

# Mines and Quarries Act 1954

## **1954 CHAPTER 70**

## PART III

## SAFETY, HEALTH AND WELFARE (MINES)

Provisions for securing safe Ingress and Egress

### 22 Provision of shafts and outlets in coal, and c, mines

- (1) Subject to the provisions of this section, it shall not be lawful for any persons to be employed below ground in a mine of coal, stratified ironstone, shale or fireclay unless there are available, for affording to them alternative, and ready, means of ingress and egress, two shafts or outlets (whether belonging exclusively to that mine or not) which, except where they were sunk before the first day of January, eighteen hundred and sixty-five, are at no point separated from each other by less than forty-five feet or (where the sinking thereof began before the first day of January, eighteen hundred and eighty-eight) ten feet.
- (2) Where the employment of persons in an area consisting of the whole or any part of a mine below ground would, apart from the following provisions of this subsection be, by virtue of the foregoing subsection, unlawful in consequence of a shaft or outlet having, as a result of an accident or breakdown, become unavailable for affording to persons employed in that area ready means of ingress and egress, but the manager of the mine is satisfied with respect to that area or any part thereof that persons employed in that area or, as the case may be, that part thereof will not for the time being be exposed to undue risk by reason of that shaft or outlet being unavailable as aforesaid, then if he—
  - (a) posts in a conspicuous position at the mine a notice specifying the accident or breakdown and the said area and stating that he is satisfied as aforesaid with respect to that area or, as the case may be, that part thereof and the reason why he is so satisfied; and
  - (b) sends, by the quickest means available, to the inspector for the district and the person, if any, for the time being nominated under the provisions of this Act relating to the notification of accidents to receive on behalf of the persons

employed at the mine notices under the said provisions, a message to the like effect as the notice mentioned in the foregoing paragraph ;

there shall be excepted from the operation of the foregoing subsection-

- (i) the employment in that area or, as the case may be, that part thereof, until the end of his period of work, of any person who was below ground in the mine at the time of the accident or breakdown ;
- (ii) the employment in that area or, as the case may be, that part thereof, until the expiration of the period of twenty-four hours beginning with the time at which the accident or breakdown occurred, of any person in work necessary for securing the safety of the mine or the welfare of animals employed therein or rendering that shaft or outlet again available for the purpose for which it was available immediately before the accident or breakdown:

Provided that nothing in paragraph (i) or (ii) of this subsection shall authorise the employment of any person at any time after the receipt by the manager of the mine of notification from an inspector that, in his opinion, that person should be withdrawn from the area or part of the area in question.

(3) The Minister or an inspector, upon an application in that behalf made to him with respect to a mine, may, by notice served on the manager of the mine, exempt from the operation of subsection (1) of this section the employment of persons below ground in the mine or in such part of the mine below ground as may be specified in the notice:

Provided that no exemption shall be granted under this subsection by the Minister or an inspector unless the Minister or the inspector, as the case may be, is satisfied that no persons employed in the mine will be exposed to undue risk in consequence of the granting of the exemption.

- (4) Regulations made with respect to a particular mine of coal, stratified ironstone, shale or fireclay may provide that the employment below ground in the mine, in accordance with such conditions as may be prescribed, of such number of persons (not exceeding thirty) as may be prescribed, being persons to whom only one shaft or outlet is available for affording to them means of ingress and egress shall be excepted from the operation of subsection (1) of this section.
- (5) In any claim against the owner or manager of a mine for damages, being a claim arising out of an accident caused by a decision of the manager made for the purposes of subsection (2) of this section, the defendant shall, unless he proves that the manager was not negligent in making that decision, be liable in all respects as if the plaintiff had proved that the manager was negligent in making that decision.
- (6) For the purposes of this section a shaft or unwalkable outlet at a mine provided with apparatus for carrying persons through the shaft or outlet shall be deemed not to be available to a person employed below ground in the mine for affording to him means of ingress and egress if that apparatus is not available for use by him.
- (7) In the application of this section to Scotland, for references to a plaintiff and a defendant there shall respectively be substituted references to a pursuer and a defender.
- (8) Nothing in this section shall apply to the employment of persons in a shaft or outlet or in the insets of a shaft or outlet.

#### 23 Communications between shafts and outlets in coal, and c, mines

- (1) So long as, in a mine of coal, stratified ironstone, shale or fireclay, more than one shaft or outlet is available to any persons employed below ground in the mine for affording to them means of ingress and egress, there shall be provided and maintained between—
  - (a) each entrance to each shaft or outlet that is available to those persons for that purpose, being an entrance whereby those persons gain access to the shaft or outlet from the workings ; and
  - (b) some point or points on another shaft or outlet so available ;

a communication following a reasonably short and reasonably convenient route.

(2) The height of every communication provided in pursuance of the foregoing subsection shall be maintained throughout at not less than five feet and the width of every such communication shall be maintained throughout at not less than four feet:

Provided that-

- (a) if the Minister is satisfied that, owing to special circumstances affecting mines of coal, stratified ironstone, shale or fireclay of any class, it is inadvisable for reasons of safety or unnecessary, in the case of the communications provided as aforesaid therein or any class of those communications, for the minimum height or width, or height and width, thereof to be as great as provided by the foregoing provisions of this subsection, regulations may provide that those provisions shall have effect, in their application to those communications or that class thereof, with the substitution, for the minimum specified in the said provisions in relation to height, that so specified in relation to width or both of those minima, as the case may be, of such less minimum or minima as may be prescribed; and
- (b) if an inspector is satisfied that, owing to special circumstances affecting a particular mine of coal, stratified ironstone, shale or fireclay, it is inadvisable for reasons of safety or unnecessary, in the case of all or any of the communications provided as aforesaid therein, for the minimum height or width, or height and width, thereof to be as great as provided by the foregoing provisions of this subsection, he may, by notice served on the manager of the mine, direct that those provisions shall have effect in their application to those communications or to such of them as may be specified in the notice, with the substitution, for the minimum specified in the said provisions in relation to height, that so specified in relation to width or both of those minima, as the case may be, of such less minimum or minima as may be specified in the notice.

# 24 Limitation on number of persons to be employed at coal, and c, mines in places with single exits

- (1) Subject to the provisions of this section, it shall not be lawful for more than nine persons to be employed at any time below ground in a mine of coal, stratified ironstone, shale or fireclay in a place from which there are not two ways each of which—
  - (a) leads to a different shaft or outlet, being a shaft or outlet provided for affording to persons employed at that place means of ingress and egress ;
  - (b) is entirely separate from the other;
  - (c) is traversable with safety and reasonable convenience;

- (d) at each junction thereof with another way has clearly marked on it the shaft or outlet to which it leads ; and
- (e) if it is so prescribed, is of a height or width, or height and width, not less than such as may be prescribed ;

or for more than nine persons in the aggregate to be so employed in two or more such places from none of Which can egress to the surface be had otherwise than by traversing a common junction.

- (2) As respects a particular mine of coal, stratified ironstone, shale or fireclay, provision may be made by regulations or by a notice served by the Minister or an inspector on the manager of the mine—
  - (a) for exempting the mine or any specified place therein from all or any of the requirements of the foregoing subsection;
  - (b) for directing that the foregoing subsection shall, in its application to the mine or to any specified place therein, have effect with the substitution, for references to nine persons, of references to such greater number of persons (not exceeding thirty) as may be specified in the regulations or notice:

Provided that no such provision as aforesaid shall be made with respect to a mine by the Minister or an inspector unless the Minister or the inspector, as the case may be, is satisfied that no persons employed in the mine will be exposed to undue risk or inconvenience in consequence of the making of such provision.

(3) Nothing in this section shall apply to the employment of persons in a shaft or outlet.

## 25 Limitation on number of persons to be employed at coal, and c, mines in shafts and outlets and their insets

(1) It shall not be lawful for a number of persons greater than the permitted number to be employed at any time at a mine of coal, stratified ironstone, shale or fireclay in a shaft or outlet:

Provided that, in relation to an outlet toot being an unwalkable outlet), this subsection shall not apply to any part thereof lying between the surface entrance thereto and any point therein from which a communication leads to another outlet or to a shaft, being an outlet or shaft available to persons employed in the said part for affording to them means of ingress and egress.

(2) For the purposes of this section—

- (a) the permitted number, in relation to a shaft or outlet, shall be twenty or such greater number (not exceeding thirty) as may be determined by an inspector by notice served on the manager of the mine ;
- (b) the insets of a shaft or outlet shall be deemed to form part of the shaft or outlet; and
- (c) subsection (6) of section twenty-two of this Act shall apply as it applies for the purposes of that section.
- (3) Nothing in this section shall be construed as prejudicing the operation of the last foregoing section in relation to the employment of persons in individual insets of a shaft or outlet.

#### 26 Power to apply foregoing provisions of Part III to other mines

Regulations may provide that the foregoing provisions of this Part of this Act shall (subject to such exceptions, adaptations and modifications, if any, as may be prescribed) apply to mines other than of coal, stratified ironstone, shale or fireclay.

# 27 Power of inspector to require provision of additional ways out from working faces in coal mines

- (1) If an inspector is of opinion, with respect to a working face in a mine of coal, that in the interests of safety it is necessary or expedient to provide thereat a greater number of ways out therefrom, he may serve on the manager of the mine a notice specifying that face and stating that he is of opinion as aforesaid with respect thereto and directing that, after the expiration of such period beginning with the day on Which the notice becomes operative as may be specified therein, the face shall not be worked unless there are provided thereat such additional roads affording means of egress therefrom as may be specified in the notice, being roads leading to such places as may be so specified.
- (2) The provisions of Part XV of this Act with respect to references upon notices served by inspectors shall apply to a notice served under the foregoing subsection.

## 28 Provision of winding and haulage apparatus

- (1) Every shaft and unwalkable outlet for the time being provided at a mine of coal, stratified ironstone, shale or fireclay for affording to persons employed below ground therein means of ingress and egress shall be provided with apparatus for carrying persons between the top of the shaft and the entrances therefrom to the workings and between those entrances themselves or, as the case may be, for carrying persons between the surface entrance to the outlet and the entrances therefrom to the workings and between those entrances themselves, being apparatus which complies with such requirements (if any) of regulations as it appears to the Minister requisite or expedient to impose for securing the safety of persons when being carried by means thereof and whose use is confined to the shaft or outlet, save where an inspector in any particular case, by notice served on the manager of the mine, consents to its use not being so confined.
- (2) Every shaft and unwalkable outlet for the time being provided at a mine other than of coal, stratified ironstone, shale or fireclay for affording to persons employed below ground therein means of ingress and egress, being a shaft or outlet in the case of which the relevant distance exceeds one hundred and fifty feet, shall be provided with apparatus for carrying persons between the top of the shaft and the entrances therefrom to the workings and between those entrances themselves or, as the case may be, for carrying persons between the surface entrance to the outlet and the entrances therefrom to the workings and between those entrances themselves, being apparatus which complies with such requirements (if any) of regulations as it appears to the Minister requisite or expedient to impose for securing the safety of persons when toeing carried by means thereof, and whose use is confined to the shaft or outlet, save where an inspector in any particular case, by notice served on the manager of the mine, consents to its use not being so confined:

Provided that an inspector may by notice served on the manager of any such mine as is mentioned in the foregoing provisions of this subsection exempt from those provisions a shaft or outlet provided at that mine.

For the purposes of this subsection the expression " relevant distance " means, in the case of a shaft, the distance between the top of the shaft and the bottom of the lowest entrance to the shaft provided for affording to persons access to the shaft and, in the case of an outlet, the distance between the point at which the outlet reaches the surface and the underground entrance provided for affording to persons access to the outlet which is furthest from that point.

(3) All apparatus provided in pursuance of this section shall be properly maintained and, when not in use, kept constantly available for use.

# 29 Power to require provision of machinery, and c, for use in case of failure of winding or haulage apparatus

Regulations may impose upon owners of mines such requirements with respect to the provision and maintenance of the prescribed machinery, apparatus and parts of machinery or apparatus for the purpose of their being available for use in the event of apparatus provided at mines for carrying persons employed thereat through shafts or outlets thereat failing to function as it may appear to the Minister requisite or expedient to impose for the purpose of securing the safety of such persons.

Safety Precautions in connection with Shafts, &c, and Entrances to disused Workings

#### **30** Securing of shafts and staple-pits

(1) Every mine shaft and staple-pit shall, save in so far as the natural conditions of the strata through which it passes render it unnecessary (either as to the whole or as to any part thereof) so to make it, be made secure, and shall be kept secure:

Provided that in any prosecution for a contravention of this subsection with respect to a shaft or staple-pit, it shall be a defence to prove that at the time of the alleged contravention no insecure part of that shaft or staple-pit was in use or was the site of any operations in progress by way of driving or extending the shaft or staple-pit.

(2) Subsection (1) of this section shall apply to unwalkable outlets at a mine as it applies to mine shafts.

#### 31 Safety precautions with respect to entrances to shafts, staple-pits and outlets

- (1) The surface entrance to every mine shaft and every other entrance thereto (whether above or below ground), and every entrance to every staple-pit, shall be provided with an efficient enclosure or barrier so designed and constructed as to prevent any person from accidentally falling down the shaft or staple-pit or accidentally coming into contact with a moving part of any winding apparatus with which the shaft or staple-pit is provided.
- (2) Every enclosure or barrier provided in pursuance of the foregoing subsection shall be properly maintained and, where an enclosure or barrier so provided or any part thereof is removable or openable, the enclosure, barrier or part shall be kept securely in position or, as the case may be, securely closed save in so far as its removal or opening is necessary for the purpose of the use of the shaft or staple-pit in connection with which it is provided, the doing of work in the shaft or staple-pit or the inspection of, or of anything in, the shaft or staple-pit.

- (3) Provision may be made by regulations for requiring such steps as may be prescribed to be taken for the purpose of preventing persons from accidentally entering outlets at mines or from accidentally coming into contact with moving parts of any apparatus therein.
- (4) For the purposes of this section so much of any superstructure provided at the top of a shaft as forms an extension thereof shall be deemed to form part of the shaft.
- (5) This section shall not apply to a shaft or outlet of, or staple-pit in, an abandoned mine or a mine which has not been worked for a period of twelve months, but, save as aforesaid, shall apply as well to shafts, outlets and staple-pits which are not in use as to shafts, outlets and staple-pits which are in use.

### **32** Prevention of fall of articles down shafts and staple-pits

- (1) Provision may be made by regulations for requiring such steps as may be prescribed to be taken at mines for the purpose of preventing persons from being injured by the accidental fall of articles down shafts or staple-pits thereat.
- (2) Subsection (4) of the last foregoing section shall apply for the purposes of this section as it applies for the purposes of that section.

#### 33 Safety precautions with respect to entrances to unfit parts of mines

- (1) Every entrance from a road in a mine to a part of the mine which for the time being is not maintained in a state fit for persons to work in or pass through shall be provided with an efficient enclosure or barrier so designed and constructed as to prevent any person from accidentally entering that part of the mine.
- (2) Every enclosure or barrier provided in a mine in pursuance of the foregoing subsection shall be properly maintained and, where an enclosure or barrier so provided or any part thereof is removable or openable, the enclosure, barrier or part shall be kept securely in position or, as the case may be, securely closed save in so far as its removal or opening is authorised by the manager of the mine, an under-manager thereof or the person for the time being in charge of the part of the mine in which it is provided.

#### Roads

#### **34** General provisions with respect to construction and maintenance of roads

- (1) It shall be the duty of the manager of every mine to take, with respect to every length of road therein, being a length in which vehicles or conveyors run or which is used, at the beginning or end of a shift by not less than ten persons for the purpose of walking to or from their working places in the mine, such steps as may be necessary to secure that the following provisions are complied with, namely,—
  - (a) every such length of road made after the commencement of this Act shall be so made and maintained as to avoid sudden changes of direction, height, width and gradient save in so far as either—
    - (i) the system of working the mine or the natural conditions of the strata therein render it inadvisable for reasons of safety to do so ; or
    - (ii) it is unnecessary to do so;

- (b) every such length of road (whether made before or after the commencement of this Act) shall be kept free from obstructions and the floor thereof shall be kept in good repair and in such a condition that any persons or animals who use that length of road can tread it with safety and reasonable convenience.
- (2) If, with respect to any such length of road as aforesaid in a mine (being a length made before the commencement of this Act) an inspector is of opinion that any sudden change therein of direction, height, width or gradient ought to be eliminated, he may serve on the manager of the mine a notice specifying that length of road and any such sudden change as aforesaid which he thinks ought to be eliminated and requiring the manager to execute, before the expiration of such period beginning with the date on which the notice becomes operative as may be specified therein, such works to that length of road as will eliminate that sudden change.

The provisions of Part XV of this Act with respect to references upon notices served by inspectors shall apply to a notice served under this subsection.

(3) References in this section to changes of gradient shall be construed as including references to deviations (whether upwards or downwards) from the horizontal.

### 35 Height and width of travelling roads

(1) Every length of road in a mine which is used at the beginning or end of a shift by not less than ten persons for the purpose of walking to or from their working places in the mine, being a length made after the commencement of this Act, shall be not less than five feet six inches high throughout:

Provided that-

- (a) provision may be made by regulations for exempting from the foregoing provisions of this subsection any such lengths of road as aforesaid of a prescribed class in mines to which the regulations apply, or any prescribed parts of any such lengths of road in such mines or of any such lengths of road of a prescribed class in such mines ; and
- (b) an inspector may, by notice served on the manager of a particular mine, exempt from those provisions any such length of road as aforesaid in that mine or any part of any such length of road.
- (2) If, with respect to a length of road in a mine which is used as mentioned in subsection (1) of this section, being a length made before the commencement of this Act which is not throughout of a height of at least five feet six inches, an inspector is of opinion that it is inexpedient that it should continue to be so used unless it is heightened, he may serve on the manager of the mine a notice specifying that length of road and the height (not being more than five feet six inches) to which, in his opinion, it ought to be increased if it is to continue to be so used (hereinafter referred to as " the specified height"), and directing that, after the expiration of such period beginning with the day on which the notice becomes operative as may be specified therein, every part of that length of road which is so used shall be throughout (except at such places, if any, therein as may be specified in the notice) of a height not less than the specified height.
- (3) If, with respect to a length of road in a mine (whether made in whole or in part either before or after the commencement of this Act), being a length which is used as mentioned in subsection (1) of this section, an inspector is of opinion that it is inexpedient that it should continue to be so used unless it is widened, he may serve on

the manager of the mine a notice specifying that length of road and the width to which, in his opinion, it ought to be increased if it is to continue to be so used (hereinafter referred to as " the specified width ") and directing that, after the expiration of such period beginning with the day on which the notice becomes operative as may be specified therein, every part of that length of road which is so used shall be throughout (except at such places, if any, therein as may be specified in the notice) of a width not less than the specified width.

(4) The provisions of Part XV of this Act with respect to references upon notices served by inspectors shall apply to a notice served under either of the two last foregoing subsections.

## 36 Prohibition of use of vehicles and conveyors in roads not affording free movement

- (1) The manager of a mine—
  - (a) shall not permit vehicles to run in any road therein unless neither the vehicles nor their loads, nor (if the vehicles run as part of rope haulage apparatus) the ropes to which they are attached, nor (if the vehicles are hauled by animals) the animals nor their harnesses rub against the roof or sides of the road, anything supporting the roof and sides of the road or either of them or anything in the road not provided for the purpose of controlling the vehicles or (in the case of vehicles which run as part of rope haulage apparatus) the ropes to which they are attached;
  - (b) shall not permit a conveyor to be operated in any road therein unless neither the conveyor nor its load rubs against the roof or sides of the road, anything supporting the roof and sides of the road or either of them or anything in the road.
- (2) In any prosecution for a contravention of this section with respect to the running of vehicles or the operation of a conveyor in a road in a mine on any occasion, it shall be a defence to prove either—
  - (a) that the sole purpose for which the vehicles were being run or the conveyor was being operated on that occasion was to facilitate the carrying out to the road of repairs the purpose of the carrying out whereof was to enable the manager of the mine, without contravention of this section, to permit vehicles to run or a conveyor to be operated in that road ; or
  - (b) that—
    - (i) the fact that rubbing occurred on that occasion was due to a sudden decrease of the height or width of the road which it was impracticable to prevent; and
    - (ii) there was no reasonable ground for apprehending that the running of the vehicles or the operation of the conveyor, as the case may be, on that occasion would result in bodily injury to persons or animals using the road; and
    - (iii) no avoidable delay was incurred in taking the steps necessary to complete the carrying out to the road, at the place where rubbing occurred, of such repairs as aforesaid.

### **37** Transport rules

- (1) The manager of every mine shall have power to make rules (hereafter in this Act referred to as " transport rules ") with respect to the use of vehicles and conveyors in the mine and the conditions under which they may be so used and generally for securing the safe operation in the mine of vehicles and conveyors and the avoidance of bodily injury being caused to persons by reason of the running thereof, and in particular, but without prejudice to the generality of the foregoing words,—
  - (a) specifying a standard height and width with respect to each length of road in the mine in which vehicles run or conveyors are operated ;
  - (b) specifying the maximum loads (by reference to weight, dimensions, number or other criterion) that may be carried in vehicles in any length of road in the mine and the maximum number of vehicles (according as to whether they are loaded or unloaded) that may be coupled together to run as a set or train in any length of road in the mine ;
  - (c) specifying the maximum speeds at which vehicles may run in any length of road in the mine ; and
  - (d) prohibiting the conveyance in roads in the mine of persons in vehicles or on conveyors except in such circumstances and in accordance with such conditions, if any, as may be specified in the rules and specifying precautions to be observed when persons are so conveyed.
- (2) The exercise by the manager of a mine of the power conferred by the foregoing subsection shall be obligatory for the purpose mentioned in paragraph (a) of that subsection and also for the purposes mentioned in paragraphs (b) to (d) thereof save in so far as an exercise of that power for those purposes could, having regard to the circumstances of the mine, serve no object, and regulations may render an exercise of that power obligatory for any other purpose for which it may be exercised.
- (3) The power conferred by subsection (1) of this section to specify by transport rules standard heights and widths with respect to lengths of road may, as respects any particular length of road, be so exercised as either to specify a standard height and width to be applicable without exception throughout that length of road or to specify a standard height and width to be applicable throughout that length of road but subject to exceptions (as regards height or width, or both) for such places therein as may be specified in the rules.
- (4) Transport rules having effect with respect to a mine may impose duties and prohibitions on persons employed thereat and may make different provision with respect to different roads or classes of roads, different lengths of road or lengths of road of different classes and different classes of vehicles, conveyors and loads.
- (5) It shall be the duty of the manager of every mine-
  - (a) so to frame such of the provisions of transport rules as have effect by virtue of paragraph (a) of subsection (1) of this section as to secure that, as regards any length of road in the mine to which the provisions relate, the specified standard width is not less than such as is sufficient to permit of the provision of such amount of space as may be calculated to secure the safety of persons who work in or pass through that length of road while vehicles are running or conveyors are being operated therein ; and
  - (b) so to frame such of the provisions of transport rules as have effect by virtue of paragraph (b) or (c) of that subsection as to secure that each maximum thereby specified is such as will, in his opinion, afford a reasonable margin of safety.

(6) It shall be the duty of the manager of every mine—

- (a) to take, with respect to every length of road therein with respect to which a standard height and width is specified by provisions of transport rules having effect by virtue of paragraph (a) of subsection (1) of this section, such steps as are appropriate for securing that the height and width of that length of road throughout are at all times not less than the standard height and width so specified, save, so far as regards any such place therein as is specified in the rules by virtue of subsection (3) of this section, in so far as that height and width are, or either of them is, by virtue of that subsection, inapplicable;
- (b) to secure that all other provisions of transport rules relating to the mine are executed and enforced.
- (7) A transport rule which is inconsistent with the provisions of any regulation shall, to the extent of the inconsistency, be of no effect.
- (8) If an inspector is of opinion with respect to a mine that provision ought to be made by transport rules having effect with respect to the mine for any matter for which provision is not for the time being made by such rules or that different provision ought to be made by such rules for any matter for which provision is for the time being made by such rules, he may serve on the manager of the mine a notice stating that he is of that opinion, specifying the matter for which, in his opinion, provision or, as the case may be, different provision ought to be made as aforesaid and the nature of the provision that, in his opinion, ought to be made, and requiring the manager, before the expiration of such period beginning with the day on which the notice becomes operative as may be specified therein, to exercise the power conferred on him by subsection (1) of this section in accordance with the tenor of the notice.

The provisions of Part XV of this Act with respect to references upon notices served by inspectors shall apply to a notice served under this subsection.

- (9) A copy of all transport rules for the time being in force with respect to a mine shall be kept at the office at the mine or at such other place as may be approved by an inspector, and notices containing a summary of so much of any such rules as affect any person shall be kept posted at suitable places in the mine in such characters and in such positions as to be easily seen and read by him.
- (10) A document purporting to be certified by the manager of a mine to be a true copy of any transport rules for the time being in force with respect to the mine shall be receivable in evidence and shall, unless the contrary is proved, be deemed to be such a copy.

### **38** Power to require provision of travelling facilities

Regulations may require the provision, in such cases as may be prescribed, of facilities whereby persons employed below ground in mines may be carried through the roads whereby they go to and from their working places or through parts of those roads, being cases where the provision of such facilities as aforesaid appears to the Minister to be necessary or expedient in the interests of safety or for the purpose of avoiding excessive fatigue being caused to such persons in going to and from those places.

#### **39** Provisions for securing safety of foot-passengers in transport roads

- (1) The following provisions shall have effect with respect to every length of road in a mine, being a length in which run vehicles moved otherwise than by hand or by animal traction (whether or not vehicles moved by those means also run therein):—
  - (a) during any period during which vehicles are moving in that length of road otherwise than by those means, no person employed at the mine (other than an authorised person) shall, except in accordance with the provisions of regulations in that behalf, pass on foot along that length of road or any part thereof unless the movement of vehicles in that length of road, other than vehicles moved by those means, is specially stopped for the purpose of allowing him to do so;
  - (b) if that length of road is used at the beginning or end, or at the beginning and end, of a shift by not less than ten persons for the purpose of walking to or from their working places in the mine, it shall be the duty of the manager of the mine to fix a period or periods for the purpose of enabling them to do so in safety, and no person shall cause or permit a vehicle (whether loaded or not) to move, otherwise than by those means, in that length of road during a period fixed in pursuance of the foregoing provisions of this paragraph:

Provided that-

- (i) provision may be made by regulations for exempting from the provisions of either or both of the foregoing paragraphs any such lengths of road as aforesaid of a prescribed class in mines to which the regulations apply, and an inspector may, by notice served on the manager of a particular mine, exempt from the provisions of either or both of those paragraphs any such length of road as aforesaid in that mine ; and
- (ii) in any prosecution instituted in respect of a person's passing along a length of road or part thereof in contravention of paragraph (a) of this subsection, it shall be a defence to prove that that person had reasonable cause to believe that it might be necessary for repairs to be carried out forthwith in that length of road and was so passing for the purpose of verifying his belief and of ascertaining the nature or extent of the repairs which he believed it might be necessary to carry out.
- (2) Except with the written permission of the manager of a mine, no person shall, otherwise than in such circumstances and in accordance with such conditions (if any) as may be specified in transport rules having effect with respect to the mine, accompany on foot below ground in the mine a vehicle which is moving as part of any rope haulage apparatus.
- (3) For the purposes of paragraph (a) of subsection (1) of this section the expression " authorised person" means, in relation to a length of road in a mine,—
  - (a) an official of the mine;
  - (b) a person employed in connection with the running of vehicles in that length of road;
  - (c) a person engaged in, or in connection with, the carrying out in that length of road of repairs which it is necessary to carry out forthwith ; or
  - (d) a person engaged in carrying out, by virtue of the provisions of this Act relating to workmen's inspections or of any such agreement as is mentioned in those provisions, an inspection at the mine.

#### 40 **Provision of refuge holes**

- (1) Subject to any exceptions for which provision may be made by regulations, the manager of a mine shall not permit vehicles (not being vehicles moved by hand) to run in any length of road in the mine unless there are provided in that length of road (except in so much, if any, of it as is within seventy-five feet of a working face served by it), at intervals not greater than such as may be prescribed and in the prescribed and complies with such other requirements as may be prescribed.
- (2) Every refuge hole for the time being provided in a length of road in a mine for the purpose of enabling the manager of the mine, without contravention of the foregoing subsection, to permit vehicles to run in that length of road shall be kept free from obstruction.
- (3) In this section the expression " working face " does not include a place in a road at which ripping or work of repair is in progress.

#### 41 Safety measures relating to use of vehicles

- (1) So long as vehicles are used in a mine, there shall be provided, maintained and used, either in the mine or on the vehicles or both in the mine and on the vehicles, such safety devices as are necessary to prevent the occurrence of accidents likely to cause bodily injury to persons, being accidents caused by vehicles so used running away; and every device provided in pursuance of this subsection shall be of a kind designed to assume automatically the position in which it operates for the purpose for which it is designed, save in a case where there is good reason for not providing a device of that kind.
- (2) In addition to the provision, in pursuance of the foregoing subsection, of such safety devices as are therein mentioned, there shall be taken, as respects a person who, otherwise than as a matter of routine, is at work at a place in a mine through which vehicles are running or are accustomed to run, such steps as are necessary to protect him from bodily injury in the event of a vehicle's running away while he is at work at that place.

Provisions for securing safe operation of Winding and Rope Haulage Apparatus and Conveyors

#### 42 Charge of winding and rope haulage apparatus when persons are carried

- (1) No mechanically or gravity operated winding apparatus with which a mine shaft or staple-pit is provided and no mechanically or gravity operated rope haulage apparatus at a mine shall be operated on any occasion when persons are carried by means thereof except by a competent male person who has attained the age of twenty-two years appointed by the manager of the mine to operate it on such an occasion ; and accordingly it shall be the duty of the manager of every mine to appoint such number (if any) of competent male persons as may be sufficient to secure compliance with the foregoing provisions of this subsection.
- (2) It shall be the duty of the manager of every mine to and from which persons gain ingress and egress by being carried through a shaft or unwalkable outlet by means of mechanically or gravity operated winding or rope haulage apparatus, or in which persons gain access to a part thereof by being carried through a staple-pit by means of mechanically or gravity operated winding apparatus, to make, and to secure the

efficient carrying out of, arrangements whereby, so long as any person is below ground in the mine who it is intended should come out through that shaft, outlet or staple-pit, a person appointed under this section is in attendance at the mine for the purpose of operating the apparatus aforesaid provided for carrying persons through that shaft or outlet or, as the case may be, that staple-pit.

- (3) An inspector may serve on the manager of a mine a notice requiring him to secure that, at such times as may be specified in the notice, a person who, in pursuance of arrangements made under the last foregoing subsection, is in attendance at the mine is not charged with the duty of operating more than one set of mechanically or gravity operated winding or rope haulage apparatus.
- (4) Subject to any exceptions for which provision may be made by regulations, no person appointed under this section shall be employed at a mine of coal, stratified ironstone, shale or fireclay for more than eight hours in any day on which his duties consist of, or include, the operation, when persons are carried by means thereof, of mechanically or gravity operated winding apparatus with which a shaft is provided, and regulations may provide for limiting the number of hours for which any such person may be employed in any week in which his duties consist of, or include, the operation as aforesaid of such apparatus.

## 43 Charge of winding and rope haulage apparatus when persons are not carried

- (1) No mechanically or gravity operated winding apparatus with which a mine shaft or staple-pit is provided shall be operated on an occasion when no persons are carried by means thereof except by, or under the constant supervision of, a competent male person who has attained the age of twenty-one years.
- (2) No mechanically or gravity operated rope haulage apparatus at a mine shall be operated on any such occasion as aforesaid except by, or under the constant supervision of, a competent male person who has attained the age of eighteen years.

### 44 Charge of conveyors at working faces

No conveyor shall be operated along a working face in a mine except by, or under the constant supervision of, a competent male person who has attained the age of eighteen years.

#### 45 Signalling in shafts and outlets

(1) There shall be provided and maintained—

- (a) in connection with every mine shaft provided with winding apparatus, being a shaft in the case of which the distance between the highest and lowest entrances thereto for the time being in use exceeds fifty feet, effective means of transmitting audible and visible signals from each entrance to the shaft for the time being in use to the place at which the winding apparatus is operated;
- (b) in connection with every unwalkable outlet at a mine, being an outlet which is provided with rope haulage apparatus and in the case of which the distance between the terminal surface entrance thereto and the terminal underground entrance thereto exceeds fifty feet, effective means of transmitting audible and visible signals from each entrance to the outlet for the time being in use to the place at which the haulage apparatus is operated;

and provision may be made by regulations for requiring the provision and maintenance, in connection with mine shafts and unwalkable outlets at mines, of means of transmitting signals between the entrances thereto.

(2) Provision may be made by regulations—

- (a) for requiring that the prescribed signals shall not be transmitted by means, provided in pursuance of, or of regulations having effect by virtue of, the foregoing subsection otherwise than in the prescribed code;
- (b) for requiring the manager of a mine to secure the attendance thereat, at such times as may be prescribed, of persons for the purpose of transmitting signals by those means and receiving signals transmitted thereby.

(3) For the purposes of this section—

- (a) so much of any superstructure provided at the top of a mine shaft as forms an extension thereof shall be deemed to form part of the shaft, and so much of a line of rails running through an outlet as lies between the point at which the outlet reaches the surface and the surface terminus of the line shall be deemed to form part of the outlet;
- (b) the expression " entrance ", in relation to an outlet, includes any place at which vehicles stop for the purpose of loading or unloading; and
- (c) the expressions " terminal surface entrance " and " terminal underground entrance ", in relation to an outlet, mean, respectively', the surface entrance thereto or, if there is more than one, that one for the time being in use which is furthest from the point at which the outlet reaches the surface and the underground entrance thereto for the time being in use which is furthest from that point.

## 46 Signalling in roads

Where rope haulage apparatus or a conveyor is installed in a road in a mine or is so installed at a mine as to permit of Its operation in a road therein, then, if the length of the part of that road through which vehicles can move as part of that apparatus or, as the case may be, through which loads can be carried by means of that conveyor, exceeds ninety feet, there shall be provided and maintained effective means of transmitting signals from every point throughout that part of that road, to' the place at which the apparatus or, as the case may be, the conveyor is operated.

# 47 Power to exclude or modify five preceding sections in case of remotely controlled or automatic apparatus

Regulations may provide for excluding or modifying the application of all or any of the provisions of the five last foregoing sections in the case of winding or rope haulage apparatus installed at mines or conveyors so installed, being apparatus or conveyors whose operation is remotely controlled or wholly or partly automatic.

#### Support

### 48 Duty to secure safety of roads and working places

(1) It shall be the duty of the manager of every mine to take, with respect to every road and working place in the mine, such steps by way of controlling movement of the strata

in the mine and supporting the roof and sides of the road or working place as may be necessary for keeping the road or working place secure:

Provided that nothing in this subsection shall require the taking of such steps as aforesaid with respect to a road or part of a road which is, or is comprised in, a part of the mine every entrance to which is for the time being provided, in pursuance of section thirty4hree of this Act, with such an enclosure or barrier as is therein mentioned.

(2) It shall be the duty of the manager of every mine to take such steps as may be necessary for securing that he is at all material times in possession of all information relevant for determining the nature and extent of any steps which it is requisite for him to take in order to discharge efficiently the duty imposed on him by the foregoing subsection.

#### 49 Systematic support in coal, shale and fireclay mines

- (1) Subject to the provisions of this section, in every mine of coal, shale or fireclay there shall be provided and maintained systematic support for the roof and sides of—
  - (a) every place where any mineral is worked;
  - (b) every roadhead;
  - (c) every junction of two or more lengths of road through any one of which vehicles or a conveyor run or runs; and
  - (d) every length of road in which persons work otherwise than occasionally or for short periods.
- (2) If an inspector is of opinion with respect to a length of road in a mine of coal, shale or fireclay toot being such a length as is mentioned in paragraph (d) of the foregoing subsection) that systematic support for the roof and sides (or either of them) of that length of road ought to be provided and maintained, he may serve on the manager of the mine a notice specifying the length of road, stating that he is of opinion aforesaid with respect thereto and requiring the provision before the expiration of such period beginning with the day on which the notice becomes operative as may be specified therein, and the maintenance after the provision thereof, of systematic support for the roof and sides of that length of road or either of them, according as may be specified in the notice.

The provisions of Part XV of this Act with respect to references upon notices served by inspectors shall apply to a notice served under this subsection.

- (3) Regulations may require or empower inspectors to require the provision and maintenance in mines of coal, shale or fireclay of systematic support for roofs or sides, or both, in such cases (not being cases falling within subsection (1) of this section) and to such extent as may be prescribed.
- (4) Regulations may provide for exempting from the foregoing provisions of this section any prescribed class of mines of coal, shale or fireclay or any prescribed classes of places where mineral is worked, roadheads, junctions or lengths of road in such mines or any class thereof, and an inspector may, by notice served on the manager of a particular mine of coal, shale or fireclay, exempt from those provisions that mine or any such place as aforesaid, roadhead, junction or length of road therein.
- (5) For the purposes of this section references to provision and maintenance of systematic support shall, as respects any mine, be construed as references to provision and maintenance of support in accordance with a system specified in rules to be made

by the manager of the mine, being a system consistent with the proper control of movement of the strata in the mine.

(6) Nothing in this section shall be construed as preventing a workman in a mine of coal, shale or fireclay from setting in his working place, in addition to supports set therein in pursuance of a requirement imposed by or by virtue of this section, any support which he has reason to believe it is necessary to set therein for the purpose of securing the safety of himself or another.

#### 50 Power to require systematic support in other mines

- (1) Regulations may require, or empower inspectors to require, the provision and maintenance in mines other than of coal, shale or fireclay of systematic support for roofs or sides, or both, in such cases and to such extent as may be prescribed.
- (2) The reference in this section to provision and maintenance of systematic support shall be construed in like manner as the references thereto in the last foregoing section are required to be construed.

### 51 Supply of materials for support

- (1) Subject to any exceptions for which provision may be made by regulations, no materials shall be used for the support of the roof or sides of any place in a mine other than materials provided by the owner of the mine.
- (2) No charge shall be levied by the owner of a mine upon any person employed thereat in respect of the provision by the owner of materials for support.
- (3) It shall be the duty of the manager of every mine to secure that a sufficient supply of suitable materials for support is at all times readily available, for use at the place where he is actually working, to each workman who needs them, and—
  - (a) where a sufficient supply of such materials is not readily available, for use at the place where he is actually working, to a workman who needs them, he shall withdraw to a place of safety and forthwith report to an official of the mine that, by reason of the premises, he has done so; and
  - (b) where it appears to the person for the time being in -charge of a part of a mine that such a supply is not available as aforesaid to a workman employed in that part of the mine, the said person shall cause the workman to withdraw as aforesaid ;

and where, on any occasion, a workman has, in pursuance of either of the foregoing paragraphs, withdrawn from the place where he was actually working, the person for the time being in charge of the part of the mine in which that place is situate shall not permit the workman to return to it thereafter until that person is satisfied that such a supply of materials as aforesaid will be readily available, for use at that place, to that workman when he needs them.

#### 52 Withdrawal of support

- (1) No person shall withdraw support from the roof or sides of any place in a mine otherwise than by a method or device by which he does so from a position of safety.
- (2) Where it is part of the system of work at a place in a mine to withdraw from the waste or from under the roof adjoining the waste support provided in compliance with a

requirement to provide it imposed by or by virtue of section forty-nine or fifty of this Act, no person shall, at that place, otherwise than in accordance with a system specified in rules to be made by the manager of the mine, withdraw as aforesaid support so provided.

#### 53 Duties of deputies in relation to support

It shall be the duty of every person employed at a mine who is appointed for the purpose of fulfilling any requirements imposed with respect to the mine by virtue of paragraph (a) of subsection (1) of section twelve of this Act to ensure to the best of his ability that all such rules made under or by virtue of any of the foregoing provisions of this Act relating to support as have effect with respect to the mine are executed and enforced and that there are duly set any supports which appear to him to be necessary in addition to those set in pursuance of the requirements imposed by or by virtue of the said provisions.

### 54 **Provisions as to support rules**

- (1) Rules made under or by virtue of any of the foregoing provisions of this Act relating to support are hereafter in this Act referred to as " support rules ".
- (2) Support rules with respect to a mine shall comply with such requirements with respect to the form thereof and the matters to be specified therein as may be prescribed, and may impose upon persons employed at the mine such duties and prohibitions as it appears to the manager of the mine requisite or expedient to impose on them for securing compliance with any requirement imposed by or by virtue of the foregoing provisions of this Part of this Act relating to support.
- (3) If, with respect to any support rules for the time being in force with respect to a mine, an inspector is of opinion that the rules require modification in any particular, he may serve on the manager of the mine a notice specifying the rules, stating that he is of opinion aforesaid and specifying the particular in which, in his opinion, the rules require modification and the nature of the modification that, in his opinion, ought to be made, and requiring the manager, before the expiration of such period beginning with the date on which the notice becomes operative as may be specified therein, to modify the rules in accordance with the tenor of the, notice.

The provisions of Part XV of this Act with respect to references upon notices served by inspectors shall apply to a notice served under this subsection.

- (4) A support rule which is inconsistent with the provisions of any regulation shall, to the extent of the inconsistency, be of no effect.
- (5) A copy of all support rules for the time being in force with respect to a mine shall be kept at the office at the mine or at such other place as may be approved by an inspector and where, by virtue of paragraph (d) of subsection (1) of section twelve of this Act, districts are delimited in a mine for the purpose of the discharge of their duties by persons appointed for the purpose of fulfilling the requirements imposed with respect to the mine by virtue of paragraph (a) of that subsection, a copy of so much of the said rules as relates to each district shall be supplied by the manager of the mine to the person so appointed who is in charge of the district and shall be kept posted at the entrance to the district in such characters and in such a position as to be easily seen and read by the persons employed in the district.

- (6) It shall be the duty of the manager of every mine with respect to which support rules are for the time being in force to supply to every person employed at the mine whose duties consist of, or include, the setting of supports in accordance with a system specified in the rules, a document explaining either verbally or diagrammatically, or partly in the one way and partly in the other, the effect of the rules so far as they concern him.
- (7) A document purporting to be certified by the manager of a mine to be a true copy of any support rules for the time being in force with respect to the mine shall be receivable in evidence and shall, unless the contrary is proved, be deemed to be such a copy.

#### Ventilation

#### 55 Duty to provide adequate ventilation

- (1) It shall be the duty of the manager of every mine to take such steps as are necessary for securing that there is constantly produced in all parts of the mine below ground ventilation adequate for the following purposes, namely,—
  - (a) diluting gases that are inflammable or noxious so as to render them harmless and removing them ; and
  - (b) providing air containing a sufficiency of oxygen.
- (2) Without prejudice to the general application of the foregoing subsection,-
  - (a) ventilation produced in a part of a mine shall be deemed for the purposes of that subsection not to be adequate for the purpose of diluting carbon dioxide so as to render it harmless unless the amount thereof in the general body of the air in that part of the mine is not more than one and a quarter per cent. by volume or, if a smaller percentage by volume is prescribed, that smaller percentage;
  - (b) ventilation produced in a part of a mine shall be deemed for the purposes of that subsection not to be adequate for the purpose of providing air containing a sufficiency of oxygen unless the amount of oxygen in the general body of the air in that part of the mine is not less than nineteen per cent. by volume ;

and regulations may provide that, without prejudice to the general application of that subsection, ventilation produced in a part of a mine shall be deemed for the purposes of that subsection not to be adequate for the purpose of diluting a prescribed gas (other than carbon dioxide) that is inflammable or noxious so as to render it harmless unless the amount thereof in the general body of the air in that part of the mine is less than the prescribed percentage by volume.

- (3) In the discharge of the duty imposed on him by subsection (1) of this section, the manager of a mine shall have regard to the desirability of securing (consistently with the discharge of that duty) the maintenance in the mine of working conditions that are reasonable so far as regards the temperature and humidity of the atmosphere and the amount of dust therein.
- (4) Nothing in subsection (1) of this section shall be construed as requiring the production of ventilation—
  - (a) in a part of a mine which is stopped off in a prescribed manner or in such other manner as may be approved by an inspector by notice served on the manager of the mine or is stowed up;
  - (b) in any waste; or

- (c) in any such other part of a mine as may be prescribed.
- (5) Where, in any part of a mine required by the foregoing provisions of this section to be ventilated, the ventilation is interrupted or ceases to be adequate for the purposes mentioned in subsection (1) of this section, it shall be the duty of the manager of the mine to secure that, until the ventilation is restored, access to that part of the mine is so restricted as to prevent from entering it any person not authorised to do so and no person is permitted to remain in or pass through it except for the purpose of restoring the ventilation or in a case of emergency.

## 56 Avoidance of danger from gas in waste

- (1) This section applies to waste other than—
  - (a) waste which is—
    - (i) stopped off in a prescribed manner or in such other manner as may be approved by an inspector by notice served on the manager of the mine in which it is contained; or
    - (ii) stowed up ; or
  - (b) waste, other than as aforesaid, with respect to which it is known that there is therein—
    - (i) no inflammable gas ; and
    - (ii) either no noxious gas or no noxious gas in a dangerous concentration.
- (2) It shall be the duty of the manager of every mine which contains any waste to which this section applies to secure either—
  - (a) that there is constantly produced in that waste ventilation adequate for the purposes mentioned in subsection (1) of the last foregoing section ; or
  - (b) that appropriate steps are taken for the purpose of minimising dangerous emissions from that waste of inflammable or noxious gas.
- (3) Subsection (2) of the last foregoing section shall, with any requisite modifications, apply for the purposes of paragraph (a) of the last foregoing subsection as it applies for the purposes of subsection (1) of that section.

### 57 Power of inspector to require improvement of ventilation

- (1) If an inspector is of opinion, with respect to a part of a mine that is by section fiftyfive of this Act required to be ventilated, that, in the interests of the safety or health of the persons employed in that part of the mine, it is necessary or expedient to improve the ventilation produced therein, he may serve on the manager of the mine a notice specifying that part and stating that he is of opinion aforesaid with respect thereto and requiring (according as may be specified in the notice) either—
  - (a) that ventilation which, after the expiration of such period beginning with the day on which the notice becomes operative as may be specified therein, is produced in that part of the mine in pursuance of the said section fifty-five, must conform to such requirements as may be specified in the notice; or
  - (b) that such works for the purpose of improving the ventilation in that part of the mine as may be specified in the notice shall be executed before the expiration of that period.
- (2) The provisions of Part XV of this Act with respect to references upon notices served by inspectors shall apply to a notice served under the foregoing subsection.

#### 58 Provisions as to means of ventilation

- (1) Unless, in all parts of a mine that are required by section fifty-five of this Act to be ventilated, ventilation adequate for the purposes specified in subsection (1) of that section is provided wholly by natural means, there shall be provided and maintained on the surface of the mine mechanically operated apparatus capable of producing in all those parts of the mine an amount of ventilation sufficient (apart from any ventilation produced by any mechanically operated apparatus below ground) to enable all the persons who are below ground in the mine at any one time to leave it safely; and any apparatus provided in pursuance of this subsection shall, if it is not normally used to produce ventilation, be used once at least in each week and be kept constantly available for use.
- (2) Where (whether in pursuance of the foregoing subsection or not) there is provided on the surface of a mine of coal mechanically operated apparatus for producing ventilation below ground in the mine, then, unless that apparatus is so designed or adapted, and is so installed, as to permit of its operation both by way of forcing air into, and by way of exhausting air from, the mine, there shall be provided in association with that apparatus, maintained and kept constantly available for use, adequate means for reversing the direction of flow of the ventilation produced by that apparatus.
- (3) Regulations may—
  - (a) exempt any prescribed class of mines from the provisions of subsection (1) of this section ;
  - (b) exempt any prescribed class of mines of coal from the provisions of subsection (2) of this section ;

and an inspector may, by notice served on the manager of a particular mine other than of coal, exempt the mine from the provisions of the said subsection (1) and may, by notice served on the manager of a particular mine of coal, exempt the mine from the provisions of either or both of those subsections:

Provided that no exemption shall be granted by regulations made by virtue of this subsection unless the Minister is satisfied that no persons employed in mines of the class to which the regulations apply will be exposed to undue risk in consequence of the granting of the exemption, and no exemption shall be granted under this subsection by an inspector in the case of a particular mine unless he is satisfied that no persons employed in that mine will be exposed to undue risk in consequence of the granting of the exemption.

(4) It shall not be lawful to use a fire for ventilation in a mine or, except with the consent of an inspector, given by notice served on the manager of the mine, to release in a mine compressed air for the purpose thereby of diluting or removing inflammable or noxious gas.

## 59 Prevention of leakage of air between airways

(1) Where, of any two lengths of different passages in a mine of coal, stratified ironstone, shale or fireclay, one is made after the commencement of this Act '(whatever the date of the making of, or of any part of, the other), then, unless there is (without any steps being taken for the purpose of minimising the leakage of air between them) no, or no appreciable, leakage of air between them, it shall not be lawful to use one as, or as part of, an intake airway and the other as, or as part of, a return airway unless such steps are taken as are necessary for the purpose of minimising the leakage of air between them:

Provided that nothing in the foregoing provisions of this subsection shall render unlawful the use as, or as part of, an airway of so much of any passage in a mine as lies within the relevant distance from a working face to which air is supplied or from which air is drawn off through that airway.

- (2) For the purposes of the proviso to the foregoing subsection—
  - (a) the expression " relevant distance " means, in relation to a working face in a mine, four hundred and fifty feet (measured from any point on that face in a straight line on any plane) or such other distance, so measured (whether greater or less than four hundred and fifty feet), as may, in any particular case, be determined by an inspector by notice served on the manager of the mine; and
  - (b) the expression " working face " does not include a place in a road at which ripping or work of repair is in progress.

#### 60 Provision of barometers and other measuring instruments

(1) At every mine of coal or fireclay and at every mine other than of coal or fireclay, being either a safety-lamp mine or a mine (other than a safety-lamp mine) containing any waste to which section fifty-six of this Act applies, there shall be provided in a conspicuous place and in such a position as to be easily seen and read by the persons employed at the mine a barometer which shall, in such cases as may be prescribed, be of the prescribed kind.

(2) Provision may be made by regulations for requiring—

- (a) the provision at any such mine as aforesaid of a barometer of a prescribed kind in addition to that required by the foregoing subsection to be provided thereat;
- (b) the provision at the prescribed places in mines of the prescribed instruments for measuring the temperature or humidity, or temperature and humidity, of the atmosphere.
- (3) Every instrument provided at a mine in pursuance of, or of regulations having effect by virtue of, the foregoing provisions of this section shall be properly maintained, and regulations may require that any such instrument shall be read by such persons at such times as may be prescribed and that the readings shall be entered by those persons in a book to be provided for that purpose by the owner of the mine.

Lighting, Lamps and Contraband

## 61 Lighting

- (1) It shall be the duty of the manager of every mine-
  - (a) to secure the provision of—
    - (i) suitable and sufficient lighting (whether natural or artificial) in every part of the mine above ground in or through which persons work or pass (account being taken, where lamps are normally carried by persons who work in or pass through any such part, of the amount of light emitted by those lamps);
    - (ii) suitable and sufficient artificial lighting in every part of the mine below ground in or through which persons work or pass, other than a part in which the installation of artificial lighting is inadvisable for

reasons of safety or is unnecessary because of the amount of light emitted by lamps normally carried by persons who work in or pass through it or for any other reason ;

- (b) to secure that all apparatus installed at the mine for producing artificial fighting thereat is properly maintained.
- (2) Provision may be made by regulations for requiring the provision and maintenance, at such places at a mine as may be prescribed, of such lights as may (be prescribed; but nothing in regulations having effect by virtue of this subsection shall be construed as being in derogation of the general obligation imposed by subsection (1) of this section.

### 62 Permitted lights

- (1) Subject to the provisions of this section, no lamps or lights other than permitted lights shall be allowed or used below ground in a mine of coal first opened on or after the date of the commencement of this Act.
- (2) Subject to the provisions of this section, no lamps or lights other than permitted lights shall be allowed or used below ground in a mine (whether of coal or of any other mineral) first opened before the said date, being either—
  - (a) a mine in the case of which, immediately before that date, the use below ground therein of lamps or lights, other than locked safety-lamps or some other means of lighting the use of which below ground therein was authorised by or under the enactments repealed by this Act, was unlawful or would have been unlawful but for an exemption then in force ; or
  - (b) a mine (other than as aforesaid) in the case of which locked safety-lamps were being used below ground therein immediately before that date otherwise than by way of temporary precaution.
- (3) Subject to the provisions of this section, no lamps or lights other than permitted lights shall, in the case of a mine (whether of coal or of any other mineral) first opened before the said date (not being a mine to which subsection (2) of this section applies) or of a mine other than of coal first opened on or after the said date, be allowed or used below ground after—
  - (a) the occurrence in any part of the mine below ground of an ignition or explosion of gas naturally present in the mine (whether or not causing death or bodily injury); or
  - (b) the introduction of the use, in any part of the mine below ground, of locked safety-lamps otherwise than by way of temporary precaution ; or
  - (c) the expiration of the period of four weeks beginning with the day next following that on which there has become operative a notice served on the manager of the mine by an inspector stating that he is of opinion that no lamps or lights other than permitted lights ought to be used below ground in the mine.
- (4) Such a notice as is mentioned in paragraph (c) of the last foregoing subsection shall not be served otherwise than in a case where inflammable gas is known to have been naturally present in the mine to which it relates at some time during the period of five years ending with the date on which service is effected, and the provisions of Part XV of this Act with respect to references upon notices served by inspectors shall apply to any such notice.
- (5) If an inspector is satisfied with respect to a mine or a part of a mine that, by reason of the special character of the mine or part, compliance with the requirements of the

foregoing provisions of this section is unnecessary, he may, by notice served on the manager of the mine, exempt the mine or part from those provisions:

Provided that no exemption from the said provisions of a part of a mine of coal shall be granted after the expiration of the period of four years beginning with the commencement of this Act or shall be granted or renewed before the expiration of that period otherwise than so as to expire not later than the expiration of that period.

## 63 Safety-lamps and lighting apparatus regulations

Regulations may make provision with respect to-

- (a) the construction of safety-lamps and other lighting apparatus for use in mines and of parts of, and accessories to, such lamps or apparatus ;
- (b) the repair, maintenance, alteration, adjustment and testing of such lamps, apparatus, parts and accessories;
- (c) the giving out to, and the use and handing in by, persons employed at mines of such lamps and apparatus.

# 64 Prohibition of taking into mines safety-lamps not provided by owner or of approved type

- (1) No person shall take or use below ground in a mine a safety lamp other than one provided by the owner of the mine.
- (2) No person shall take or use below ground in a mine a safety lamp other than one of a type for the time being approved by the Minister—
  - (a) for use in mines generally, in mines of a class to which that mine belongs or in that mine; and
  - (b) for use by all persons or persons of a class to which that person belongs.

#### 65 Offences relating to safety-lamps

(1) A person who damages, destroys or loses or suffers to be damaged, destroyed or lost a safety-lamp given out to him at a mine shall be guilty of an offence:

Provided that, in any proceedings taken against a person in respect of an offence under this section with respect to a safety-lamp, it shall be a defence for him to prove that he took reasonable steps for the care and preservation of the lamp and that, immediately after the occurrence of the damage, destruction or loss, as the case may be, he notified an official of the mine of its occurrence.

(2) A person who tampers with a safety-lamp given out to him at a mine shall be guilty of an offence.

## 66 Prohibition of possession of smoking materials in certain mines and parts of mines

(1) A person who takes or has in his possession below ground in a safety-lamp mine or takes into, or has in his possession in, a safety-lamp part of a mine, any cigar or cigarette, any pipe or other contrivance for smoking or any match or mechanical fighter, shall be guilty of an offence. (2) It shall be the duty of the manager of every safety-lamp mine and of every mine containing a safety-lamp part—

- (a) to make, and to ensure the efficient carrying out of, arrangements whereby all persons employed below ground in the mine or, as the case may be, employed in the safety-lamp part thereof or such of those persons as may be selected in accordance with a system approved by an inspector by notice served on the manager of the mine, and any articles which they have with them, and all other persons and any articles which they have with them, will, for the purpose of ascertaining whether any of them has in his possession any such article as is mentioned in subsection (1) of this section, be searched in the authorised manner immediately before, or (if that is impracticable) immediately after, they go below ground in the mine on any occasion or, as the case may be, enter the safety-lamp part thereof on any occasion ; and
- (b) to secure that, at any time when the said arrangements are not in operation, no person goes below ground in the mine or, as the case may be, enters the safety-lamp part thereof;

and the manager of every safety-lamp mine and of every mine containing a safety-lamp part may, at any time when a person is below ground in the mine or is in the safetylamp part thereof, as the case may be, cause him and any article which he has with him to be searched in the authorised manner for the purpose of ascertaining whether he has in his possession any such article as is mentioned in subsection (1) of this section.

- (3) Where, upon a search made in pursuance of this section, a person who is about to go below ground in a safety-lamp mine or to enter a safety-lamp part of a mine is found to have in his possession any such article as is mentioned in subsection (1) of this section, he shall be guilty of an offence.
- (4) Without prejudice to the institution of proceedings against a person for an offence under this section, any such article as is mentioned in subsection (1) of this section which is found upon any search made at a mine in pursuance of this section may be seized by the person making the search and dealt with in such manner as may be directed by the manager of the mine.
- (5) No person shall, in pursuance of this section, search any other person on any occasion unless he has previously given on that occasion an opportunity to some two other persons to search himself and, if searched by them, has not been found to have in his possession any such article as is mentioned in subsection (1) of this section.
- (6) A person who on any occasion refuses to allow himself or an article which he has with him to be searched in pursuance of this section shall be guilty of an offence and, without prejudice to the institution of proceedings against him in respect of the offence, if the refusal occurs before he goes below ground in a mine shall not be allowed to go below ground in it on that occasion and, if the refusal occurs when he is in a mine, shall not be allowed to remain in it on that occasion.
- (7) It shall be the duty of the manager of every safety-lamp mine and of every mine containing a safety-lamp part to secure that, at or near every place where searches are carried out under arrangements made in pursuance of paragraph (a) of subsection (2) of this section, notices warning persons of their liability under subsection (1) thereof are kept posted in such characters and in such positions as to be easily seen and read by persons liable to be searched.
- (8) In this section the expression " mechanical lighter " means a mechanical, chemical or electrical contrivance designed or adapted primarily for the purpose of igniting

tobacco and the expression " authorised manner " means such manner as may be specified in an order made by the Minister.

# 67 Prohibition of taking into certain mines and parts of mines of articles producing flames or sparks

- (1) Subject to the provisions of this section, no article designed or adapted to produce an unprotected flame or an unprotected spark shall be taken or used below ground in a safety-lamp mine or taken into, or used in, a safety-lamp part of a mine.
- (2) Nothing in the foregoing subsection shall be construed as prohibiting—
  - (a) the taking into, or use in, a mine or part of a mine of any article in accordance with this Act or regulations;
  - (b) the taking into, or use in, a mine of any class or part of a mine of any class of an article of a description authorised by order of the Minister to be used in a mine of that class;
  - (c) the taking into, or use in, a mine or part of a mine of an article of a description authorised in writing by an inspector to be used in that mine or, as the case may be, that part of that mine.

#### Electricity and Electrical Apparatus

#### 68 Electricity and electrical apparatus

(1) Regulations may make provision with respect to any of the following matters, namely,

- (a) the generation, storage, transformation, transmission and use of electricity at mines; and
- (b) the use, construction, installation, examination, repair, maintenance, alteration, adjustment and testing of electrical apparatus and electric cables at mines;

shall make provision for requiring that, where the amount of inflammable gas in the general body of the air in a part of a mine below ground exceeds such percentage by volume (which shall not exceed one and a quarter) as may be prescribed, the supply of electricity to all apparatus in that part of the mine (other than such apparatus as may be prescribed, being apparatus as to which the Minister is satisfied that the continued use thereof will not involve undue risk), shall be cut off; and may make provision for requiring the cutting off, in such circumstances (other than as aforesaid) as may be prescribed, of the supply of electricity to apparatus, below ground in a mine.

(2) If, with respect to a mine, an inspector is of opinion that the use of electricity below ground therein or in any part thereof below ground would or might involve substantial risk of an explosion of gas or dust, he may serve on the manager of the mine a notice stating that he is of that opinion, and prohibiting, or restricting to such extent as may be specified in the notice, the use of electricity below ground in the mine or in that part thereof, as the case may be.

The provisions of Part XV of this Act with respect to references upon notices served by inspectors shall apply to a notice served under this subsection and any such notice shall, if it is so specified therein, become operative forthwith.

#### Blasting Materials and Devices

#### 69 Blasting materials and devices

- (1) Regulations may make provision for prohibiting or restricting the supply, storage or use at mines of blasting materials and devices or any class thereof and, in particular, for prohibiting or restricting the use of such materials and devices or any class thereof in a part of a mine below ground at any time at which the amount of inflammable gas in the general body of the air in that part exceeds the prescribed percentage by volume and in such other circumstances (if any) as may be prescribed.
- (2) The Minister may by order impose prohibitions or restrictions on the use, at mines or mines of any class, of any blasting material or device or any class of blasting materials and devices in any case where—
  - (a) regulations having effect by virtue of the foregoing subsection do not prohibit or restrict, or do not, in the opinion of the Minister, sufficiently restrict, the use at mines or mines of that class, as the case may be, of that material or device or such materials and devices of that class, as the case may be ; and
  - (b) the dangers inherent in the use at mines or mines of that class, as the case may be, of that material or device or such materials and devices of that class, as the case may be, are in his opinion such as to render it necessary or expedient for provision for prohibiting or restricting or, as the case may be, further restricting the use at mines or mines of that class, as the case may be, of that material or device or such materials, and devices of that class, as the case may be, to-be made by such regulations and for temporary provision in that behalf to be made forthwith by the order pending the coming into operation of provision in that behalf made by such regulations.
- (3) No blasting material or device shall be taken or used below ground in a mine other than material or a device provided by the owner of the mine.
- (4) In this section the expression " blasting materials and devices " means explosives and any articles designed for the purpose of breaking up or loosening minerals by means of explosion, the expansion of gas, the change of a substance from one physical state to another or a chemical reaction not constituting combustion.

Fire Precautions and Provisions as to Rescue

### 70 Fire precautions in case of workings served by single intake airway

- (1) Subject to the provisions of this section, it shall not be lawful for more than one hundred persons to be employed below ground in a mine of coal in circumstances in which, if there were a fire in any length of intake airway through which, the air supply to all of those persons passes, none of them would be able to withdraw from the mine without either passing through the fire or following a way out to the surface in which, or in any part of which, the air would or might become so contaminated by the products of combustion generated by the fire as to prejudice seriously the possibility of the withdrawal of persons through it in safety, unless—
  - (a) that length of intake airway and everything with which it is equipped are so constructed or treated, and so maintained and used, that that length of airway is, so far as can be reasonably foreseen, free from the risk that any fire

that might break out therein would so develop as to prevent or endanger the withdrawal from the mine of those persons; or

(b) means are provided for securing that, in the event of a fire in that length of intake airway, those persons will be able to withdraw in safety.

In computing, for the purposes of this subsection, the number of persons employed in such circumstances as aforesaid, a person going to or from his working place at the beginning or end of his shift shall, unless it is otherwise prescribed (either generally or in relation to any particular circumstances), be left out of account.

- (2) Until the expiration of the period of five years beginning with the commencement of this Act, so much of any road or other passage serving as an airway as was made before the commencement of this Act shall be disregarded for the purposes of the foregoing subsection.
- (3) Regulations may provide for exempting from the provisions of subsection (1) of this section any prescribed class of mines of coal and an inspector may, by notice served on the manager of a particular mine of coal, exempt the mine or any part thereof from those provisions.
- (4) Regulations may provide that the foregoing provisions of this section shall—
  - (a) apply to mines other than of coal with the substitution, for the reference in subsection (2) to the expiration of the period of five years beginning with the commencement of this Act, of a reference to the expiration of such period beginning with the date on which the regulations come into operation as may be prescribed;
  - (b) have effect, in their application to mines of a prescribed class (whether mines of coal or not), with the substitution, for the reference in subsection (1) to one hundred, of a reference to such less number as may be prescribed.

# 71 Provisions for introduction of compulsory use of approved brattice sheeting and conveyor belting

- (1) The Minister may by order appoint for the purposes of this subsection a day in relation to a class of mines specified in the order, and where a day is appointed under this subsection in relation to a class of mines it shall not, after that day, be lawful to use below ground in a mine of that class brattice sheeting other than of a type for the time being approved by the Minister for use in mines of that class.
- (2) The Minister may by order appoint for the purposes of this subsection a day in relation to a class of mines specified in the order or to parts specified in the order of mines of a class so specified (being parts below ground) and—
  - (a) where a day is appointed under this subsection in relation to a class of mines, it shall not, after that day, be lawful to use below ground in a mine of that class conveyor belting other than of a type approved by the Minister for use in mines of that class;
  - (b) where a day is so appointed in relation to specified parts of mines of a specified class, it shall not, after that day, be lawful to use in any such part of a mine of that class conveyor belting other than of a type approved by the Minister for use in mines of that class.

#### 72 Fire-fighting and rescue operations

Regulations may require the making of such provision as may be prescribed for all or any of the following purposes, namely, the prevention, detection and combating of outbreaks of fire at, and spontaneous heating occurring in, mines and the securing of the efficient conduct (as well in an atmosphere dangerous to life as in an atmosphere not dangerous to life) of such operations for the rescue of persons as it may be necessary to conduct at mines in consequence of the occurrence thereat of outbreaks of fire, explosions or other accidents of whatsoever kind, and in particular, but without prejudice to the foregoing provisions of this section, regulations may make provision—

- (a) for the establishment and maintenance at mines of such organisations of persons as may be necessary for any of the purposes aforesaid and the provision and maintenance at mines of suitable and sufficient apparatus for any of those purposes, and, in particular, the provision at mines of adequate supplies of water for use in case of fire ;
- (b) for requiring owners of mines to provide and maintain stations (hereafter in this Act referred to as " central rescue stations ") for the purpose of providing facilities common to a number of mines for the conduct of such operations as aforesaid, and for the establishment and maintenance at such stations of such organisations of persons as may be necessary for the purpose of conducting such operations and the provision and maintenance thereat of suitable and sufficient apparatus for that purpose; and
- (c) for securing the efficient training of the members of any organisation of persons maintained in pursuance of the regulations.

#### 73 Means of escape from rooms in which there is special risk of fire, and c

It shall not be lawful for a person to be employed at a mine in a room, chamber, or similar confined space in which, owing to the nature of any machinery or apparatus installed therein or of any materials stored therein, there is a risk of the outbreak of a dangerous fire or the escape of steam in substantial quantity or of noxious gas in a dangerous concentration, unless either such steps are taken (whether by the provision of two or more exits or otherwise) as are necessary for the purpose of minimising the risk of his being trapped therein in any such event or the circumstances in which he is employed are themselves such as to minimise the risk of his being so trapped.

#### **Dust Precautions**

## 74 **Dust precautions**

- (1) It shall be the duty of the manager of every mine to ensure that, in connection with the getting, dressing and transporting of minerals below ground in the mine, the giving off of—
  - (a) any dust that is inflammable ; and
  - (b) dust of such character and in such quantity as to be likely to be injurious to the persons employed;
  - is minimised.
- (2) Where, in connection with the carrying on of any operations or process below ground in a mine or in a building on the surface of a mine, there is given off any dust that is inflammable or dust of such character and in such quantity as to be likely to be

injurious to the persons employed, it shall be the duty of the manager of the mine to ensure—

- (a) that the entry of the dust into the air or its accumulation in any place in circumstances in which its accumulation in that place might be dangerous or harmful is minimised by means of steps in that behalf taken as near as possible to the point of origin of the dust;
- (b) that any of the dust which enters the air is trapped or so dispersed as to render it harmless; and
- (c) that any of the dust which is not prevented from accumulating in a place in circumstances in which its accumulation in that place might be dangerous or harmful is either systematically cleaned up and removed to a place where it cannot be dangerous or harmful or treated in manner approved by the Minister for the purpose of rendering it harmless.
- (3) Regulations may impose upon managers of mines such requirements with respect to the use thereat of prescribed apparatus and the taking thereat of prescribed steps as it may appear to the Minister requisite or expedient to impose for the purpose of attaining any of the objects mentioned in the foregoing provisions of this section; and regulations having effect by virtue of this subsection may provide either that compliance therewith by the manager of a mine is to be taken, either without qualification or to a prescribed extent, as compliance with all or any of the requirements of the said provisions or that compliance with the regulations by the manager of a mine is not necessarily to be taken as compliance with any of the said requirements.

#### Precautions against external Dangers to Workings

## 75 Duty of mine owners and managers to seek evidence of proximity of disused workings, water-bearing strata, and c

- (1) In the case of every mine, the owner thereof and the manager thereof shall each be charged with the duty—
  - (a) of taking such steps as may be necessary for securing that he is at all material times in possession of all information which indicates or tends to indicate the presence or absence, in the vicinity of any workings carried on or proposed to be carried on in the mine, of—
    - (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 is likely to flow when wet; and
  - (b) of taking such steps as may be necessary for the purpose of substantiating any such information which comes into his possession (whether in consequence of the discharge of the duty imposed upon him by the foregoing paragraph or not).
- (2) In the case of every mine, the owner thereof and the manager thereof shall each be charged with the duty—
  - (a) forthwith after any such information as is mentioned in paragraph (a) of the foregoing subsection comes into his possession (whether in consequence of

the discharge of the duty imposed upon him by that paragraph or not), of furnishing to the other particulars of the information; and

(b) forthwith after taking any steps in discharge of the duty imposed upon him by paragraph (b) of that subsection, of furnishing to the other particulars of the steps taken and of any conclusion reached as a result of taking them.

# 76 Duty of mine owners and managers to ascertain thickness of strata between workings and surface water

- (1) It shall be the duty both of the owner and of the manager of every mine to take, with respect to any workings carried on or proposed to be carried on in the mine in the vicinity of the sea, a lake or river or any other body of surface water (whether accumulated naturally or artificially) such steps as may be necessary for ascertaining the total thickness of the strata lying between the workings and the surface water.
- (2) In the case of every mine, the owner thereof and the manager thereof shall each be charged with the duty, forthwith after obtaining any information in consequence of the discharge of the duty imposed upon him by the foregoing subsection, of furnishing to the other particulars of the information obtained.

## 77 General duty to take precautions against inrushes of gas, water, and c

It shall be the duty of the manager of every mine to take, with respect to every working in the mine, such steps as may be necessary to prevent any inrush into the working of gas from disused workings (whether mine workings or not) or of water or material that flows when wet (whether from disused workings or from any other source).

#### 78 Powers of inspectors with respect to danger from inrushes of gas, water, and c

- (1) Where an inspector is of opinion, with respect to a working in a mine, that there is a danger of the occurrence of such an inrush into the working as is mentioned in the last foregoing section, being a danger that in his opinion is capable of being averted, and either no steps for averting the danger have been taken or steps that have been taken for that purpose appear to the inspector to be inadequate or improper, he may serve on the manager of the mine a notice specifying the working, stating that he is of opinion aforesaid with respect thereto, and that, as the case may be, no steps for averting the danger have been taken or steps are to him to be inadequate or improper, and imposing all or any of the following requirements, that is to say:—
  - (a) a requirement that the manager shall, before the expiration of such period beginning with the date on which the notice becomes operative as may be specified therein, execute such works for the purpose of averting the danger as may be specified in the notice;
  - (b) a requirement that, until such works have been executed, no person shall (save for the purpose of executing the works or saving life) be permitted by the manager to be in the mine or in such part thereof as may be specified in the notice;
  - (c) a requirement that operations for getting minerals in the working shall, to such extent as may be specified in the notice, be discontinued until such works have been executed, or shall not be continued otherwise than in accordance with such a system of working as may be so specified.

- (2) Where an inspector is of opinion, with respect to a working in a mine, that there is a danger of the occurrence of such an inrush into the working as is mentioned in the last foregoing section, being a danger that in his opinion is not capable of being averted, he may serve on the manager of a mine a notice specifying the working, stating that he is of opinion aforesaid with respect thereto, and requiring that operations for getting minerals in the working be permanently discontinued and, if the inspector thinks fit, imposing, in addition, either or both of the following requirements, that is to say:—
  - (a) a requirement that the manager shall, before the expiration of such period beginning with the date on which the notice becomes operative as may be specified therein, execute such works for the purpose of protecting the rest of the mine as may be so specified ;
  - (b) a requirement that, until such works have been executed, no person shall (save for the purpose of executing the works or saving life) be permitted by the manager to be in the mine or in such part thereof as may be specified in the notice.
- (3) The provisions of Part XV of this Act with respect to references upon notices served by inspectors shall apply to a notice served under either of the foregoing subsections, and any such notice shall, if it is so specified therein, become operative forthwith.

Duties of Officials and Workmen in Cases of Danger

#### 79 Withdrawal of workmen in cases of danger

- (1) Where inflammable gas is present at a place below ground in a mine in a concentration deemed for the purposes of this section to be excessive, the person in charge of the part of the mine in which that place is situate shall comply with the following requirements, namely:—
  - (a) he shall forthwith cause all persons employed in so much of that part of the mine as appears to him to be affected (hereinafter referred to as the "affected area") to leave it;
  - (b) unless he is the manager of the mine, he shall, forthwith after complying with the foregoing paragraph, inform his immediate superior and the person in charge of any other part of the mine appearing to him to be likely to be affected that inflammable gas is present at the said place in a concentration deemed as aforesaid to be excessive;
  - (c) so soon after complying with paragraph (b) of this subsection (or, in a case where that paragraph does not apply, paragraph (a) of this subsection) as it is possible so to do without undue risk, he shall himself ascertain, or cause some competent person to ascertain, the condition of the affected area and the measures that it is necessary to take for the purpose of rendering it safe.
- (2) The foregoing subsection shall, with the requisite modifications, apply where it appears to the person in charge of a part of a mine below ground that there exists at a place in that part a danger constituted—
  - (a) by the presence of inflammable gas (whether or not the concentration thereof is deemed for the purposes of this section to be excessive); or
  - (b) otherwise howsoever;

as it applies in the circumstances mentioned in that subsection.

- (3) Where, on any occasion, persons have been caused to leave an affected area in pursuance of the foregoing provisions of this section, no person shall thereafter be permitted to enter it until both of the following conditions are fulfilled, namely,—
  - (a) that inflammable gas is not present at any place therein in a concentration deemed for the purposes of this section to be excessive; and
  - (b) that the appropriate person is satisfied that it is free from all danger (whether constituted by the presence of inflammable gas or otherwise howsoever):

Provided that nothing in this subsection shall be taken to prohibit a person from entering an affected area for the purpose of saving life, giving effect to paragraph (c) of subsection (1) of this section, rendering that area or any other part of the mine safe or ascertaining either the effectiveness of any measures taken for the last-mentioned purpose or whether, apart from this proviso, persons may lawfully be permitted to enter the affected area.

- (4) Where persons have, on any occasion, been caused to leave an affected area in pursuance of the foregoing provisions of this section, the person who caused them to leave it shall record in a book to be provided for that purpose by the owner of the mine particulars of the reason for his causing them to leave that area and of the matters disclosed as a result of giving effect to paragraph (c) of subsection (1) of this section and subscribe his signature thereto.
- (5) For the purposes of this section the concentration of inflammable gas present at a place in a mine shall be deemed to be excessive—
  - (a) if, being a place in—
    - (i) a safety lamp mine; or
    - (ii) a part of a mine other than a safety-lamp mine, being a part in which the use of lamps or lights other than permitted lights is unlawful;

the amount of such gas present in the general body of the air at that place is not less than two per cent. by volume or, if a greater percentage by volume (not exceeding two and a half) is prescribed, that greater percentage ;

- (b) if, being a place other than such a place as is mentioned in the foregoing paragraph, either—
  - (i) the amount of such gas present in the general body of the air at that place is not less than one and a quarter per cent. by volume or, if a smaller percentage by volume is prescribed, that smaller percentage; or
  - (ii) an indication of gas is seen at that place on the lowered flame of a safety lamp;

and for the purposes of subsection (3) of this section the appropriate person, in relation to an affected area, shall be the person in charge of the part of the mine which consists of, or includes, that area, except in a case where any of his superiors is present, and in the said excepted case shall be the senior of his superiors present.

#### 80 Duty of workmen to deal with, or report, danger

If it appears to a person employed at a mine (not being an official of the mine) that a danger affecting the mine or a part thereof has arisen or is about to arise, he shall—

(a) if the taking of measures to render the mine or part safe after that danger has arisen or to prevent that danger from arising, as the case may be, falls within the scope of his normal duties, forthwith take those measures; and

(b) if not, forthwith report the matter to an official of the mine.

#### Machinery and Apparatus

#### 81 Construction, maintenance, and c., of machinery and apparatus

- (1) All parts and working gear, whether fixed or movable, including the anchoring and fixing appliances, of all machinery and apparatus used as, or forming, part of the equipment of a mine, and all foundations in or to which any such appliances are anchored or fixed shall be of good construction, suitable material, adequate strength and free from patent defect, and shall be properly maintained.
- (2) Provision may be made by regulations—
  - (a) for imposing such requirements (in addition to those imposed by the foregoing subsection) with respect to the construction, installation, maintenance, use, testing, repair, adjustment, alteration and examination of such machinery or apparatus as aforesaid as appear to the Minister to be expedient in the interests of the safety or health of persons employed at mines; and
  - (b) for prohibiting the installation at mines of machinery or apparatus constructed in contravention of the regulations.

#### 82 Fencing of exposed parts of machinery

- (1) Subject to the provisions of this section, every flywheel and every other dangerous exposed part of any machinery used as, or forming, part of the equipment of a mine shall be securely fenced; and where means of fencing are prescribed with respect to any such part of any such machinery as aforesaid, the fencing provided in pursuance of the foregoing provisions of this subsection for that part shall be provided by those means.
- (2) It shall be the duty of the manager of every mine to ensure that fencing provided in pursuance of the foregoing subsection is properly maintained and is kept in position while the parts required to be fenced are in motion or in use, except where such parts are exposed for an examination or adjustment which it is necessary to carry out while they are in motion or use and all such conditions as may be prescribed are complied with.

### 83 Restrictions on use below ground of certain engines, and c

No internal combustion engine, steam boiler or locomotive shall be used below ground in a mine otherwise than in accordance with the provisions of regulations in that behalf or with the consent of the Minister or an inspector.

#### 84 Air, gas and steam containers

- (1) All apparatus used as, or forming, part of the equipment of a mine, being apparatus which contains or produces air, gas or steam at a pressure greater than atmospheric pressure shall be so constructed, installed, maintained and used as to obviate any risk from fire, bursting, explosion or collapse or the production of noxious gases.
- (2) Provision may be made by regulations for prohibiting the installation at mines of such apparatus as aforesaid at places of such descriptions as may be prescribed and for

requiring reports to be made of the results of examinations thereof made in pursuance of provisions of regulations having effect by virtue of section eighty-one of this Act.

(3) The Minister may at any time require any such apparatus as aforesaid at a mine to be examined by a person nominated by him and the manager of the mine shall give the necessary facilities for the examination ; and if, as a result of the examination, it appears that any report of the result of an examination of the apparatus (being a report made in pursuance of regulations having effect by virtue of the last foregoing subsection) was inadequate or inaccurate in a material particular, the cost of the examination under this subsection shall be recoverable by the Minister from the owner of the mine.

## 85 Loading of cranes, and c

- (1) There shall be plainly marked on every crane, crab and winch used as, or forming, part of the equipment of a mine the safe working load or loads thereof, except that, in the case of a jib crane so constructed that the safe working load may be varied by the raising or lowering of the jib, there shall be attached thereto either an automatic indicator of safe working loads or a table indicating the safe working loads at corresponding inclinations of the jib or corresponding radii of the load.
- (2) No person shall, except for the purpose of a test, load any such crane, crab or winch as aforesaid beyond the safe working load marked or indicated thereon in pursuance of the foregoing subsection.
- (3) This section shall not apply to winding apparatus with which a mine shaft or staplepit is provided or to any rope haulage apparatus, and regulations may provide that this section shall not apply to any other apparatus of a prescribed class.

Buildings, Structures, Means of Access, &c

## 86 Buildings and structures to be kept safe

All buildings and structures on the surface of a mine shall be kept in safe condition.

#### 87 Safe means of access and safe means of employment

- (1) There shall be provided and maintained safe means of access to every place in or on a building or structure on the surface of a mine, being a place at which any person has at any time to work.
- (2) Where a person is to work at any such place as aforesaid from which he will be liable to fall a distance of more than ten feet, then, unless the place is one which affords secure foothold and, where necessary, secure hand-hold, means shall be provided by fencing or otherwise for ensuring his safety.

#### Training and Discipline

### 88 Restriction on doing of work by unskilled persons

It shall be the duty of the manager of every mine to secure that no person is employed thereat in any work otherwise than under the instruction and supervision of some

person competent to give instruction in, and supervise, the doing of that work, unless the first-mentioned person has received adequate instruction in, and (where necessary) training for, the doing of that work and is competent to do it without supervision.

### 89 Penalization of failure to observe safety directions, and c

A person employed at a mine who contravenes-

- (a) any transport or support rules having effect with respect to the mine ; or
- (b) any directions given to him by or on behalf of the owner or manager of the mine or any rule made by the manager of the mine for regulating the conduct either of all persons employed thereat or any class of persons so employed to which that person belongs, being directions given, or a rule made, for the purpose of securing compliance with this Act, orders made thereunder or regulations or any transport or support rules having effect with respect to the mine or of securing the safety or health of that person or any other person employed at the mine ;

shall be guilty of an offence.

# 90 Penalization of negligent acts or omissions and unauthorised removal, and c, of articles

- (1) A person who negligently or wilfully does at a mine anything likely to endanger the safety of the mine or the safety or health of persons thereat or negligently or wilfully omits to do at a mine anything necessary for securing the safety of the mine or the safety or health of persons thereat shall be guilty of an offence.
- (2) A person (not being an official of the mine) who, without permission granted by such an official, removes, alters or tampers with anything provided at a mine for the purpose of securing the safety or health of persons employed thereat shall be guilty of an offence.

## First Aid

## 91 First aid

- (1) It shall be the duty of the manager of every mine to secure the provision thereat of adequate facilities and equipment for the purpose of rendering first-aid to persons employed at the mine who, while so employed, suffer bodily injury or become ill.
- (2) Regulations may—
  - (a) determine for mines of any class what are adequate facilities and equipment for the purposes of the foregoing subsection;
  - (b) require the attendance at mines during working hours of persons trained in first-aid treatment and the making and carrying out at mines—
    - (i) as respects persons who, while employed below ground thereat, suffer bodily injury or become ill, of such arrangements for their conveyance from the place where they were injured or became ill to the surface as may be prescribed; and
    - (ii) as respects persons who, while employed thereat (whether above or below ground), suffer bodily injury or become ill, of such

arrangements for their conveyance (where necessary) to hospitals or their homes as may be prescribed.

#### Medical Examinations and Prohibition of Heavy Work

#### 92 Medical examination of young persons

Provision may be made by regulations for requiring young persons employed or seeking employment at mines to submit themselves for medical examination and for prohibiting the employment at a mine, either absolutely or in a particular capacity or in particular work, of—

- (a) a young person who upon being required to submit him self for medical examination in accordance with the regulations fails without reasonable cause to do so;
- (b) a young person as to whom it is determined in accordance with the regulations that, by reason of his physical or mental condition, he is unfit for such employment or for such employment in that capacity or in that work, as the case may be.

### 93 Prohibition of heavy work by women and young persons

A woman or young person shall not be employed at a mine to lift, carry or move a load so heavy as to be likely to cause injury to that woman or young person.

#### General Welfare Provisions

#### 94 Sanitary conveniences

- (1) It shall be the duty of the manager of every mine to secure the provision thereat (as well below as above ground) of sufficient and suitable sanitary conveniences for the use of persons employed thereat being, in a case where persons of both sexes are, or are intended to be, so employed, conveniences affording proper separate accommodation for persons of each sex.
- (2) All sanitary conveniences provided in pursuance of the foregoing subsection shall be kept clean and properly maintained and reasonable provision shall be made for lighting them.

#### 95 Measures against vermin and insects

- (1) It shall be the duty of the owner of every mine to take such steps as are necessary to secure that all parts of the mine below ground are kept free from rats and mice, and provision may be made by regulations for requiring owners of mines to take steps for the destruction below ground therein of insects or any prescribed class of insects or otherwise for keeping parts of mines below ground free from insects or any prescribed class of insects.
- (2) Nothing in this section shall be construed as excluding the application to parts of mines below ground of any of the provisions of the Prevention of Damage by Pests Act, 1949.

### 96 Welfare regulations

Regulations may impose such requirements with respect to the provision and maintenance, for the use of persons employed at mines, of—

- (a) washing facilities, including soap and clean towels or other suitable means of cleaning and drying;
- (b) accommodation and facilities for changing into clothing worn during working hours and for storing and drying clothing so worn and clothing not so worn; and
- (c) canteens, or accommodation and facilities (including facilities for heating food and boiling water) for enabling such persons to partake of meals provided by themselves;

as appear to the Minister to be expedient for the purpose of securing the welfare of such persons.

## 97 Supply of drinking water

There shall be provided and maintained on the surface of every mine, at suitable points conveniently accessible to all persons employed at the mine, an adequate supply of wholesome drinking water.