any mine exempt the mine or part thereof, or any thing or class of things thereat, from the application of any provision of these regulations if he is satisfied that the safety of persons employed at the mine will not be prejudiced in consequence of the granting of the exemption.

Boreholes

5.—(1) The manager of every mine shall ensure that before any person drills any hole required for the purpose of tapping firedamp and draining it through any firedamp drainage system (hereinafter referred to as a "borehole") there is available a pipe in which any firedamp that may be tapped may be collected and conveyed to a point where it may be discharged safely.

(2) No person shall drill any borehole unless, as soon as the depth of the borehole renders it practicable, the borehole is drilled through a device with which the borehole may be sealed in the event of a sudden flow of firedamp from it.

(3) Before any person commences to drill any borehole in stone he shall ensure that water is flowing through the drill rods, and, after commencing to drill any such borehole and for as long as the rods continue to rotate, he shall ensure that water continues to flow through the drill rods and is flowing out of the mouth of the borehole.

6. The manager of every mine shall ensure that facilities are provided at each borehole to permit the measurement from time to time of the percentage by volume of inflammable gas in the gaseous mixture flowing through the borehole.

Stand pipes

7. The manager of every mine shall make and ensure the efficient carrying out of arrangements to secure that—

- (a) each stand pipe forming part of a firedamp drainage system is so inserted and sealed in the borehole from which it leads that leakage of firedamp or air around the pipe is minimised; and
- (b) no such stand pipe is joined to a pipe range by other than a flexible connection.

Pipe Ranges

8. The manager of every mine shall ensure that—

- (a) no pipe range forming part of a firedamp drainage system is installed in any shaft or outlet, being a shaft or outlet through which air enters the mine; and
- (b) each such pipe range installed in the mine is—
 - (i) so designed and constructed as to permit, at suitable places along its length, samples of the firedamp flowing through it to be taken and water to be drained from it;
 - (ii) adequately supported; and
 - (iii) so painted that there is a yellow band near to every joint in the range.

9. The manager of every mine shall ensure that no pipe is connected to any pipe range through which firedamp is flowing unless it is connected in a way which will minimise the amount of air drawn into the pipe range.

Valves

10. The manager of every mine shall ensure that each valve in any firedamp drainage system is painted yellow.

Exhausters

11. The manager of every mine shall ensure that—

(a) no exhauster is installed in any firedamp drainage system unless—

(i) it is of a type and description approved by the Minister ;

(ii) it is so constructed and installed that when it is not working firedamp will not be able to flow through the exhauster in the reverse direction to that in which it would flow if the exhauster were working ; and

(iii) it and the system are so arranged that when the exhauster is not working the firedamp may be caused to by-pass the exhauster and allowed to flow freely through the system ; and

(b) no exhauster forming part of any firedamp drainage system is used to pump firedamp unless it is connected to earth in such a manner as will ensure immediate electrical discharge without danger.

Exhauster houses and calorimeter rooms

12.—(1) The manager of every mine shall ensure that—

(a) no exhauster is installed on the surface in any firedamp drainage system unless it is housed in a suitably constructed building or part thereof (such a building or part thereof being hereinafter referred to as an "exhauster house") which shall be used exclusively for the purpose ; and

(b) no electrical apparatus is installed in any exhauster house or at any place on the surface where firedamp is monitored or its heat content is ascertained (such a place being hereinafter referred to as a "calorimeter room") unless it is of a type which the Minister has certified as being intrinsically safe or flameproof.

(2) No person shall take into or use in any exhauster house or calorimeter room any lamp or light other than a permitted light :

Provided that nothing in this paragraph shall prevent the taking into, or use in, a calorimeter room of—

(a) any calorimeter or device for monitoring firedamp, being a calorimeter or device which depends for its operation on a naked flame ; or

(b) any light for the purpose of lighting any such calorimeter or monitoring device therein.

(3) After the first day of July, nineteen hundred and sixty-one, no such calorimeter or monitoring device shall be used in connection with any firedamp drainage system unless it is contained in an enclosure which is ventilated independently of the calorimeter room.

(4) No person shall open any enclosure provided pursuant to the last preceding paragraph or take into, or use in, any calorimeter room any naked light unless he has satisfied himself that it is safe to do so.

Discharge of firedamp

13. The manager of every mine shall ensure that—

(a) each point of discharge of every firedamp drainage system, not being a point of discharge into a utilisation plant, is, so far as is practicable, kept free from anything likely to ignite firedamp ;

- (b) each such system which discharges firedamp on the surface is fitted with a sufficient number of suitable flame traps to prevent flames from entering the system from each point of discharge on the surface ;
- (c) no such system discharges into a utilisation plant firedamp containing less than forty per cent. by volume of inflammable gas ;
- (d) no such system discharges firedamp into any intake airway ; and
- (e) no such system discharges firedamp below ground except at a point of discharge which is surrounded by a fence placed at such a distance from it as will ensure that the percentage of inflammable gas in the air at each part of the fence during any discharge of firedamp at that point will not exceed two per cent. by volume.

Supervision of exhausters and pressure control chambers

14. The manager of every mine in which a firedamp drainage system has been installed which contains an exhauster or a pressure control chamber or both shall appoint and instruct in their duties competent persons to be in charge of such apparatus and shall make arrangements to secure that each piece of such apparatus when in use is in the personal charge of a person so instructed and appointed.

Dated this twelfth day of June, nineteen hundred and sixty.

Richard Wood,
Minister of Power.

EXPLANATORY NOTE

(This note is not part of the regulations, but is intended to indicate their general purport.)

These regulations, which are made by the Minister of Power under section 141 of the Mines and Quarries Act, 1954, apply to the collecting of firedamp in coal mines before it has been diluted by any ventilation therein and its safe disposal (this process being referred to as "firedamp drainage"). An inspector is empowered by regulation 4 to exempt any mine or part thereof or any thing at a mine from the application of any provision of the regulations if he is satisfied that the safety of persons employed at the mine will not be prejudiced thereby.

Regulation 5 deals with the precautions that should be taken and the equipment that should be provided when boreholes are drilled for the purpose of tapping firedamp. Regulation 6 requires that facilities should be provided at each borehole for measuring the gas flowing through it.

Regulation 7 contains requirements regarding the insertion and sealing of stand pipes in boreholes and the joining of a stand pipe to a pipe range.

Regulation 8 contains requirements regarding the installation, design, construction and painting of pipe ranges. Regulation 9 deals with the precautions to be taken against allowing the air to be drawn into a pipe range when a pipe is connected thereto. Regulation 10 deals with the painting of any valves in a firedamp drainage system.

Regulation 11 deals with the installation, design and earthing of any exhaustor in a firedamp drainage system.

Regulation 12 contains requirements relating to the housing of an exhaustor on the surface and the precautions to be taken in an exhaustor house or calorimeter room and to the use of lamps or lights therein.

Regulation 13 requires that certain precautions are taken at the discharge points of firedamp drainage systems.

Regulation 14 requires the manager of a mine in which a firedamp drainage system containing an exhaustor or pressure control chamber has been installed, to secure the supervision of such apparatus by competent persons appointed by him and instructed in their duties.