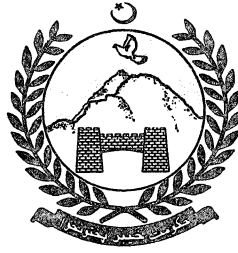


EXTRAORDINARY
GOVERNMENT



REGISTERED NO. PIII
G A Z E T T E

KHYBER PAKHTUNKHWA

Published by Authority

PESHAWAR, WEDNESDAY, 30th JUNE, 2022.

GOVERNMENT OF THE KHYBER PAKHTUNKHWA
MINERALS DEVELOPMENT
DEPARTMENT

NOTIFICATION

Dated Peshawar, the 26th August, 2021.

No.SO(Appeal)MDD/6-1/MC/MAct/2020/2648-54.----The following draft rules which the Provincial Government of the Khyber Pakhtunkhwa Province in exercise of the powers conferred by section 65 of the Khyber Pakhtunkhwa Mines Safety, Inspection and Regulation Act, 2019 (Khyber Pakhtunkhwa Act No. V of 2020), proposes to make in supersession of the Coal Mines Regulations, 1926 and the Pithead Bath Rules, 1946, are hereby published, in pursuance of sub-section (1) of section 68 of the Act *ibid*, for the information of persons likely to be affected thereby and notice is hereby given that the said rules together with any objections or suggestions with respect thereto, which may be received by the Secretary to Government of the Khyber Pakhtunkhwa, Minerals Development Department within a period of three months from the date of publication of this notification in the official Gazette shall be taken into consideration. After the expiry of the said period:

KHYBER PAKHTUNKHWA COAL MINES RULES, 2021.

CHAPTER-I PRELIMINARY

1. Short title, application and commencement.---(1) These rules may be called the Khyber Pakhtunkhwa Coal Mines Rules, 2021.

- (2) They shall apply to coal mines.
- (3) They shall come into force at once.

2. Definitions.---(1) In these rules, unless there is anything repugnant in the subject or context-

- (a) "Act" means the Khyber Pakhtunkhwa Mines Safety, Inspection and Regulation Act, 2019 (Khyber Pakhtunkhwa Act No. V of 2019);

- (b) “approved safety lamp”, “approved flame safety lamp”, gas detector and “approved electric torch” means, respectively, a safety lamp, a flame safety lamp, gas detector or an electric torch manufactured by such firm and of such type as the Chief Inspector may from time to time specify by notification and include any other safety lamp, detector or electric torch approved by the Chief Inspector by an order in writing;
- (c) “competent authority” means the Chief Inspector of mines or any other person authorized by him in this behalf;
- (d) “District Magistrate” in relation to any mine means the District Magistrate of the district in which the mine is situated:

Provided that in the case of mine which is situated partly in the one district and partly in another, the District Magistrate for the purpose of these rules shall be the District Magistrate authorized in this behalf by Government;

- (e) “mining mate” means a person possessing Mate’s Certificate of Competency and appointed by the mine manager in writing to perform the duties of a mining mate under these rules;
- (f) “permitted explosive” means an explosive permitted by the Chief Inspector subject to such conditions as he may from time to time determine by notification;
- (g) “pithead bath” means a bathing place at or near at pithead for the use of mine, equipped with shower baths, locker rooms and ancillary facilities, such as latrines, urinals and attendants rooms;
- (h) “Schedule” means the Schedule appended to these rules; and
- (i) “ventilating district” means such part of a mine as has an independent intake airway commencing from a main intake airway, and an independent return airway terminating at a main return airway.

(3) Words and expressions used in these rules but not defined shall have the same meanings as are assigned to them under the Act.

CHAPTER-II PLANS

3. **Requirements of the plan.**—(1) All plans of coal mines prepared in accordance with the provisions of this Chapter shall-

- (a) bear the name of the mine and of the owner;
- (b) show the scale together with the magnetic meridian and the date of the letter;

- (c) be properly inked on durable paper or on tracing cloth; and
- (d) be on the following scales:
 - (i) 1: 1000 for underground working plans;
 - (ii) 1: 1000 for mine surface plans;
 - (iii) 1: 1000 for ventilation plans; and
 - (iv) 1:1000 for ground surface plans of entire lease area:

Provided that where plans have been prepared on any other scale before the commencement of these rules, the Chief Inspector may on application by the owner, agent or mine manager, permit such plans to be maintained on that scale.

(2) The code of signs set out in the Schedule shall be utilized in plans made under the provisions of this Chapter.

4. Owner, agent or mine manager to keep plan of the working.---(1) The owner, agent or mine manager of every mine shall keep a plan of workings of the mine. The position of the workings at the time of the last survey shall be shown by dotted line drawn through the ends of the workings. Such dotted line shall be marked with the date of the last survey.

(2) The plan shall also show all shafts and incline openings, all goaves, the boundaries of the underground leased area, where possible, and all important features within the boundaries, such as railways, roads, rivers, streams, tanks, buildings and reservoirs which overlie any part of the workings or any point within 183.0 meters of any part of the workings measured on the horizontal plan. The plan shall also show the general directions and rate of dip of the strata, the depth of every shaft, a section of the ~~seam being~~ worked and the position of all faults and dykes with amount and directions of their throw.

(3) There shall be separate plan of the workings of each seam and of each separate section of each seam.

(4) The positions of any underground ambulance stations and telephones shall be indicated on the plan.

5. Owner, agent or mine manager to keep separate tracing.---The owner, agent or mine manager of every mine shall also keep a separate tracing of a surface plan showing all surface features referred to in rule 4 and in addition all buildings and erections on the surface and within the boundaries which overlie the workings of the mine or any point within 183.0 meters of the workings measured on the horizontal plan.

6. Owner, agent or mine manager to keep separate plan of system of ventilation.--(1) The owner, agent or mine manager of every mine shall also keep a separate plan showing the system of ventilation in the mine and in particular the general direction of the air-currents, the points where the quantity of air is measured and the principal devices for the regulation and the distribution of the air.

(2) So far as practicable the intake airways shall be colored blue and the return airways red.

7. **Plan to be kept in office at the mine.**---The plan under the provisions of this Chapter shall be kept in the office at the mine. They shall be accurate and shall be maintained up-to-date within six months:

Provided that where any mine is abandoned or the working thereof has been discontinued, the plan shall, before such abandonment or immediately after such discontinuance, be brought up-to-date to the time of abandonment or discontinuance, as the case may be, unless such abandonment or discontinuance has been caused by circumstances beyond the control of the owner, agent or mine manager in which case the fact that the plan is not up-to-date shall be recorded on it.

8. **Provisions of rules 3, 4, 5, 6 and 7 not to apply to certain mines.**---Nothing in rules 3, 4, 5, 6 and 7 shall be deemed to apply to any mine in which the workings do not extend under the superjacent ground or any mine in which excavation is being made for prospecting purpose only:

Provided that the Chief Inspector may direct that the provisions of the aforementioned rules shall apply to any such mine to such extent as he may think fit.

9. **Owner, agent or mine manager to produce maps.**---(1) The owner, agent or mine manager of every mine shall at any time produce to the Chief Inspector or the Inspector concerned at the office or at the mine, such plans and sections as may be required and also mark on such plans and sections the then state of working of the mine.

(2) The Chief Inspector or the Inspector concerned shall be entitled to examine the plans and the sections and for the official purpose to make or have a copy made of any part thereof respectively.

10. **Plan of mine abandoned or where work is discontinued for more than one year.**---Where any mine is abandoned or the working thereof has been discontinued over a period exceeding one year, the person who was the owner of the mine at the time of the abandonment or discontinuance shall, within three months after the abandonment or within fifteen months after the discontinuance of working, as the case may be, send to the Chief Inspector and the Inspector concerned accurate plans and sections of working of the mine or seam up to the time of the abandonment or discontinuance, showing the pillars of coal remaining un-worked and all other features required in compliance with these rules or a true and accurate copy of the seam:

Provided that if a change of ownership occurs after the abandonment or discontinuance and before the expiry of three months or fifteen months as aforesaid, as the case may be, such plans and sections shall be sent forthwith.

11. **Inspection of plans of abandoned mines.**---After the expiry of six months from the date of abandonment or discontinuance of working in any mine or where the consent of owner of the mine for the time being has been obtained, prior to the expiry of the said period, the Chief Inspector may, on such conditions as he thinks fit to impose, permit any person having an interest in the said mine to inspect the plan or section of such mine sent to

him in accordance with the provisions of rule 10, and may further, on such conditions as he thinks fit to impose, supply to any such person copies of the like plan or section.

12. **Plans to be prepared under the supervision of surveyor.**---Government may direct that after such date and in such areas as it may appoint in this behalf, the plans required to be kept under the provisions of this Chapter or to be sent under rule 10, shall be prepared by or under the supervision of a Surveyor who has been granted a Surveyor's Certificate under the Khyber Pakhtunkhwa Conduct of Examination Rules.

CHAPTER-III

COMPETENT PERSONS, THEIR DUTIES AND RESPONSIBILITIES.

13. **Certain interconnected underground workings to be deemed as one mine.**---(1) For the purpose of this Chapter, every system of underground workings interconnected in such a manner that communication is practicable from any one part of the system to any other part by means of underground channels, shall be deemed to constitute one mine.

(2) If access from one system of underground workings to another such system is not so practicable each such system shall be deemed to constitute a separate mine.

14. **A mine manager may supervise more than one mine.**---(1) A duly qualified mine manager may be permitted by order in writing of the Chief Inspector to manage more than one mine, if the Chief Inspector is of opinion that the mines to be supervised by him are sufficiently near to each other to permit of an effective supervision being exercised, and that an adequate supervising staff is maintained at each mine.

(2) The Chief Inspector may at any time, by order in writing revoke any such permission for reasons to be recorded and communicated to the owner, agent or mine manager of the mines.

(3) Save as provided by sub-rule (1), no person shall act as mine manager of more than one mine.

15. **Mine manager of coal mine.**---(1) No person shall be employed in a mine as mine manager unless he is paid by and is directly answerable to the owner of the mine.

(2) The owner or agent of a mine shall not take any part in the technical management of the mine unless he holds qualifications equivalent to or higher than those prescribed for the mine manager.

16. **Qualification of mine manager of certain mines.**---Save as hereinafter provided in rule 17-

(a) no person shall act as mine manager, the average monthly output of which exceeds 2,500 tons, unless he holds a First Class Mine Manager Certificate granted under the Khyber Pakhtunkhwa Conduct of Examination Rules;

(b) no person shall act as mine manager, the average monthly output of which exceeds 600 tons, unless he holds a First or Second Class Mine Manager's Certificate granted under the rules referred to in clause (a); and

- (c) no person shall act as Mine Manager, the average monthly output of which does not exceed 600 tons, unless he holds a First or Second Class Mine Manager's Certificates granted under the rules referred to in clause (a): or holds a Manager Permit granted by the Chief Inspector

Provided that:

- (i) the Chief Inspector may by order in writing direct that in the case of any such mine as is referred to in clause (b), the Mine Manager thereof shall be holder of a First Class Mine Manager Certificate granted under the rules referred to in clause (a); and
- (ii) in the case of any such mine as is referred to in clause (c), the mine manager thereof shall be the holder of a First or Second Class Mine Manager Certificate granted under the rules referred to in clause (a):

Provided further that an appeal from any order passed by the Chief Inspector under the foregoing proviso shall lie to the Mining Board constituted under section 12 of the Act and the order of the Mining Board in appeal shall be final.

17. Power of Chief Inspector to authorize any person to act as mine manager of a mine.---(1) The Chief Inspector may, by order in writing, authorize any person, whom he may consider competent to act as mine manager of any mine for a specified period, notwithstanding that such person does not possess the qualifications prescribed in that behalf by rule 16, on the condition that such mine shall be inspected at least once in three months by a person holding a First Class Mine Manager's Certificate and report of such inspection is recorded and made available to the Chief Inspector and the Inspector concerned on demand.

(2) The Chief Inspector may by an order in writing revoke any such authority given under sub-rule (1), at any time and such order shall be final.

18. Duties and responsibilities of mine manager.---(1) In every mine daily personal supervision shall be exercised by the mine manager, appointed under Section-20 of the Act. He shall visit and examine the workings below ground on at least four days every week to see that safety in every respect is ensured. Of these inspections once at least in every fortnight, shall be made during the night shift, if any:

Provided that when owing to any unavoidable cause he is unable to carry out such inspection on any day, he shall record reasons for the same in the bound-paged book kept for the purpose.

(2) Where by reason of illness or for any other reason, the mine manager is unable to exercise personal supervision for a long time, the owner, agent or mine manager shall authorize in writing a person whom he considers competent to act as mine manager of the mine temporarily:

Provided that-

- (a) such person holds a Mine Manager's Certificate or a Sirdar's Certificate;
- (b) no such authorization shall have effect for a period in excess of one month except with the previous consent of the Chief Inspector nor without the like consent shall a second authorization be made to take effect upon the expiry of the first;
- (c) the owner, agent or mine manager, as the case may be, shall send to the Chief Inspector with the least possible delay, a written notice intimating that such an authorization has been made and stating the reason for the authorizations and qualifications and experience of the person authorized and the dates of the commencement and ending of the authorization; and
- (d) the Chief Inspector may by order in writing revoke any authority so granted and such order shall be final.

(3) The mine manager shall maintain, in a bound-paged book kept for the purpose, a diary and shall record therein the result of each of his inspections and also the actions taken by him to rectify the defects noted.

(4) The mine manager shall make arrangements for all over-men or other officials to meet him, the under-mine manager or assistant mine manager once in every working day for the purpose of conferring on matters connected with their duties.

(5) The mine manager of every mine shall ensure that a sufficient supply of proper materials and appliances for the purpose of carrying out the provisions of the Act and of the rules made there under and ensure that the safety of mine and the persons employed therein is always provided at the mine, and if he be not owner or agent of the mine, he shall report in writing to the owner or agent of the mine when anything is required for the aforesaid purpose that is not within the scope of his authority to order. A copy of every report made under this sub-rule shall be kept in the office at the mine.

(6) The mine manager shall give attention to, and cause to be carefully investigated, any specific representation or complaint that may be made to him in writing by an employee of the mine as to any matter affecting the safety or health of persons in or about the mine.

(7) The mine manager shall perform such other duties as have been prescribed in that behalf under the Act and rules or orders made thereunder.

(8) The mine manager may suspend or take such disciplinary action against any employee for contravention of any of the provisions of the Act and of the rules or orders made thereunder.

19. **Powers of mine manager to appoint competent persons.**---(1) The mine manager of every mine shall appoint in writing such number of competent persons as will be sufficient to secure a thorough supervision of all the operations in the mine and the enforcement of the requirements of the Act and the rules made thereunder.

(2) The mine manager shall-

- (a) assign to every such person his particular duties;
- (b) make over to him a copy of the rules which affect him; and
- (c) take all possible steps to ensure that every such person understands, carries out and enforces the provision therein contained.

(3) Copies of all appointments and all authorization made under sub-rule (1), shall be entered and kept in the office at the mine.

(4) Every mine manager shall, on appointment, satisfy himself that all persons already appointed under sub-rule (2) of rule 20 or authorized under these rules to discharge any functions are competent to perform the duties assigned to them.

(5) No person shall be appointed under this rule unless he is paid by the owner and is directly answerable to the mine manager.

20. **Mine manager to examine and sign reports and documents etc.**---(1) The mine manager shall examine all reports, registers and other records required to be made or kept in pursuance of the Act or of the rules or orders made thereunder and shall countersign the same with date.

(2) The mine manager may, however, by an order in writing, delegate this duty to any competent person except in cases where a specific provision is made requiring the mine manager to countersign a report or register.

21. **Duties of under-mine managers and assistant mine managers.**---(1) The under-mine manager or assistant mine manager shall carry out the duties assigned to them by the mine manager, and shall see that in the part of the mine assigned to them by the mine manager, all work is carried out in accordance with the provisions of the Act and of the rules and orders made thereunder.

(2) The under-mine manager or assistant mine manager shall, subject to the orders of the mine manager, visit and examine the workings under his charge or part thereof, on every working day. Results of each of such visits and examination of working shall be reported to the mine manager.

(3) The under-mine manager or assistant mine manager shall, from time to time, carefully examine every travelable part of the mine or part thereof placed under his charge, whether requested by work persons or not.

(4) In the absence of mine manager, the under-mine manager or assistant mine managers shall have the same responsibility, discharge the same duties and be subject to the same liabilities as the mine manager, but not so as to exempt the mine manager therefrom.

22. **Duties and responsibilities of mining mates.**---(1) Subject to orders of superior officials, the mining mate shall have responsible charge or control of the mine assigned to him by the mine manager or the assistant manager as the case may be.

(2) The mining mate shall take reasonable means to ensure the proper observance of the requirements of the Act, these rules and any orders made thereunder by persons under his charge and shall, as soon as practicable, report any contravention thereof to his superior official.

(3) The mining mate shall make such inspection and reports as are required by these rules and in making such examination, he shall pay particular attention to edges of the worked out area (goaf), if any, for checking supports.

(4) Except in the case of a mine working in a continuous succession of shifts, mining mate shall, on completion of the first inspection of the district, proceed to the station appoint and instruct all persons as to their places of work and as to any special precautions necessary to be observed by them.

(5) If the mining mate finds any person in a place other than the one assigned to him, he may order such person to be out of the mine, and shall forthwith report the matter to his superior official.

(6) The mining mate shall ensure that no inexperienced person is employed on any work except under the supervision of an experienced person.

(7) The mining mate shall see that all travelling roadways to, and working places in, his mine are made and kept secure.

(8) The mining mate shall report to his superior official any deficiency in timber, appliances and other necessaries required for the safe working of the mine.

(9) Where either of the two ways affording means of egress from ~~the mine to~~ the surface is not ordinarily used for travelling, the mining mate shall travel, once at least in every three days, the whole of such way in order to make himself thoroughly acquainted with the same.

(10) If the mining mate observes any dangerous place during the course of his inspections or if any danger at a place where work persons are employed is reported to him, he shall, if the danger cannot be removed forthwith withdraw all persons from such place and shall not leave the place until the danger has been removed in his presence or all approaches to the place have been fenced off so as to prevent persons from inadvertently entering such place.

(11) The mining mate shall take care that any dangerous operation is carried out with due precaution and in such cases shall be present throughout whenever any work of clearing falls of ground and setting of supports therein is being carried out.

(12) The mining mate shall cause the entrance to every place which is not in actual use or in course of working or extension, to be fenced across the whole width, so as to prevent persons from inadvertently entering such place.

(13) If the mining mate finds any accumulation of gases, he shall not remove such accumulation until he has received instructions in that behalf from his superior official.

(14) The mining mate shall, on receipt of information of an accident to any person in his mine, proceed at once to the place of accident, inspect the place and, if required, supervise the rescue operations, and shall report or send notice of the accident to the mine manager or assistant manager, as the case may be.

(15) The mining mate shall devote the whole of his time to his duties and shall not leave the mine under his charge until the end of the shift or until relieved by a duly appointed substitute.

(16) If the mine is worked by a continuous succession of shifts, the mining mate shall, before leaving his mine, confer with the sirdar or competent person succeeding him, and shall acquaint him with all matters requiring his personal attention and give him such other information as may be necessary for the safety of his mine and of the persons employed therein.

23. Duties of mine sirdar.---(1) The mine sirdar shall strictly observe the following provisions, namely:

- (a) subject to the orders of superior officials, he shall have charge and control of the mine assigned to him by the mine manager or the under-mine manager or assistant mine manager;
- (b) he shall take reasonable means to ensure the proper observance of the requirements of the Act and of the rules and orders made thereunder by persons under his charge and shall, as soon as practicable, report any contravention thereof to his superior official;
- (c) he shall make such inspection and reports as are required by these rules and in making such inspection, he shall pay particular attention to edges of the worked out area or goaf, if any, for checking supports and presence of gas;
- (d) except in the case of a mine working in a continuous succession of shifts, he shall, on completion of the first inspection of mine, instruct all persons as to their places of work and as to any special precautions necessary to be observed by them;
- (e) if he finds any person in a place other than the one assigned to him, he may order such person immediately out of the mine, and shall forthwith report the matter to his superior official;
- (f) he shall ensure that no inexperienced person is employed on any work except under the supervision of an experienced person;
- (g) he shall see that the roof and sides of all travelling roads and working places in the mine are made and kept secure;

- (h) where the height of any working place in the mine in his charge measured from floor to roof exceeds three meters, he shall see that there are kept at convenient places in the mine;
 - (i) a suitable wooden bunt or pole by which all parts of the roof may be effectively tested by a person standing on the floor; and
 - (ii) a ladder of suitable length; and
- (i) he shall report to his superior official any deficiency in timber, appliances and other necessaries required for the safe working of the mine.

(2) Where either of the two ways affording means of egress from the surface is not ordinarily used for travelling, the mine sirdar shall travel, once at least in every seven days, the whole of such way in order to make himself thoroughly acquainted with the same.

(3) The mine sirdar shall see that no timber support is withdrawn except by means of safety prop-withdrawer.

24. Duty of mine sirdar in case of danger.---(1) If the mine sirdar observes any dangerous place during the course of his inspections or if any danger at a place where work persons are employed is reported to him, he shall, if the danger cannot be removed forthwith, withdraw all persons from such place and shall not leave the place until the danger has been removed in his presence or all approaches to the place have been fenced off so as to prevent persons from inadvertently entering such place.

(2) The mine sirdar shall take due precautions and be present throughout whenever any work of clearing falls of ground and setting of supports therein is being carried out.

(3) The mine sirdar shall cause the entrance to every place which is not in actual use or in course of working or extension, to be fenced across the whole width, so as to prevent persons from inadvertently entering such place.

(4) If the mine sirdar finds any accumulation of inflammable or noxious gases, he shall not remove such accumulation until he has received instructions in that behalf from his superior officials.

25. Duty of mine sirdar in case of accident.---(1) The mine sirdar shall, on receipt of information of an accident to any employee in his mine, proceed at once to the place of accident, inspect the place and if required, supervise the rescue operations, and shall report or send notice of the accident to the mine manager or under-mine manager or assistant mine manager.

(2) It shall devote the whole of his time to his duties and shall not leave the mine under his charge until the end of the shift or until relieved by a duly appointed substitute.

(3) If the mine is worked by a continuous succession of shifts, the mine sirdar shall, before leaving his mine, handover the charge to the person succeeding him and shall acquaint him with all matters requiring his personal attention and give him such other information as may be necessary for the safety of his mine and of the persons employed therein.

26. Duties of blaster/shot-firers.---The blaster/shot-firer shall-

- (a) carry out his duties in accordance with the provisions of the Act and these rules or any order made thereunder with respect to the transport and use of explosives;
- (b) be responsible for the observance by his assistants, if any, of such provisions and of any direction with a view to safety which may be given to them by a superior official; and
- (c) not hand over any explosives to any unauthorized person.

27. Duties of timber man.---The timber man shall-

- (a) carry out the orders of the mine manager, under-mine manager or assistant mine manager, over man, sirdar or other competent person with respect to the securing of roofs and sides;
- (b) at once report to the mine sirdar or other competent person any shortage of timber in the mine; and
- (c) be responsible to see that wood-cutting pieces are not left in any working below ground.

28. Duties of attendants of mechanical ventilators.---The attendants of the main mechanical ventilator shall-

- (a) keep the ventilator running at the speed fixed by the ~~mine manager~~;
- (b) examine the machinery and observe the pressure recorded or water gauge and the speed indicator at intervals of not more than one hour, and shall, enter the readings of the indicator in a bound-paged book kept for the purpose at the fan-house;
- (c) immediately report to his superior official any stoppage of, damage to, or defect or derangement in the machinery or any unusual variation in the water-gauge or other indicators;
- (d) immediately report to his superior official any unusual circumstances in regard to mine ventilation which may come to his notice; and
- (e) where the ventilator is continuously operated he shall not leave his post until received by a duty appointed substitute.

29. Duties of lamp-room in-charge.---The person in charge of a safety lamp-room shall-

- (a) be responsible for ensuring that all lamps in the safety lamp-room are properly maintained in accordance with the provisions of these rules;
- (b) see that the safety lamp-room is kept in a neat and tidy condition;
- (c) see that all damaged and defective gauges, glasses and other parts of safety lamps are not kept or stored in such room;
- (d) see that fire-extinguishers or other means of dealing with fires provided in the safety lamps-room are in good condition and readily available for use;
- (e) see that all records required by the rules for the issue, return and maintenance of safety lamps are properly maintained; and
- (f) carry out such other duties as have been prescribed in that behalf under these rules or order made thereunder.

30. Duties and responsibilities of surveyor.---(1) The surveyor shall-

- (a) make such accurate surveys and leveling, as the mine manager may direct or as may be required by the Act or by the rules or orders made thereunder; and
- (b) be responsible for the accuracy of any plan and section, or tracings thereof, that has been prepared and signed by him.

(2) The surveyor shall record in a bound-paged book kept for the purpose-

- (a) the full facts when working of the mine has approached ~~to about~~ seventy five (75) meters from the mine boundary or from disused or water-lodged working;
- (b) any doubt which may exist concerning the accuracy of the plans and sections prepared under these rules; and
- (c) any other matter relating to the preparation of the plans and sections that he may like to bring to the notice of the mine manager.

(3) Every entry in the book shall be signed with date by the surveyor and countersigned with the date by the mine manager.

(4) Nothing in sub-rule (2), shall absolve the owner, agent or mine manager of his responsibility under the Act and rules or orders made thereunder.

31. Duties of engineer.---The engineer or other competent person appointed for the purpose shall-

- (a) subject to the orders of the mine manager and other superior officials, hold general charge of all machinery at the mine and shall be responsible for the proper installation, maintenance and safe working of such machinery;
- (b) see that it is given a trial run before it is put into use by any machinery shifted or newly installed and shall be present during every such trial run;
- (c) be present throughout whenever any work of installing, changing or recapping of any winding rope or of installing, changing or annealing any suspension gear, is being carried on;
- (d) see that the provisions of the Act and of the rules or orders made thereunder relating to the installation, maintenance, operation or examination of machinery are properly carried out by him or by his subordinate officials, competent persons or work persons, as the case may be, appointed for the purpose; and
- (e) examine all reports, registers and other records relating to the installation, maintenance, operation or examination of machinery required to be made or kept in pursuance of the Act, these rules or any other rules or orders made under the Act and shall countersign the same with date.

32. **Duties of the winding engineman.**---(1) At the beginning of his shift, the winding engineman shall examine the engine brakes and all appliances in his charge and shall satisfy himself that they are in good working order.

(2) Every winding engineman shall, during his shift, keep the winding engine and apparatus connected therewith properly cleaned and oiled and shall ensure that the engine room is clean and free of inflammable material.

(3) The winding engineman shall immediately report in writing to engineer or the competent person appointed for the purpose any defect which he has noticed in the engine brake, indicator, drum, rope or other appliances under his charge.

(4) The winding engineman shall not allow any unauthorized person to the engine room or in any way to interfere with the engine.

(5) The winding engineman shall thoroughly acquaint himself with and carefully attend to the code of signals specified in rule 46 and shall not start the engine until he has received the proper signal to do so. If the signal is indistinct he shall not start the engine until it has been repeated and he clearly understands it.

(6) The winding engineman shall avoid jerk in starting, running and stopping the engine and shall cause the cage or other means of conveyance to be brought gently to rest at any stopping place.

(7) While persons are being lowered or raised in the shaft, the winding engineman shall not drive the engine at a speed higher than that fixed by the mine manager for man-riding purposes and approved by the Inspector concerned.

(8) The winding engineman shall not un-clutch the drum of his engine until he has assured himself immediately beforehand by testing the brake of the drum against the full power of the engine that the brake is in proper condition to hold the load suspended from the said drum. When the drum is un-clutched, he shall use the brake only for the purpose of maintaining such drum stationary and shall not lower men or materials from an un-clutched drum.

(9) The winding engineman shall on no pretext leave the handle or brake whilst the engine is in motion or while persons are riding a cage or other means of conveyance in the shaft.

(10) The winding engineman shall not leave the engine whilst persons are at work in the shaft. Whenever he has occasion to leave the engine, he shall cut off the power and secure the drums with the brake.

(11) The winding engineman of a winding engine by which persons are lowered or raised in a shaft, shall not leave the engine at the end of his shift unless all the persons have come out of shaft or unless relieved by a duly appointed substitute.

33. **Duties of haulage attendants, etc.**---(1) At the beginning of his shift, the haulage engineman shall examine the engine, its brake and all appliances in his charge and shall satisfy himself that they are in good working order.

(2) The haulage engineman shall, during his shift, keep the haulage engine and apparatus connected therewith properly cleaned and oiled and the engine-room clean and free of inflammable material.

(3) The haulage engineman and brakeman shall report immediately to the mine manager, engineer or other competent person appointed for the purpose, any defect which he has noticed in the engine, brake, drum, rope or other appliances under his charge.

(4) Whenever the haulage driver has occasion to leave the engine, he shall cut off the power and secure the engine with the brake.

(5) The haulage engineman, brakeman and signaler shall not allow any unauthorized person to enter the engine-room or in any way to interfere with the engine or signal, as the case may be.

(6) Every haulage engineman, brakeman and signaler shall thoroughly acquaint himself with, and carefully attend to, the prescribed code of signals. The haulage engineman shall not start the engine until he has received the proper signal to do so. If the signal is indistinct, he shall not start the engine until it has been repeated and he clearly understands it.

(7) The person in charge at the top of any haulage plane or incline shall see that the stop-block are blocking the way, before allowing any tub to be brought on to the top landing and shall cause the tubs to be securely coupled up to each other and to the rope or chain, before the stop-block is opened. In case any alternative safety appliance is provided, he shall cause the same to be brought into use on every such occasion.

(8) The person, who is responsible for the attachment to the haulage rope of any tub or set of tubs at any stopping place on any haulage plane or incline, shall see that no person remains in a position of danger at or near such stopping place while the rope is in motion.

(9) The person in-charge of any tubs or set of tubs, which it is intended to send up any haulage plane or incline on which drags or back-stays are required to be used, shall securely fix the drag or back-stay or cause it to be so fixed, before such tub or set of tubs is set in motion.

(10) The person in charge at the top or bottom of the incline shall see that no unauthorized person rides on any tub.

(11) Before a train of side-tripping tubs is set in motion, the person in charge shall see that the safety catches of all such tubs are properly secured.

34. Duties of locomotive drivers.---(1) The locomotive driver shall, before commencing work in his shifts, ensure that the audible signal and the brakes of the locomotive are in proper working order.

(2) The locomotive driver shall not work on locomotive except during hours of daylight, unless the locomotive is fitted with sufficient headlights as may be determined by the Chief Inspector.

(3) The locomotive driver shall immediately report to the engineer or other competent person appointed for the purpose any defect which he has noticed in the locomotive or any part or fitting thereof.

(4) The locomotive driver shall not set the locomotive in motion until audible warning has been given by him to persons whose safety may be endangered. He shall also give the audible warning when the locomotive is approaching a level crossing or any place where any person is at work or where the driver's sight is intercepted.

(5) The locomotive driver shall not leave a locomotive unattended away from the places where it is housed unless he has ensured that it cannot be set in motion by any unauthorized person.

(6) The locomotive driver shall ensure that no unauthorized person drives, handles or raised on locomotive.

(7) When tubs are being pushed in front of the locomotive, the shunter shall accompany the leading tub.

35. Duties of coal-cutting and loading machine drivers and fitters.---(1) Where a machine is required to work on a gradient exceeding 1 in 5, an effective to prevent the machine running back shall be provided and used.

(2) No coal-cutting or loading machine shall be fitted or otherwise moved with the cutting or loading tool in motion, except in the actual process of cutting or loading. If the cutting or loading tool, as the case may be, cannot be locked out of gear securely, it shall be removed before fitting is started.

(3) No person shall make any repair or adjustment to a coal-cutting or loading machine or shall put in or take out a pick, until he has made such arrangements as shall prevent the machine being inadvertently put into motion while such operation is being performed.

(4) No person shall open or replace the cover of any electrical part of coal-cutting or loading machine, except under the supervision and in presence of an engineer, electrician or other competent person appointed for the purpose.

(5) The coal-cutting or loading machine driver shall not leave the machine unless he has completely cut off the power and has assured himself that the moving parts of the machine shall not be inadvertently set in motion.

36. Duties of magazine in-charge.--- Every magazine in-charge shall-

- (a) subject to the orders of superior officials, be responsible for the proper receipt, storage and issue of explosives in and from the magazine;
- (b) record in a bound-paged book kept for the purpose, the names of various competent persons, and the quantity and nature of explosives issued to each of them; and shall similarly record the quantity and nature of explosives returned to the magazine by each such person;
- (c) securely lock each canister before issuing it to the competent persons and shall also check whether the canister is returned to the magazine in locked condition; he shall not issue explosives in any canister which is not in proper repair or which cannot be securely locked;
- (d) not allow any unauthorized person to enter the magazine;
- (e) if he discovers any shortage of explosives in the magazine he shall forthwith inform the mine manager in writing; and
- (f) perform such other duties as have been prescribed in that behalf under the Act and the rules or any order made thereunder.

37. Duties of register keeper and attendance clerk, etc.---(1) Every person appointed to keep registers or other records required by or under the Act and the rules or any orders made thereunder, or to make entries therein, shall make the necessary entries in ink and with reasonable dispatch.

(2) During the whole time that persons are at work, the attendance clerk shall remain on duty at the mine office which shall be provided near the workplaces, or in case of workings below ground, near the outlet used by the work persons to enter and leave such workings.

(3) No person who is not an employee of the mine or is not entitled to enter the mine under the Act and the rules or orders made thereunder, or is not so authorized by the mine manager, shall enter the mine. It shall be the duty of the attendance clerk to see that no such person enters the mine. If any such person forcibly enters the mine, the attendance clerk shall immediately report the matter in writing to the mine manager.

(4) If after the commencement of a shift, any official or a competent person has not got his attendance recorded in the register maintained for the purpose, the attendance clerk concerned shall, within two hours after the commencement of the shift, report the fact in writing to the mine manager or the under-mine manager or other official in charge of the shift.

38. Qualification of certain persons.---(1) Every person employed underground in a mine as an official subordinate to the mine manager and superior to the underground sirdar, shall hold a Diploma of Associate Engineer in Mining Technology or a Mine manager's Certificate granted under the Khyber Pakhtunkhwa Conduct of Examination Rules.

(2) No person shall be employed as a surveyor in a mine unless he holds a surveyor's certificate granted under the Khyber Pakhtunkhwa Conduct of Examination Rules.

(3) No person shall be employed as a winding engine man unless he has attained the age of twenty one (21) years and the mine manager or some competent person appointed by the mine manager for the purpose shall, before appointing any such person, satisfy himself that such person is competent to perform the duties assigned to him.

CHAPTER-IV SHAFTS AND OUTLETS

39. Mine to be provided with shafts and outlets.---(1) No person shall be employed or be permitted to enter or remain for the purpose of employment, in any mine unless the mine is provided with at least two shafts or outlets-

- (a) with which every seam for the time being at work has a communication so to afford separate means of ingress and egress to the persons employed in seam; and
- (b) which are under the sole control of the mine manager.

(2) Such shafts or outlets shall be not less than 13.7 meters distant from one another at any point, and each shall be connected with the other by means of a communication not less than 1.2 meters high and 1.4 meters wide.

40. Arrangements to be made for persons who descends to or ascends from a mine.---(1) Proper arrangements shall be made for the persons to descend to and ascend from the mine at each of shaft, outlet or steep travelling roads.

(2) If the slope of a coal seam varies from one (1) vertical to four (4) horizontal to one (1) vertical to one (1) horizontal, reasonably level steps shall be provided in all the dip travelling roads leading to each outlets. Such steps shall comply with the following requirements, namely:

- (a) its breadth shall not be less than two feet;
- (b) the vertical height of every step shall not exceed eight inches and the dimensions of every step measured horizontally from the edge to the back shall not be less than eight inches;

- (c) all steps shall be kept clean and in good repair; and
- (d) a rigid hand-bar shall be fixed in positions where it can be easily reached by all persons travelling on the steps to provide them with a strong hold fast.

(3) Where the slope of a seam is more than one vertical to one horizontal, the travelling roads shall be provided with ladders and platforms as means of descending to, and ascending from the mine. The platforms shall be fixed at intervals not exceeding twelve (12) meters. Ladders shall be placed so as to cover the openings in the platforms:

Provided that in cases where timber and supplies are handled, a portion of this opening may be to one side of the ladder and in the opposite corner of the platform.

(4) Except in respect of the lowest nine (9) meters of a travelling road, the ladders shall be fixed at an inclination of not less than 0.3 meter horizontal for every three (3) meters vertical:

Provided that where exceptional circumstances require they may with the consent of an inspector be fixed at steeper inclination. If apparatus is necessary it shall be kept on the work belonging to the mine and shall be constantly available for use.

(5) All platforms shall be securely fenced.

(6) All ladders and platforms shall be securely fastened to the sides of timbering of the shafts.

(7) All ladders shall project at least 0.9 meters above every platform, shaft and incline tops or strong holdfast shall be provided at these places.

(8) A ladder way which is a compartment of a shaft used about ~~for other~~ purposes shall be closed off from other compartment to such extent as will prevent injury to workman passing up and down the ladder way.

(9) Every ladder way opening in any travelling road or place where men are stationed or pass shall be provided with door or with a substantial fence.

(10) Not more than one person shall carry or be permitted to carry any drill tool or any loose materials on a ladder way in a vertical or steeply inclined shaft leading to an outlet except in so far as may be necessary in executing repairs.

(11) All ladders and platforms shall be made of best materials and kept in good condition. The breaking load of the ladders and platforms shall at no time be less than three times their working load.

(12) Where the natural strata is not safe, every working or pumping shafts and every shaft in course of being sunk, shall be securely cased, lined or otherwise made secure.

(13) Every part of a mine shall, where practicable, be provided with at least two ways affording means of egress to the surface.

(14) Where it is necessary for persons to pass from one side of a winding shaft to the other, proper provision shall be made enabling them to do without crossing the shaft.

41. Ladders and platforms to be examined before the commencement of work.---

(1) All ladders and platforms used by work-persons in a mine shall be examined not more than two hours before the commencement of work in a shift by a competent person appointed by the mine manager in writing for this purpose.

(2) The result of every such inspection shall be recorded in a book kept at the mine for the purpose.

(3) The report shall be made and signed by the persons who made the inspection and shall state the date and time of the inspection and date and time when the report was written.

42. Power of Chief Inspector to exempt any mine from the operation of rules under this Chapter.---Whenever the circumstance at any mine or part of mine are such as to render the provision of rules 40 and 41 not reasonably applicable to such mine or part of such mine, the Chief Inspector may, at his discretion grant exemption from the provisions of the above mentioned rules under such conditions as he may think fit.

43. Procedure where communication between two outlets is blocked or fenced off.---Whenever communications between the two outlets which are required to be maintained under rule 94 has been blocked or fenced off under rule 151, only such persons as are necessary to clear the obstruction or to repair the dangerous part of the communication or to make a new second outlet, shall be employed in the mine until such time as communication has been re-established or a new second outlet has been provided.

44. Provisions of rules 40, 41 and 43 not to apply to certain shafts and outlets.---The provisions of rules 40, 41 and 43 with respect to shafts and outlets shall not apply-

- (a) while a shafts is being sunk or an outlet is being made;
- (b) to any working for the purpose of making communication between two or more shafts or outlets; and
- (c) to any working for the sole purpose of searching for or proving minerals,

so long as not more than forty persons are employed underground at any one time in the whole of the different seams in connection with a single shaft or outlet.

45. Competent person to examine state of shafts.---(1) A competent person or persons of not less than twenty one (21) years of age appointed by the mine manager for the purpose shall, once at least in every week, examine the state of the shaft by which persons ascend or descend, and shall without delay write or cause to be written a full and accurate report of the result of such examination.

(2) Every such report shall be recorded in a bound paged book to be kept at mine for the purpose and shall be signed and dated by the person who made the examination.

CHAPTER-V
RAISING AND LOWERING OF PERSONS OR MATERIALS

46. Requirements for raising and lowering of persons or materials on shafts, etc.---

(1) At every shaft or incline where persons or materials are lowered or raised by means of machinery, the following requirements shall be fulfilled, namely:

- (a) a single linked chain shall not be used for lowering or raising persons except for the short coupling chain attached to a cage, skip, bucket or tub;
- (b) where the apparatus ordinary used for raising and lowering persons to or from the surface is worked by mechanical power, it shall be ensured that the shaft is vertical and exceeds 45.7 meters in depth and provided with a detaching hook. The space between the detaching hook and the detaching plate, when the cage is at normal position at the top of the shaft shall not be less than 1.8 meters where a geared winding engine is used and not less than 3.6 meters where a direct acting engine is used;
- (c) there shall be attached to every machine, worked by mechanical power and used for raising and lowering persons, one or more brakes of sufficient power by themselves to hold the cage, skip, bucket or tub, when loaded, at any point in the shaft, and a proper indicator in addition to any mark on the rope, showing to the persons who works the machine the position of cage, skip, bucket or tub in the shafts and if the drum is not on the crank-shaft, there shall be an adequate brake on the drum shaft:

Provided that in the case of a shaft not exceeding 30.5 meters in depth so much of this clause as requires shall not apply;

- (d) every apparatus on or in which persons ride in a working shaft shall be provided with a sufficient overhead except-
 - (i) in a shaft not exceeding 45.7 meters in depth where buckets or other appliances are used for winding; or
 - (ii) in a shaft in course of sinking; or
 - (iii) where persons are employed at work in shaft; and
- (e) every working shaft used for the purpose of drawing mineral or for lowering or raising persons shall, if exceeding 45.7 meters in depth, be provided with proper means of communicating distinct and definite signals from the bottom of the shaft and from every entrance for the time being in use between the surface and from the surface to the bottom of the shaft. There shall also be proper means of transmitting distinct and definite signals from the top of every winding shaft to the winding engine. All signals shall be transmitted by mechanical or electrical means.

(2) Every working shaft, except a shaft in course of sinking, used for lowering or raising persons shall, if it exceeds 45.7 meters in depth, be provided with guides.

(3) Adequate stationary lights shall be provided and used during working hours-

(a) at all places where persons have to work underground in the immediate vicinity of shafts; and

(b) after dark at the tops of all working shafts and at all winding engines used for raising and lowering persons and in particular at all such engines where electric lighting is used and additional light having no connection with the electric supply shall be kept burning at night.

(4) There shall be on the drum of every machine used for lowering or raising persons such flanges, horns or other appliances as may be sufficient to prevent the rope from slipping. The rope shall be securely fastened round an arm of the shaft of the drum and there shall be at least two turns of the rope on the drum, when the cage, skip, bucket or tub is at the bottom of the shaft. After any stoppage of winding for more than two hours, the cage, skip, bucket or tub shall, before any person is allowed to ride therein be run a complete trip up and down the working portion of the shaft shall be examine at least once to ensure that everything is in good working order.

(5) Every cage shall be provided with catches or some other suitable contrivance to prevent tubs from falling out, and shall, if used for lowering or raising persons, be covered in completely at the top and closed in at the two sides in a manner sufficient to prevent persons or things from projecting beyond the sides and shall provide with suitable gates or other rigid fences and with a rigid band bar fixed in a position where it can be easily reached by all persons in the cage.

(6) A competent person or persons, of not less than twenty one (21) years of age, appointed by the mine manager for the purpose shall, once at least in every twenty four hours, examine the state of the external parts of the machinery and ~~of the head-gear,~~ ropes, chains, cages, guides and conductors in the shafts and other similar appliances of the mine which are in the actual use both underground and above ground and shall, without delay, write or cause to be written a full and accurate report of the result of such examination. Every such report shall be recorded in a paged book to be kept at the mine for the purpose and shall be signed and dated by the person who made the examination.

47. **Principal signals.**---(1) The first three or principal signals shall be-

One rap	.....RAISE when engine at rest.
One rap	.....STOP when engine in motion
Two raps	.....LOWER
Three raps	.....MEN ready to ascend or descend.
Three raps	.....In reply. Men may enter the cage or other conveyance.

(2) Any other signals shall be in addition to, and shall not interfere with, the foregoing signals.

(3) A printed copy of the code of shaft signals shall be posted at both top and bottom and at every inset and also at the winding engine.

(4) No person other than the banks man or on-setter shall give any signal unless he is an official of the mine or is authorized in writing by the mine manager to give signals.

48. Precautions when riding a cage, tub, bucket or shaft, etc.---(1) No person shall get on or off a cage, skip, tub or bucket used for lowering or raising persons after the same has been set in motion or leaves it until it has reached the appointed stopping place nor shall any person ride on the top or edge of any cage, skip, tub or bucket except when engaged upon.

(2) No person shall ride in a shaft on, or against, a loaded cage, skip, tub or bucket.

(3) Every person, when at or about the top or the bottom of a shaft, shall obey the orders and directions of the shaft attendants on duty at the time.

(4) Not more than such number of persons as may be authorized by the mine manager shall be allowed to ride in the same cage, tub, skip or bucket at one time and a notice specifying the authorized number shall be posted at the top of every shaft and at every inset in a shaft.

(5) No person under eighteen (18) years of age shall descend or ascend a shaft in a cage, tub, skip or bucket unless accompanied by at least one person over 18 years of age.

(6) When the winding apparatus is not provided with some automatic contrivance to prevent over winding, a point shall be fixed and marked on the indicator in such a way as to show when the cage or other conveyance is within a distance of twice the circumference of the drum from the completion of the wind and when such cage or conveyance has reached such distance it shall not, if either it or the descending cage contains persons, be raised for the remaining distance at a speed exceeding 4.8 kilometers per hour.

49. Shafts, cages, buckets etc. to be kept in good repair.---(1) All cage chains in general use shall be annealed, all detaching hooks shall be cleaned and re-fitted, and all winding ropes shall be re-capped, once at least in every six months, or, if necessary, at shorter intervals.

(2) The date of each such operation shall be recorded in a book kept at the mine for the purpose.

CHAPTER-VI
ROADS AND WORKING PLACES

50. Roads and sides to be kept secure.---The roofs and sides of all working places and travelling roads, including airways and travelling roads to second outlets, shall be made and kept secure.

51. Artificial support to roofs.---(1) In any mine or part of a mine where the roof is of such a nature as to require artificial support, an Inspector, after consultation with the mine manager, may require such support to be systematic and may give notice to that effect to the mine manager, who shall, by notices posted in conspicuous places at the mine, specify the manner in which supports are to be set and advanced and the maximum intervals-

- (a) between each row of props;
- (b) between adjacent props in the same row;
- (c) between the front row of props and the face; and
- (d) between chocks or cogs.

(2) The mine manager and his subordinate shall be responsible for securing effective compliance with the terms of the notices and no such mines shall be worked in contravention of these terms.

52. Open workings.---(1) In open workings, the overburden and all loose ground and material shall be removed sufficiently far from the edge, or otherwise made secure in such a manner as to prevent danger to persons employed in the mine.

(2) The sides of open working shall be sloped, stepped or secured, in such a manner as to prevent from falls of materials.

(3) When an open working is worked in steps, the steps shall be of sufficient breadth in comparison with their height to secure safety.

53. Requirements of foot paths in open working.---Every footpath along which loads are carried in open working, by human, shall comply with the following requirements, namely:

- (a) its breadth shall not be less than 0.91 meter;
- (b) its slope shall be greater than one (1) vertical to two (2) horizontal; and
- (c) at every place where its slope exceeds one (1) vertical to four (4) horizontal reasonably level steps shall be provided so that the vertical height of every step does not exceed 17.8 centimeters and the dimension of every step measured horizontal from the edge to the back is not less than 35.5 centimeters.

Explanation: Gang-planks used for loading wagons shall not be deemed to be part of a footpath for the purpose of this rule:

Provided that every gang-plank shall be so inclined and constructed as to give a secure foothold.

54. Weight of loads not to involve risk of injury.---Where any person is employed in carrying loads, the weight of the loads and the height and distance to which they have to be carried shall not be such as to involve risk of injury to the health of such person. If any dispute arises as to whether risk of injury to health is involved the decision of the Chief Inspector shall be final.

55. Inspection of mine before commencement of work.---(1) For the purposes of inspection before the commencement of a period of work constituting a shift at a mine, one or more stations shall be fixed by the mine manager at the entrance to the mine or to different parts of the mine, as they may require, and no workman shall pass beyond any such station until the part of the mine beyond that station has been examined and reported to be safe in the manner hereinafter provided.

(2) A competent person or persons, having the prescribed qualifications and appointed by the mine manager, shall within such time, not exceeding two hours before the commencement of work in a shift, as may be fixed by the Act or the rules made thereunder, inspect every part of the mine situated beyond the station or each of the stations fixed by the mine manager, in which work persons are to work or pass during the shift, and all working places in which work is temporarily stopped and the edges of all goaf within and ventilating district in which persons have to work, and shall ascertain the condition thereof so far as the presence of gas, ventilation, roof and sides and general safety are concerned. The result of every such inspection shall be recorded in a book kept at the mine for the purpose.

(3) A like inspection shall be made at least twice in the course of each shift and at least once in every five hours during which the shift continues, of all parts of the mine which are situated beyond the stations or each of the stations aforesaid and in which work persons have to work or which they have to traverse during that shift but it shall not be necessary to record the result of such inspection in a book unless the last inspection in a shift is the inspection required to be made under sub-rule (2).

(4) The Inspection shall be made with an approved inflammable locked flame safety lamp and no additional light shall be used other than an approved electric torch or lamp:

Provided that in the case of a mine in which inflammable gas has never been found, the inspection except in the region of an underground fire or of any stoppings made to control a fire, may be made with any electric torch if it is used in conjunction with an open light or an approved locked flame safety lamp.

(5) In any inspection in the region of an underground fire or of any stoppings made to control a fire, gas detector detecting carbon monoxide gas approved by the Chief Inspector shall be carried.

(6) Every report referred to in sub-rule (2) shall be made by the person inspecting, either when underground or immediately on his return to the surface and shall be a full and accurate report of the inspection specifying whether or not and where if anywhere noxious or inflammable gas was found and whether or not any and, if any, what defects in roof or sides and other sources of danger were observed. The report shall be signed by the person who made the inspection and shall state the date and time of the inspection and the date and time when the report was written.

(7) The report of a mine or mines assigned to a competent person under this rule shall not be of such a size nor shall any duties which may be assigned to him other than his duties under this rule be such, as to be likely to prevent him from carrying out such last mentioned duties in a thorough manner. If any question arises whether the part of a mine or mines assigned to him are too great, the decision of the Chief Inspector shall be final.

(8) A competent person or persons appointed by the mine manager shall inspect all airways and travelling roads leading to second outlets at least once a fortnight and shall record the result of his inspection in a book kept at a mine for the purpose.

56. Inspection of mine after discontinuance of mining for certain period.---(1) The first inspection of a mine or part of a mine which is re-opened after a discontinuance of mining for a period exceeding seven days and of any part of a mine after being dewatered, shall be made by a person possessing the qualifications prescribed in sub-rule (1) of rule 59 with an approved locked flame safety lamp.

(2) No additional light shall be used in any such inspection other than an approved electric torch or lamp.

(3) The result of every such inspection shall be reported by the person making it in the manner required by sub-rule (6) of rule 55 and shall be recorded in the book maintained in accordance with sub-rule (6) of rule 55.

57. Inspection of mine where inflammable gas has been found.---(1) In any mine in which inflammable gas has been found during the previous twelve months, all unused workings in which inflammable gas may accumulate and which are not permanently sealed off shall at least once in every week be inspected for the presence of inflammable gas by the competent person appointed under sub-rule (2) of rule 55.

(2) The inspection shall be made with an approved locked flame safety lamp and no additional light shall be used other than approved electric torch or lamp.

(3) The result of every such inspection shall be reported by the person making it in the manner required by sub-rule (6) of rule 55 and shall be recorded in the book maintained in accordance with sub-rule (2) of that rule.

(4) Nothing in this rule shall be construed to affect the provisions of rule 55.

58. Arrangements for sealed off fire area in mines.---At every sealed off fire area in any mine and at every goaf or area of old workings isolated by stoppings in any mine in which safety lamps are required to be used in compliance with rule 139, arrangements shall be made to ascertain from time to time the atmospheric conditions behind the stopping:

Provided that this rule shall not apply-

- (a) to area in a mine which is isolated by stoppings capable of resisting the force of an explosion; or
- (b) to any mine or part of a mine where in the opinion of the Chief Inspector, special difficulties exist which make compliance with the provisions of this rule not reasonably practicable.

59. Qualified persons to be appointed for inspection under rule 55.---(1) No person shall, save as hereinafter provided, be appointed to make any inspection required by rule 55 unless he-

- (a) has within the preceding five years obtained a certificate from an authority and in a form to be prescribed by the Board of Examiners constituted under the Act to the effect that his powers of eye sight and hearing are such as to enable him to make the inspection efficiently; and
- (b) holds a mine manager or a Sirdar's Certificate or a mine manager's permit or is for the time being authorized under sub-rule (1) of rule 17 to act as mine manager of the mine in which the inspection is to be made:

Provided that the holder of a Sirdar's Certificate shall not be appointed to make any such inspection in a mine in which safety lamps are used or in which inflammable gas is likely to occur unless his certificate bears an endorsement to the effect that he is competent to test for and detect the presence of inflammable gas.

(2) Where an emergency exists, the mine manager of a mine in order to ~~make~~ the inspection required by rule 55 may appoint any person who in his opinion is competent to make such inspection notwithstanding the fact that such person does not possess the qualifications prescribed in sub-rule (1):

Provided that such appointment shall not exceed over a period exceeding one month:

Provided further that every such appointment and the reasons therefor shall forthwith be reported to the Chief Inspector. The Chief Inspector may cancel any appointment so made and such cancellation shall be final.

60. Procedure when mine is found to be dangerous.---(1) If at any time it is found by the person, for the time being in charge of a mine or any part thereof, that by reason of any cause whatever, the mine or a part thereof is dangerous, every workman shall be withdrawn from the mine or a part thereof and a competent person appointed by the mine manager for the purpose shall inspect the mine or a part thereof.

(2) The person so appointed shall make a full and accurate report of the condition of the mine or a part thereof and no workman shall, except in so far as is necessary for enquiring into the cause of the danger or for the removal thereof or for exploration be re-admitted into the mine or a part thereof, until the mine or a part thereof is reported by the person so appointed not to be dangerous.

(3) Every report made under sub-rule (2) shall be recorded without delay in a bound paged book, which shall be kept at the mine for the purpose and shall be dated and signed by the person who made the inspection:

Provided that,-

- (a) where the danger arises from the presence of inflammable or noxious gas, the provisions of rule 61 shall be followed; and
- (b) where the appearance in any part of a mine of smoke or other sign indicates that a fire has or may have broken out, the provisions of rule 86 shall be followed.

61. Procedure when inflammable or any noxious gas is detected.---(1) When an inflammable gas or any noxious gas is detected in any working place of any part of a mine, all persons shall be withdrawn from the place or part and the place or part shall be immediately fenced off so as to prevent persons inadvertently entering the same. The officials in charge of the district in which the gas has been detected shall take steps, without delay, to remove the gas by improving the ventilation and shall send a report of the occurrence to the mine manager.

(2) During the removal of such gas no naked light shall be used in the ventilating district in which the gas is detected and all persons, except those necessary for such removal, shall be withdrawn from the return side of the ventilating district unless the quantity of gas is in the opinion of the mine manager or other responsible official in charge of mine in the mine manager's absence, so small that such withdrawal of person is unnecessary.

(3) No workman shall be re-admitted into the place or part referred to in sub-rule (1), until a competent person appointed by the mine manager for the purpose has inspected the place or part and has reported that the place or part is free from gas. Every such report shall be in writing and shall be dated and signed by the person who made the report.

(4) The inspection required by sub-rule (3), shall be made with an approved locked flame safety lamp and, in the case of noxious gas, also with means of detecting carbon monoxide gas approved by the Chief Inspector.

(5) Particulars of every occurrence referred in sub-rule (1), and every report submitted under sub-rule (3), shall be recorded in bound paged book, which shall be kept at the mine for the purpose and it shall be stated in the book where and when the gas was found and when it was removed.

62. Coal not to be extracted in certain cases.---(1) No coal shall be extracted from any spot which lies vertically below-

- (a) any part of the bed of any river, tank or reservoir; or
- (b) any spot lying within a horizontal distance of 15.3 meters from either bank of a river or the boundary of a tank or reservoir, except with the written permission of Chief Inspector and subject to such condition as he may specify.

(2) For the purpose of this rule, where sand or alluvium are lying in the course of a river or in a tank or reservoir the bed of the river, tank or reservoir at that point shall be deemed to coincide with the surface of the hard strata underlying such sand or alluvium.

63. Protection against eruption of water.---Where any part of a mine is so situated that there is any danger of irruption of surface water into the mine, adequate protection against such an eruption shall be provided and maintained.

64. Working near a place likely to contain an accumulation of water.---(1) Where any working has approached within 30.5 meters of any place containing or likely to contain an accumulation of water or other liquid matter, or within 30.5 meters of disused working, not being working which have been examined and found to be free from accumulation of water or other liquid matter, the working shall not exceed 2.5 meters in width or height, and there shall be maintained at least one bore-hole near the centre of the working face and sufficient flank bore-holes on each side, and where necessary, bore-holes above and below the working at intervals of not more than 4.8 meters.

(2) All such bore-holes under sub-section (1) shall be constantly maintained at sufficient distance in advance of the working and such distance shall in no case be less than 3.0 meters.

65. Work in a seam likely to contain an accumulation water.---Where work is being done in any seam or part of a seam below another seam or part of a seam which contains or may contain an accumulation of water, or where work is being done in an upper seam or part of an upper seam which is at a lower level than any part of a lower seam which contains or may contain an accumulation of water, adequate precautions shall be taken against such an eruption of water into the seam where work is being done as would be likely to endanger the lives of the workmen in the mine.

66. Flooding of mine.---(1) When the owner, agent or mine manager intends or proposes by introducing water from the surface or from any other part of the mine or from an adjacent mine, to flood any part of the working of his mine he shall give in writing, not less than seven days, notice of his intention to commence such operations to the Chief Inspector and to the management of all adjacent mines and such other mines as might be affected by such flooding:

Provided that the Chief Inspector may by order in writing-

- (a) permit such operations to be commenced on any day prior to the expiry of seven days from the receipt of notice; or

(b) require that such operations shall not be commenced until after expiry of such time not exceeding twenty days, from the receipt of notice as he may specify in this behalf.

(2) If the operations, in respect of which notice is given under sub-rule (1), are not commenced within sixty days from the expiry of the period of notice of seven days therein referred to, the notice shall be deemed to have lapsed and the provisions of that rule shall apply as if no such notice had been given.

67. **Working near the boundary of any mine property.**---(1) No working shall be made within a distance of 15.24 meters of the boundary of any mine property, or, in the case of a disputed boundary, within a distance of 12.1 meters of the boundary claimed by the owner of an adjacent mine until such time as a binding agreement has been reached as to the correct boundary or the question has been finally determined by a court of law.

(2) Notwithstanding anything contained in sub-rule (1), the Chief Inspector may, by order in writing, permit the working of any mine or part of a mine to extend to within any shorter distance than 15.24 meters of the boundary of the mine, or may require that the working of any mine or part of a mine shall not extend further than any specified distance not exceeding 30.5 meters of such boundary.

(3) The owner of any mine affected or likely to be affected by any order passed by the Chief Inspector under sub-rule (2), may prefer an appeal to the Mining Board constituted under Section-12 of the Act and the order of the Mining Board thereon shall be final.

(4) Where the workings of two adjacent mines or of any one of the two adjacent mines have approached to within a distance of 30.5 meters of the respective boundary or boundaries of each mine property, or, in case of a disputed boundary, within a distance of 30.5 meters of the boundary claimed by the owner of the adjacent mine, the owners of the two mines shall make a joint survey of the workings on either side of the common barrier and a copy of the plan showing the workings up to a date within six months shall be kept in the office at each of the mines.

68. **Dimensions of pillars and galleries in a seam.**---(1) The dimensions of pillars and galleries and the shape of pillars formed in any seam shall be such as to ensure stability during the formation of pillars, during the extraction of pillars and during the period between such formation and extraction.

(2) Save with the previous permission in writing of the Inspector concerned, no gallery in a seam shall exceed 5.8 meters in height or 4.9 meters in width.

(3) Where the pillars and stall system of working is adopted the pillars formed in any seam shall normally be rectangular in shape.

(4) The distance between the centers of any two adjacent pillars left in a seam shall not be less than that specified in the table below as corresponding to the depth of the seam from the surface and the average width of the galleries in the workings in question.

TABLE

Depth of seam from surface	Where the average width of the galleries does not exceed 3.0 meters, the distance between centers of adjacent pillars shall not be less than meters	Where the average width of the galleries does not exceed 3.6 meters, the distance between centers of adjacent pillars shall not be less than meters	Where the average width of the galleries does not exceed 4.2 meters, the distance between centers of adjacent pillars shall not be less than meters	Where the average width of the galleries does not exceed 4.8 meters, the distance between centers of adjacent pillars shall not be less than meters
Not exceeding 61.0 meters	12.1	15.0	18.3	19.8
Exceeding 61.0 meters but not exceeding 91.5 meters	13.7	16.8	19.8	70.0
Exceeding 91.5 meters but not exceeding 152.5 meters	16.8	19.8	22.8	25.9
Exceeding 152.5 meters but not exceeding 244.0 meters	22.8	25.9	30.5	35.0
Exceeding 244.0 meters	28.9	35.0	39.6	45.7

Provided that the Chief Inspector may, in the case of any particular seam or mine, by order in writing and subject to such conditions as he may specify, vary the distance specified in the table above.

(5) Nothing in sub-rules (2) and (3), shall apply to workings in a mine made before the coming into force of this rule. In such workings, the following provisions shall apply, except in depillaring operations, namely:

- (a) if the distance between the centers of adjacent pillars are smaller than those specified in the table mentioned in sub-rule (4), the pillars shall not be further reduced;

- (b) if the distance between the centers of adjacent pillars are not smaller than those specified in the table appended to sub-rule (4), the pillars shall not be so reduced as to render those distances smaller than-
- (i) the distance so specified; or
 - (ii) any distance required in this behalf by the Chief Inspector;
- (c) if the height or width of a gallery exceeds the figure specified in the table to sub-rule (4); and
- (d) if the height or width of a gallery is less than the figure specified in sub-rule (2), it may be increased only to the extent so specified or to such extent as may be permitted by an Inspector in writing.

(6) In the case of all workings, where in the opinion of an Inspector, the dimensions of pillars or galleries are such as to render it likely that crushing of pillars or the premature collapse of any part of the workings shall occur either before or during the extraction of pillars, he may by order in writing require such modification of these dimensions in respect of any future working as he shall specify.

69. **Extraction of pillars.**---(1) The extraction of pillars shall be conducted in such a way as to prevent as far as possible the extension of collapse or subsidence of the goaf over pillars which have not been extracted and adequate timbers or other supports shall be used where necessary:

(2) Save as provided by sub-rule (3), no pillars shall be reduced or split in such a manner as to reduce the dimensions of the resultant pillars below those required by the rule 68 or by any order passed thereunder nor shall any gallery be so heightened as to exceed the height required by or under rule 68.

(3) During the systematic extraction of pillars no splitting or reduction of pillars or the heightening of galleries shall be affected for a greater distance than the length of two pillars ahead of the pillars that is being extracted or from the point at which pillar extraction is about to begin.

(4) The Inspector concerned may by order in writing relax the provisions of sub-rule (2) and (3), in respect of any specified workings to such extent and on such conditions as he may specify in the order.

70. **Enlargement of any gallery for haulage, ventilation or drainage etc.**---Nothing in rule 68 or rule 69 shall prevent the driving of any gallery through any pillar or the enlargement of any gallery beyond the limit prescribed by or under these rules when in the opinion of the mine manager such work is necessary for haulage, ventilation, drainage or any other purpose necessary for the proper working of the mine, if a week's previous notice of the intention to undertake such work has been sent to the Chief Inspector and the Inspector concerned.

71. **Crush or collapse of pillars.**---Whenever crush of pillars or any symptoms of impending collapse other than that ordinarily caused by pillar extraction is detected, the owner, agent or mine manager of the mine shall inform the Chief Inspector and the Inspector concerned forthwith.

72. **Procedure for collapsing of roof.**---Where the method of extraction is to remove all the coal or as much of the coal as is practicable and allow the roof to fall in operations shall be conducted in such a way as to leave as small an area of un-collapsed roof and, where practicable, means shall be taken to bring down the roof at regular intervals.

73. **Working in two or more seams or sections of a seam in a mine.**---(1) In any mine in which two or more seams or sections of a seam are close to each other, the pillars in the one seam or section, shall, where the strata are not highly inclined, be as far as practicable, vertically above or below the pillars in the other seam or section.

(2) No seam shall be worked in more than one section without the permission in writing of the Chief Inspector and under such conditions, as he may specify, for ensuring the stability and safety of the workings.

(3) Every application for permission under sub-rule (2), shall be accompanied by a plan showing the proposed layout of the workings, the thickness of the seam, the depth of the seam from the surface, the rate and direction of dip, the dimensions of pillars and galleries in each section and the thickness of the parting between the sections.

(4) Where a seam in a mine is worked in two or more sections every such section shall be deemed to form a separate seam and the parting left between any two such sections or between the workings made in any two seams in the mine which are closed to each other, shall not be less than 3.0 meters in thickness:

Provided that an Inspector may by order in writing-

- (a) permit a smaller thickness of parting, if he is of opinion that the stability of the workings shall not be affected thereby; or
- (b) require a greater thickness of parting if he is of opinion that such greater thickness is necessary for the safety of the workings.

74. **Procedure when certain provisions of Chapter-VI not complied with.**---If in any mine, it appears to an Inspector, authorized in this behalf in writing by the Chief Inspector, that the provisions of rules 68, 69 or 73 or any order issued under any of the rules referred above have not been complied with, he may give notice in writing to the owner, agent or mine manager requiring him to take such protective measures within such reasonable time, as he may specify in the notice, and in case of non-compliance, the Inspector may, by order in writing addressed to the person to whom the notice was given, prohibit the extraction of coal in the part or parts of the mine in which protective measures are required to be taken until the requirements specified in the notice are complied with to his satisfaction.

75. **Prevention of outbreak of fire, inundation of water or collapse of workings in mine.**---(1) Proper provisions shall be made in every mine to prevent-

- (a) an outbreak of fire in the mine or the spread of fire to the mine from any mine adjacent to it;
- (b) inundation by water from a neighboring mine; and
- (c) the premature collapse of workings.

(2) Adequate steps shall be taken to isolate, control or remedy, as the case may require, any such outbreak, inundation or collapse which may occur.

(3) Where, in the opinion of an Inspector, the provisions made or steps taken for the purpose specified in sub-rule (2), are inadequate, he may require such additional provision or steps as he shall specify to be made or taken.

76. Appeal against certain orders of the Inspector.---(1) An appeal against any order passed by an Inspector under rules 51, 68, 69, 73, 74 and 75 may be preferred to the Chief Inspector whose order thereon shall save as otherwise provided in sub-rule (2), be final.

(2) An appeal against any order passed by the Chief Inspector-

(a) under sub-rules (4) and (5) of rule 68 or sub-rule (2) of rule 73; or

(b) on appeal under sub-rule (1) of this rule against any order of an Inspector passed under rules 68, 69, 73 and 74, may be preferred to the Secretary which shall refer the same to a Committee constituted in the manner laid down in sub-sections (1) and (2) of Section-18 of the Act.

(3) The procedure laid down in sub-sections (3), (4) and (5) of Section-18 of the Act shall apply to a reference made to a Committee under sub-rule (2).

(4) Every order against which an appeal is preferred under sub-rule (2), shall be complied with pending the receipt at the time of the decision of the Committee:

Provided that the Committee may, on the application of the appellant, suspend the operation of the order appealed against pending the disposal of the appeal.

77. Persons to examine his working place.---Every person shall examine his own working place before commencing work and also at intervals during the shift. If any dangerous condition is observed by him, he shall either remedy it or immediately leave the place and report the fact to an official of the mine, who shall deal with ~~the matter~~ without delay.

78. Person not to work in a place unless specifically authorized.---(1) No person shall work in any place in which he has not been ordered to work either by an official of the mine or by a person authorized in this behalf by an official of the mine.

(2) No person shall cut coal from any pillar, roof or floor unless specially so authorized by the mine manager or other person qualified under the provisions of rule 59 to make an inspection required by rule 55.

79. Authorized persons to enter a mine after explosion of fire damp or coal dust.---(1) After an explosion of fire-damp or coal dust in a mine, only such persons as are authorized by the mine manager or an official appointed by the mine manager for the purpose or in the absence of the mine manager or such official, by the principal official of the mine present at the surface, shall be allowed to enter the mine.

(2) Where rescue or recovery work is being undertaken in a mine or part of a mine likely to contain an irrespirable atmosphere no party of less than three shall be allowed to enter.

CHAPTER-VII
SPECIAL PRECAUTIONS AGAINST SPONTANEOUS COMBUSTION
AND UNDERGROUND FIRES

80. Means for detecting Carbon Monoxide gas to be kept in certain mines.--- In any mine in which an underground fire exists whether such fire has been sealed off by means of stoppings of non-inflammable materials or not or in which an explosion of fire damp or coal dust is likely to occur, there shall be kept at the mine constantly available for use means, approved by the Chief Inspector, of detecting Carbon Monoxide gas and two or more approved locked safety lamps for the purpose of testing for inflammable and other gases:

Provided that the Chief Inspector or the Inspector concerned may require compliance with this rule in the case of any mine if he thinks that the circumstances of the mine are such as to require it.

81. All structures to be of non-inflammable material.---(1) All surface structures and supports within a horizontal distance of 6.0 meters from the parameter of shafts and the covering of all shafts sealed off or covered for ventilation purpose and all fan drifts fan casings and parts of fans within such shifts or casing shall be of non-inflammable material:

Provided that this sub-rule shall not apply to-

- (a) structures and supports and the coverings of shafts if they are so protected by non-inflammable material as to eliminate the risk of fire;
- (b) the small lid or covering of a shaft operated by rope cappel; and
- (c) temporary structures, supports and coverings at the top of shafts which are in the course of being sunk.

(2) All air-crossing in main intake or main return airways and all ventilation or separation doors in any fan house or fan drift and in the vicinity of shaft bottoms or air-crossing in main intake or main return airways shall be constructed of non-inflammable material and shall be designed, as far as practicable, to prevent leakage.

(3) No timber or other inflammable material shall be used in the construction of or in connection with any underground engine-house or electrical sub-station, switch house or motor room.

(4) No oil, grease or canvas or other highly inflammable material shall be stored underground in any mine except in a fire-proof receptacle or chamber.

82. Means of extinguishing fire to be provided in mine.---(1) Adequate means of extinguishing fire shall be provided at any part of a mine where timber grease or other inflammable material is stored and at all insets where timber is used for the construction of the staging and at every pithead, pit-bottom, engine room and electrical apparatus room.

(2) In every mine in which there are water mains or other pipes containing water under pressure, an adequate number of taps shall be provided on such water mains or pipes. Hose pipe not less than 61.0 meters in length with the necessary fittings shall be kept readily available in the mine and the distance between two adjacent taps shall not exceed the length of the hose pipe.

(3) In mines or parts of mines where in the opinion of the Chief Inspector arrangements or extinguishing a fire cannot reasonably be provided under sub-rule (2), one or more of the following means shall be adopted, namely:

- (a) portable fire extinguisher shall be provided and kept readily available in good condition at suitable places underground; or
- (b) portable water tanks fitted with hand pressure pumps and an adequate length of hose piping shall be provided; or
- (c) adequate supplies of sand or incombustible dust shall be kept available at suitable places underground.

(4) A competent person appointed in writing by mine manager for the purpose shall examine each portable fire extinguisher provided under sub-rule (3) at interval not exceeding three months and the result of each such examination shall be recorded in a book kept at the mine for the purpose.

(5) Water shall not be used for putting out electrical or oil fire.

83. No person to light fire or deposit ashes etc, in any quarry.---(1) No person shall light a fire or deposit ashes or heated material in any local quarry or on any exposed outcrop of coal or any ground damaged by the extraction of coal in which open fissures or cavities exist.

(2) No person shall light a fire or permit a fire to be lighted in any underground part of a mine:

Provided that nothing in this sub-rule shall apply to the use in a mine to which rule 135 does not apply, of blow lamps or electric repairing apparatus is permitted by a special written order granted by the mine manager. The order shall specify the person who shall be in charge of the blow lamp or apparatus and shall require such person to bring it back to the surface when no longer required.

(3) No person shall light a fire or permit a fire to be lighted within a distance of 12.1 meters from the perimeter of any shaft except in accordance with a written order granted by the mine manager and only for a special purpose specified in such order:

Provided that this sub-rule shall not apply to boilers other than vertical boilers.

(4) All such orders shall be recorded in a bound paged book kept in the office of mine.

(5) No person shall ignite a feeder or an accumulation of gas.

84. No excavation to be done in certain cases.---No excavation shall be done in any part of a seam lying under any part of another seam which is on fire or is believed to be on fire or which is connected by a goaf or by broken strata to any fire except by a method which shall maintain the strata between the seam *in situ* and intact.

85. Measures in case appearance of smoke or outbreak of fire.---(1) On the appearance in any part of a mine of smoke or other sign indicating that a fire has or may have broken out all workmen other than those whose presence in the mine is deemed necessary for dealing with the emergency shall be immediately withdrawn from the mine.

(2) No workman other than the men required for dealing with or damming off the fire, shall be re-admitted until either the fire has been extinguished or the part in which it exists has been effectively dammed off and an examination has been made by the mine manager and the competent person appointed under rule 60 and the mine has been reported to be safe.

(3) Every such report shall be recorded without delay in a bound paged book which shall be kept at the mine for the purpose and shall be dated and signed by the mine manager and the competent person who made the inspection:

Provided that, in mechanically ventilated mine in which the use of safety lamps or gas detectors is not required other than for inspection purposes, this rule shall apply only to the ventilating district or districts that may be affected.

(4) The examination recorded under sub-rule (2), shall be made with an approved locked flame safety lamp or electric torch or gas detector and means of detecting carbon monoxide gas approved by the Chief Inspector. No additional light shall be used than an approved electric torch or lamp or gas detector.

86. Approved locked safety lamps/gas detectors to be used for damming off underground fire.---(1) Approved locked safety lamps, gas detectors or electric torches shall be exclusively used in the work dealing with or damming off an underground fire:

Provided that where in the opinion of the mine manager, it is necessary to take immediate steps to deal with an outbreak of fire, the provisions of this sub-rule shall be deemed to have been complied with, if the workmen engaged in dealing with the fire are provided with approved safety lamps or electric torches as quickly as is reasonably practicable.

(2) During the work of dealing with or damming off an underground fire, gas detectors detecting carbon monoxide gas approved by the Chief Inspector shall be kept at all places in which persons may be in danger from noxious gases.

87. Approved locked safety lamps or gas detectors to be used in any ventilating district of mine.---Approved locked safety lamps, gas detectors or electric torches shall be exclusively used in any ventilating district of a mine in which there is an underground fire whether such fire is sealed off by stopping or not:

Provided that the Chief Inspector may, in the case of any mine, grant exemption from this rule under such condition as he may impose, if in his opinion, the use of approved safety lamps, gas detectors or electric torches in such mine is not necessary.

88. **Precautions in any ventilating of mine not naturally wet.**---(1) In any ventilating district of a mine which is not naturally wet throughout and-

- (a) in which there is underground fire, whether sealed off or not; or
- (b) in which the extraction of pillars is in hand or is about to commence,

the following precautions with respect to danger from dry coal dust shall be taken, namely:

- (a) all haulage and trimming roads shall be systematically kept clear of accumulation of dry coal dust; and
- (b) all such roads shall be systematically treated with water or incombustible dust in such a manner as to prevent an explosion from being initiated or propagated by coal dust. If incombustible dust is used for the purpose, it shall be of a kind which is not likely to be injurious to the health of workmen.

(2) The precautions laid down in sub-rule (1), shall also be observed at all places within 121.9 meters of an area-

- (a) which has been or is being sealed off on account of fire; or
- (b) in which coal is extracted or loaded from working faces.

(3) The Chief Inspector may, by order in writing and subject to such condition as he may impose, grant exemption from the provisions of sub-rule (1) or sub-rule (2) to any mine or part of a mine on the ground that on account of the special character of the mine or part thereof, the observance of the precautions laid down therein is not necessary.

89. **Precautions where fire believed to exist in any working of a mine.**---In any working mine in which a fire is known or is believed to exist-

- (a) adequate precautions shall be taken to prevent the passage of air from the mine through any goaf or through broken strata connected with the fire; and
- (b) no work, other than work required by clause (a) of this rule, shall be done in any part of the mine which is not effectively sealed off from any such goaf or broken strata.

CHAPTER-VIII

TRAVELLING ROADS AND SAFETY OF PERSONS ON HAULAGE ROADS

90. **Size of travelling roads.**---The size of traveling road in a mine, through which load is carried by human agency, shall not be less than 1.67 meters high, 1.5 meters wide at bottom and 1.21 meters wide at top:

Provided that the Chief Inspector may by order in writing permit the maintenance of different size of travelling roads where special conditions so require.

91. Length of roads where materials are transported by means of gravity or mechanical power.--(1) Every length of road or roadway in a mine where materials are transported in tubs by means of gravity or mechanical power, shall-

(a) be of adequate dimensions and, as far as practicable, shall be straight and of regular gradient; and

(b) have tracks properly laid with rails of adequate dimension.

(2) In a haulage roadway-

(a) pulleys, sheaves and rollers that alter the direction of a rope shall be securely fixed; and

(b) no person shall guide or adjust a moving rope on to a drum, pulley, sheave or roller except with a lever or other proper appliance.

(3) Where haulage is effected by one or more ropes, there shall be provided and maintained-

(a) at the top of every inclined plane, at least one stop-block or other effective contrivances to arrest tubs from running or moving out of control;

(b) at least one runway with or other effective contrivance below the first stop block or other contrivance at a distance greater than the length of a set or train of tubs:

Provided that such distance shall not exceed the length of a set or trains of tubs by more than 10 meters;

(c) when the Chief Inspector by an order in writing so requires, the stop block and the switch or other effective contrivance referred to in clause (b), shall be in inter-coupled position so that they do not remain simultaneously ineffective;

(d) in attachment behind an ascending tub or set of tubs of a back-stay, drag or other suitable contrivance for preventing the tub, set of train of tubs running back and where an endless rope or chain issued, a suitable automatic catches or other effective contrivances are provided at suitable intervals along the track to prevent the ascending tubs running back:

Provided that the Chief Inspector may, by an order in writing and subject to such conditions as he may specify therein, grant exemption from the operation of this clause on grounds that compliance with the provisions thereof is not reasonably practicable;

(e) safety hooks, jazz-rails or other suitable system be provided to prevent runaway in the forward direction;

- (f) tub-rails at intervals of not more than 250 meters and where a tub is re-railed manually, it shall either be detached from the rope or ropes. The haulage engine which works the ropes shall be stopped; and
- (g) on every haulage roadway exceeding 30 meters in length, effective mechanical or electrical means or transmitting signal from every stopping place on the roadway to the place at which the machinery working the rope is operated:

Provided that the Inspector concerned may, by an order in writing, require means of transmitting signals in the reverse direction also, and if any doubt arises as to whether any means of transmitting signal is effective or not, it shall be referred to the Chief Inspector for decision.

92. Provision of manholes.---(1) Every haulage road on which the haulage is worked by gravity or mechanical power shall be provided with sufficient manholes for refuge to the person which shall in no case be placed at intervals of more than 18.3 meters and which shall not be less than 1.5 meters in height 0.9 meters in width and 1.2 meters in depth. Where the inclination is more than 1 in 6, the manholes shall be at intervals of not more than 9.1 meters:

Provided that where the roadway is less than 1.5 meters in height, the manhole may be made to the full height of the roadway.

(2) The Chief Inspector may by order in writing and subject to such conditions as he may specify therein, permit the use as manholes of cross-roadways other than haulage roadway or dimensions larger than those aforesaid.

(3) Every manhole shall be kept clean and whitewashed both inside and outside a distance of not less than 0.3 meters around the aperture and the entrance of such manhole shall be kept unobstructed.

(4) As far as practicable all manholes shall be provided at the side of the haulage roadway.

(5) In case where there are serious practical difficulties in providing manholes as specified in foregoing provisions, the Chief Inspector may, by an order in writing subject to such conditions as he may specify therein, permit manholes to be at intervals or of other dimensions.

(6) Except where haulage is affected by means of an endless rope or where the haulage rope is in motion, every person in the haulage roadway shall have a shelter in a manhole.

93. Signals for haulage work.---(1) Every haulage road exceeding 30.5 meters in length on which the haulage is worked by the gravity or mechanical power, shall be provided with proper means of communicating distinct and definite signals from all stopping places to the place or places at which the persons who control the machinery are stationed:

Provided that the Chief Inspector may, at his discretion and by order in writing, require that there shall be means of communicating signals in reverse direction also.

(2) The first four or principal signals shall be —

One rap	....	....	....	....	STOP when in motion
Two raps	....	....	....	....	Lower slowly
					Or
					HAUL IN SLOWLY
Three raps	....	....	....	....	START when at rest
Four raps	....	....	....	....	RAISE SLOWLY
					Or
					HAUL OUT SLOWLY

(3) Any other signals shall be in addition to and shall not interfere with the signal mentioned in sub-rule (2):

Provided that the Chief Inspector by order in writing may, at his discretion, permit the use of a different code of haulage signals.

(4) A printed copy of the code of signals including additional signals, if any, shall be pasted prominently at the place in which the machinery that works the rope is operated and at all regular stopping places along the road way.

(5) No person; other than a competent person or an official, shall give any signal.

94. Telephone communication.---(1) Where a main haulage road extends to a distance of more than 914.4 meters from the shaft or the entrance to the mine, efficient means of telephone communication shall be provided and maintained between a suitable station near the end of every such main haulage road, the pit-bottom and the surface or between a suitable station near the end of every main haulage road and the entrance to the mine:

Provided that the Chief Inspector may by order in writing require the provisions of means of telephonic communication where in any mine main haulage extend to a distance of less than 914.4 meters from the shaft or the entrance to the mine, where travelling is unduly arduous:

Provided further that the Chief Inspector may, by order in writing, permit the use of other suitable means of communication in cases in which the conditions in the mine are not suitable for telephones.

(2) Where, in any mine below ground, a system of haulage roadway and conveyors, if any, extend to a distance of more than six hundred (600) meters from the shaft or the entrance to the mine, efficient telephonic communication shall be provided and maintained between the end of every such system and the bottom and top of the shaft or the entrance to the mine, as the case may be:

Provided that where travelling is unduly arduous, the Inspector concerned may, by an order in writing require the provision and maintenance of telephonic communication in any other case also.

95. **Telephone and signal wiring.**---Where telephones or electrical signals are provided-

- (a) adequate precautions shall be taken to prevent signals and telephone wires coming into contact with other cables and electrical apparatus;
- (b) signal wires shall be supported on insulators and shall not be energized at more than 25 volts;
- (c) contact makers shall be so constructed as to prevent accidental closing of the circuit; and
- (d) in every mine or part thereof to which rule 135 of these rules applies, all signaling or telephonic communication circuit shall be constructed, installed, protected, operated and maintained in such a manner as may be intrinsically safe.

96. **General safety measures.**---(1) At places where telephone receivers are installed or where signals and safety appliances are regularly operated, every person using the telephone or operating any such signal or safety appliance shall be afforded adequate protection against tubs moving out of control.

(2) The mine manager shall, by an order in writing, in respect of every haulage road or roadway, fix the maximum number of tubs, according as to whether they are loaded or not loaded, that may be coupled together to run as a set or train. A notice specifying the number of tubs so fixed shall be pasted prominently at the top and at all regular stopping places of the haulage road or road way.

(3) At all places where tubs are coupled or uncoupled, there shall be a clear space of not less than one meter between the tubs and one side of the roadway and where there are two or more tracks between the adjacent tracks.

(4) A printed copy of the attachment at every stopping place on any haulage or self-acting incline shall be placed in such a position as will enable the persons operating the signals to be safe in the case of a runaway tub or tubs on the incline.

(5) The signal handle or attachment at every stopping place on any haulage or self-acting incline shall be placed in such a position as will enable the persons operating the signals to be safe in the case of a runaway tubs or tubs on the incline.

97. **Travelling roadways.**---(1) Except when an exemption in writing has been granted by the Chief Inspector and subject to such conditions as he may specify therein, travelling roadways, separate from haulage roadways on which haulage is effected by mechanical means or gravity, shall be provided for persons to travel to and from their working places.

(2) Every such travelling roadway shall-

- (a) not be less than 1.8 meters high throughout;
- (b) where the inclination exceeds thirty (30) degrees from the horizontal, be provided with suitable steps or ladders;

- (c) where the inclination exceeds forty five (45) degrees from the horizontal, be provided, in addition to steps or ladders, with hand rails or ropes so as to ensure safe travel; and
- (d) where the inclination exceeds sixty (60) degrees from the horizontal, be provided, in addition to the steps or ladders and rails or ropes, with suitable platforms at intervals not exceeding ten (10) meters measured along the slope.

(3) Except for purposes of inspection, examination or repair, every person other than an official of a haulage attendant shall travel by the travelling roadway or compartment.

(4) Where persons using a travelling roadway or compartment have to cross a conveyor or a haulage worked by mechanical means or gravity, a suitable cross-over or cross-under bridge or other suitable device approved in writing by the Chief Inspector shall be provided.

(5) When any roadway or face is in direct line with a haulage track and persons may be exposed to danger from runaway tubs, a strong buffer or other effective contrivance to prevent such danger shall be provided and maintained.

(6) A stop block or other effective contrivance shall be provided near the entrance of every travelling roadway branching off the main haulage road or roadway and on every track which slopes towards a shaft.

(7) No haulage shall be used for the general conveyance of persons except with the permission in writing of the Chief Inspector and subject to such conditions as he may specify therein.

(8) In any underground part of mine main haulage and travelling roads shall, as far as practicable, be kept free from accumulations of fine coal dust.

98. **Tubs.**---(1) On every tub there shall be provided and maintained at each coupling end a strong buffer projecting beyond the end and so arranged that when two such tubs are in tandem, the gap between the innermost ends shall not be less than twenty (20) centimeters.

(2) On every side-tipping tub in use, safety-catches shall be provided to prevent accidental tipping. No tub or set or train of tubs shall be set in motion unless all the safety catches are properly secured.

(3) The attachment between a rope or locomotive and a tub or set of tubs and the attachment between any two tubs in a set shall be of a type approved in writing by the Chief Inspector by a general or special order and so maintained as to obviate accidents.

(4) The state of every buffer and drawbar of every tub in use and of every safety-catch, coupling-chain and other attachment shall be examined once at least in every fourteen days, by a competent person appointed for the purpose. A report of every such examination shall be recorded in a bound-paged book kept for the purpose and shall be signed and dated by the person who made the examination.

(5) At top of every incline on which the haulage, not being endless chain haulage, is worked by mechanical power or gravity there shall be stop blocks or other similar contrivances to prevent tubs from running away. Additional stop-blocks or runaway switches or some other appliances for arresting the descent of tubs in the event of a runaway, shall be fixed below the first stop blocks at a greater distance than the length of a train of tube. There shall also be provided and attached behind the ascending tub or tubs a back stay, drag or other suitable contrivance for preventing the tub or tubs from running back.

(6) Where haulage is affected by means of an endless rope or chain, automatic catches shall be fixed at such points on the haulage road as may be necessary to prevent tubs from running away.

(7) No persons shall permit a tub or tubs to run uncontrolled except with the consent of the mine manager:

Provided that the Chief Inspector may, by order in writing, prohibit the uncontrolled movement of tubs at any place where, in his opinion, there would be danger of injury to persons.

(8) No persons shall ride on any tub, truck or wagon, either underground or above ground except with the written permission of the mine manager.

(9) All coal tubs shall be so constructed and maintained as to prevent, as far as practicable, coal dust escaping through their sides, ends or floors.

99. **Movement and control of tubs.**---(1) When tubs are about to be moved persons likely to be in danger shall be warned.

(2) Two or more tubs shall not be moved by hand in close succession so that at any time the distance between them be ten (10) meters.

(3) No person shall cause or permit a tub to run uncontrolled except with the written permission of the mine manager:

Provided that the Inspector concern may, by an order in writing, prohibit the uncontrolled movement of tubs at any place if he is of the opinion that such movement is likely to cause danger.

(4) No person while taking a tub down a gradient 1 to 20, shall go in front of the tubs and in every case where conditions are such that a person cannot control the tubs from behind, he shall not take the tubs down unless sprage or other suitable contrivances are used to control them, and for the purpose a sufficient number of suitable material and dimension shall be provided.

(5) No person shall ride on any tub or haulage rope except with the written authority of the mine manager and a list of all persons so authorized shall be maintained.

100. **Coupling of tubs.**---(1) Every tub while standing on a track having a gradient of more than 1 in 20, shall unless held effectively by brakes or securely coupled to a haulage rope or locomotives be effectively blocked, chained or otherwise secured.

(2) Except where haulage is affected by means of an endless rope, the coupling and uncoupling of tubs shall, as far as practicable, be done only when the tub or the set of the tubs, and the rope if connected to the set is not in motion.

(3) As far as practicable, tubs shall not be coupled or uncoupled on a gradient.

101. Brakes of haulage engine.---Every haulage engine shall be provided with two independent effective brakes.

102. Haulage ropes.---(1) No rope shall be used for the purpose of haulage if it has any serious visible defect over any length.

(2) Every rope which capped shall be recapped once at least in every six months and if necessary at shorter intervals, under the supervision of a competent person.

(3) For every haulage rope in use, a record of size, construction, quality, name of supplier and dates of installation and of recapping shall be recorded in a bound-paged book kept for the purpose, and all entries therein shall be made by the competent person who shall sign the same and date his signature.

103. Roadway conveyor.---(1) Any roadway conveyor shall be so installed that-

- (a) between the conveyor and one side of the roadway, there is a travelling space of not less than one meter wide free from obstruction;
- (b) the conveyor or any part thereof does not scratch against wooden props or supports; and
- (c) the anchoring of the return station of the conveyor is independent of the face or roadway support.

(2) Where the inclination of the conveyor is such as to give rise to danger from sliding objects or material, suitable devices shall be used to provide adequate protection against such danger.

(3) On every length of roadway in which a conveyor is installed for transporting loads over a distance exceeding thirty (30) meters, there shall be provided and maintained effective means of transmitting signals from every point on the length of the road to the place at which the machinery working the conveyor is operated:

Provided that the Chief Inspector may, by an order in writing, require means of transmitting signals in reverse direction also.

(4) No belt conveyor shall be used in gassy mines below ground without the permission in writing of the Chief Inspector and subject to such conditions as he may specify therein.

104. Examination of haulage engine.---(1) It shall be the duty of a competent person to examine carefully-

- (a) once at least in every 24 hours, every haulage engine brake-wheel rope and other appliance in use; and
- (b) once at least in every seven days, every track where the haulage is effected by mechanical power or gravity and every safety contrivance fitted thereon.

(2) A report of every such examination shall be recorded in a bound-paged book kept for the purpose and shall be signed and dated by the person who made the examination.

105. Examination of haulage and travelling roads.---It shall be the duty of the over man or other competent person to examine carefully, once at least in every seven days, the state of all haulage and travelling roads and roadways including roadways leading to all the outlet of the mine which are in use and a report of every such examination shall be recorded in a bound-paged book kept for the purpose and shall be signed and dated by the person who made the examination.

106. Locomotives.---(1) Where rule 135 of these rules applies, no locomotive shall be used below ground otherwise than in accordance with the permission in writing of the Chief Inspector and subject to such condition, as he may specify therein.

(2) No locomotive shall be used where the gradient of the track exceeds 1 in 15.

(3) No person other than the driver shall ride on any locomotive unless authorized in writing to do so by the mine manager.

(4) Except during shunting operations, the locomotive shall lead the tubs or set or train of tubs.

(5) Every locomotive used underground shall be provided with an exhaust conditioner.

107. Movement of wagons.---(1) No person who has not attained the age of twenty one (21) years shall be employed in moving railway wagons.

(2) The movement of railway wagons shall be carried on under the supervision of a competent male person who shall himself control the brake and before wagons are moved, persons likely to be endangered shall be warned by such person.

(3) No person shall move or attempt to move a wagon by pushing at the buffer or by pulling from in front.

(4) Where two or more wagons are moved simultaneously the wagons shall be coupled together and the number shall not exceed the number which can be effectively controlled. They shall be moved only by pushing from the side or from behind the last wagon.

(5) No locomotive or wagon shall be moved when the natural light is insufficient, unless the approaching end is distinguished by a suitable light or is accompanied by a person carrying a lamp.

(6) No person, other than the competent person referred in sub-rule (2), shall pass immediately in front of wagons moving under bins and screens or between moving wagons and the under structure of the bins or screens.

(7) No person shall be upon the buffer or a locomotive or wagon in motion unless there is a secure handhold or stand thereon and unless there is also a secure foot-place and no person shall pass over the coupling between any two wagons while the wagons are moving.

(8) No person shall cross a lane of rails by crawling or passing underneath a train or wagon nor shall a person sit or sleep underneath a wagon.

(9) Where railway wagons are specially placed so as to afford a thoroughfare, such thoroughfare shall not be less than five (5) meters in width.

(10) No material shall be placed or dumped within 1.2 meters from either side of track of rails.

(11) All space between the rails at switches and crossings in which the foot of a person is liable to be caught, shall, where possible, be kept filled with concrete, tar, asphalt or wooden blocks.

108. Fencing and gates.---(1) Where any haulage road of tramline passes over a public road, suitable gates shall be provided to prevent danger to public from a moving tub, set or train of tubs of locomotive. Every such gate shall be fitted with a danger signal, and when the natural light is insufficient also with warning lamps.

(2) Where occupied buildings are situated within fifteen (15) meters of any haulage road or tramline, a substantial fence shall be provided and maintained between such buildings and the haulage road or tramline.

CHAPTER-IX EXPLOSIVES

109. Owner, agent or mine manager not to store explosives in mine.---(1) No owner, agent or mine manager shall store or knowingly allow any other persons to store, within the premises of the mine, any explosives otherwise than in accordance with the provisions of the Khyber Pakhtunkhwa Explosives Act, 2013 (Khyber Pakhtunkhwa Act No. XXIV of 2013) and the rules made thereunder.

(2) No explosive shall be stored in the working of mine or taken into or kept in dwelling houses.

110. Explosives to be used as provided by the mine manager.---No explosives shall be used in a mine except that provided by the mine manager. The mine manager shall appoint in writing a competent person or persons to be in-charge of every magazine.

111. Explosives to be issued to competent person.---Explosives shall be issued only to the competent persons appointed in writing by the mine manager and no unauthorized persons shall have explosives.
112. Ban on liquid Oxygen explosives.---No liquid oxygen explosives shall be used in any underground part of a mine.
113. Gunpowder to be used in the form of cartridges.---No gunpowder or any other kind of explosives except fuses and detonators, shall be issued for use in blasting operation in a mine or used in a mine except in the form of cartridges.
114. Unused explosives.---Explosives unused and left over at the end of a shift shall be returned to the magazine immediately after the end of the shift. Such returned explosives shall be re-issued before fresh stock is used.
115. Duty to maintain record of magazines.---The persons in charge of a magazine shall keep a correct record of the quality of gunpowder and of the number of cartridges or other kinds of explosives and of detonators issued from the magazine to each authorized persons and similar record of explosives returned to the magazine.
116. Preparation of cartridges.---The preparation of cartridges from loose gunpowder, the drying of gunpowder and the re-construction of damp cartridges shall be carried out only by a competent person or persons appointed in writing by the mine manager for the purpose and only in accordance with the conditions laid down in rules made under the Khyber Pakhtunkhwa Explosives Act, 2013 (Khyber Pakhtunkhwa Act No. XXIV of 2013) and in a place approved by the Inspector of Explosives of the Province.
117. Handling of explosives in a mine.---No explosives shall be taken into a mine except in securely locked cases or canisters, containing not more than 5.0 kilogram each and no persons shall have in use or keep for use at one time in any one place, more than one such case or canister. The place in the mine at which any such case or canister is in use or is kept for use, shall, unless solid ground directly intervenes, not be less than 9.1 meters from a place at which any other such case or canister is in use or kept for use:
- Provided that the Chief Inspector may, in special cases by order in writing permit, subject to such limitations as he may determine, allow the use at one time in one place of more than one case or canister.
118. Amount of charge not to be disproportionate.---The amount of every charge of explosives shall not be disproportionate to the work to be done. The charge shall be placed in a properly drilled shot hole and shall have sufficient stemming. A sufficient supply of suitable non-inflammable stemming materials shall be provided at places convenient to the shot-fires.
119. Shot to be stemmed under the supervision of a competent person.---(1) No shot shall be stemmed or fired except by or under the personal supervision of a competent person appointed by the mine manager by order in writing to be a shot-firer.
- (2) In any mine in which more than fifty (50) persons are employed underground at any one time, no person shall be so appointed or shall perform the duties of a shot-firer who is responsible for making inspection under sub-rule (2) of rule 55.

(3) No person shall be appointed as a shot-fire under sub-rule (1), unless he holds a Shot-firer's Certificate granted under the Khyber Pakhtunkhwa Conduct of Examination Rules.

120. Precaution by a shot-firer.---(1) Every shot-firer shall before a shot is fired by him or under his supervision, see that all persons in the vicinity have taken proper shelter at a safe distance.

(2) He shall also take suitable steps to prevent any person approaching the shot and shall himself take proper shelter.

121. No blasting to be done in certain places.---When two working places have approached to within 3.0 meters of one another, no blasting shall be done in any one of such working unless the workmen have been withdrawn from the other working and the same has been fenced.

Explanation: For the purpose of this rule, any place to which workmen have lawful access shall be deemed to be a working place.

122. Non-inflammable substance to be used for tamping or stemming.---In the process of charging or stemming for blasting, no person shall use or have in his possession any iron or steel pricker, a craper, tamping tod or stemmer and only suitable non-inflammable substance shall be used for tamping or stemming.

123. Un-ramming of explosives.---(1) When a hole has been charged, the explosive shall not be un-rammed except in a manner and by a machine approved by the Chief Inspector.

(2) No hole shall be bored at a distance of less than 30.4 centimeters from any hole where a charge has misfired, nor shall a second charge be placed in any such a hole.

(3) No explosive shall be forcibly pressed into a hole of insufficient size.

124. Detonators to be kept in locked box.---Detonators shall be kept in a securely locked box separate from any other explosive and no detonator shall be inserted into the priming cartridge until immediately before it is to be used:

Provided that in the case of a wet working, priming cartridge may be prepared at the nearest convenient place adjacent to the working.

125. Shot firing in mines where locked safety lamp or gas detector is required.---(1) In any place where there is a mine in which the use of locked safety lamp or gas detector is for the time being required by or in pursuance of these rules-

- (a) no shot shall be stemmed or fired by any person who does not hold a Shot-firing Certificate granted by the Board of Examiners;
- (b) no shot shall be fired until the shot firer has examined both the places where the shot is to be fired and all accessible places within a radius of 18.2 meters for the presence of inflammable gas and has found such place free from gas; and

- (c) no shot of a permitted explosive shall be fired except by means of a shot-firing apparatus of a type approved by the Chief Inspector and subject to such conditions as he may from time to time lay down by notification:

Provided that the Chief Inspector may in special cases, by order in writing and subject to such conditions as he may specify, permit the use of any other shot-firing apparatus.

(2) Every approved shot-firing apparatus in use in mines shall, once at least in every three months, be cleaned and thoroughly overhauled by a competent person appointed in writing by the mine manager.

(3) No person shall use or allow to be used any approved apparatus which has become unsafe or defective.

(4) No shot shall be fired at any place underground in a mine unless the place itself and all accessible places within a distance of 18.2 meters-

- (a) are naturally wet; or
- (b) have been drenched with water to such an extent that there shall be no danger of dry coal-dust being raised into the air by the shot; or
- (c) have been thoroughly treated with incombustible dust.

126. Use of explosives in mines with inflammable gas.---No explosive other than a permitted explosive shall be used-

- (a) in any mine in which inflammable gas has, within the previous twelve months, been reported to be present or in which safety lamps are required, by or in pursuance of these rules, to be used for any purpose other than inspection; and
- (b) in any other mine in any main haulage road or main intake or main return airway or any place immediately contiguous to such road, intake, airway or place, unless such road, intake airway or place is naturally wet throughout:

Provided that in the case of any mine or any part of mine an exemption may be given by the Chief Inspector subject to such conditions, as he may impose, on the ground that on account of the special character of the mine, the prohibition of the use of explosive other than permitted explosive is not necessary.

127. Shot firing in a mine where use of permitted explosive is required.---In any mine in which the use of permitted explosive is required by these rules or any order made under the Act-

- (a) where more shots than one are charged for firing, the shots shall be fired simultaneously;

- (b) the aggregate charge in any number of shots fired simultaneously in coal shall not exceed the permissible maximum charge laid down by the Chief Inspector for the kind of permitted explosive used; and
- (c) no shot shall be fixed in coal in any gallery unless-
 - (i) the coal has been undercut, overcut or side cut; and
 - (ii) the length of the shot hole is at least 15.2 centimeters less than the length of the cut.

128. Firing shots in underground part of a mine.---In any underground part of a mine two or more shots shall not be charged or fired in the same place simultaneously, if the explosive used is not a permitted explosive:

Provided that this rule shall not apply to-

- (a) working places in which the roof, floor and sides within a radius of 30.5 meters of the place where shots are to be fixed are naturally wet; or
- (b) across measure drift in stone if such drift does not contain dry coal-dust; or
- (c) shafts which are in the process of being sunk through or across the strata.

129. Shots fired electrically.---Where shots are fired electrically, the shot-firer shall-

- (a) for the purpose of firing, use a cable which is not less than 18.2 meters in length;
- (b) before coupling the cable to the firing apparatus, couple up the cable himself to the fuse or detonator wires;
- (c) take care to prevent the cable coming into contact with any power lighting cable; and
- (d) himself couple the cable to the firing apparatus and before doing so, see that all persons in the vicinity have taken proper shelter at a safe distance.

130. Shot firer to clear the place.---After a shot has been fired, the shot firer appointed under rule 115 or other competent persons appointed in writing by the mine manager shall before any other persons enters the place, make a careful examination and with his assistance make the place safe. No other person shall enter the place until the examination has been made and the place has been declared to be safe in all respect.

131. Measures to be taken when a shot has misfired.---(1) When a shot has misfired, the entrance to the firing place shall be fenced and no person shall go beyond the fence until the expiration of one hour from the time of misfiring; however, when an electrical apparatus has been used for firing, this interval may be reduced to such time, not being less than ten minute after the cable has been disconnected from the firing battery, as the mine manager may in each case direct.

(2) When a shot has misfired, the officials or other competent persons in charge of the explosive at the time of the misfire shall report the failure to the mine manager or under-mine manager, who shall record the fact in a book to be kept for the purpose and such officials or other competent persons shall give information of the failure to such person as may relieve or take over charge from him.

(4) When a misfired charge of explosive has been blasted out, a careful search for cartridges and detonators, if any, shall be made amongst the debris and if not locked underground, the tubs into which the debris loaded shall be marked and a further search shall be made on the surface.

CHAPTER-X VENTILATION AND LIGHTING

132. Adequate amount of ventilation to be provided in a mine.---(1) An adequate amount of ventilation shall be constantly produced in every mine to clear away smoke and to dilute and render harmless, inflammable and noxious gases to such an extent that the working places of the shafts, levels and working of the mine and the travelling roads to and from these working places shall be in a safe state for the persons working or passing therein.

Explanation: The word adequate means that the level of various gases in mines are as under, namely:

- (a) Oxygen not less than 19%;
- (b) Carbon monoxide not more than 0.01%;
- (c) Hydrogen sulphide not more than 0.002%;
- (d) Nitrous fumes not more than 0.0005%;
- (e) Sulphur dioxide not more than 0.0005%;
- (f) Fire damp not more than 1%;
- (g) Nitrogen not more than 80 %; and
- (h) Carbon Dioxide not more than 0.5%.

(2) Where the Chief Inspector is of the opinion that it is necessary for the adequate ventilation of mine or for the prevention of danger from inflammable or noxious gases, he may require that mechanical ventilator shall be installed.

133. Mine manager to submit Standing Orders.---(1) The Chief Inspector may require the mine manager in which or in any part of which, a mechanical ventilator is in use, to submit within one month Standing Orders specifying the action that shall be taken with respect to the withdrawal of workmen from such mine or parts of such mine in the event of a stoppage of the mechanical ventilator.

(2) The Chief Inspector may approve such Standing Orders either in the form submitted to him or with such additions or alteration as he may think fit and shall give notice in writing to the mine manager that the Standing Orders in the form approved by him shall be enforced at the mine.

(3) On receipt of notice from the Chief Inspector, the mine manager shall post the Standing Orders in conspicuous places at the mines both above and below ground and shall be responsible for securing effective compliance with them.

134. Mine in which inflammable gas has been found.---(1) In every mine in which inflammable gas has been found within the previous twelve months or where workings have been walled of an account of fire, the quantity of air shall at least once in every month be measured-

- (a) in the main intake airways of every seam as near as practicable to the downcast shafts;
- (b) in every splits, as near as practicable to the point at which the split commences; and
- (c) in each ventilating district, as near as practicable to a point where the air is subdivided at the end of a main split or where it enters the first working place.

(2) The measurements referred to in sub-rule (1), shall be entered in a bound-paged book kept at the mine for the purpose.

135. No artificial light to be used in mine where inflammable gas has occurred.---(1) No artificial light other than approved locked safety lamp shall be allowed or used-

- (a) in any seam in a mine in which an explosion or ignition of inflammable gas has occurred during the previous twelve months:

Provided that the Chief Inspector may, subject to such conditions as he may impose, exempt any mine from the operation of this clause on the ground that on account of the special character of the mine the use of approved locked safety lamps or gas detectors is not necessary;

- (b) in any place in a mine in which there is or likely to be any such quantity of inflammable gas as to render the use of naked lights dangerous;
- (c) in any working near a place in which there is likely to be an accumulation of inflammable gas;
- (d) in any ventilating district of a mine in which inflammable gas has been found during the previous twelve months; or
- (e) in any mine or part of a mine in which coal dust in the mine air is of such a character as to ignite or explode in the presence of naked light.

(2) If any difference of opinion arises between the Inspector concerned and a mine manager on the question whether the conditions specified in clause (b), (c) and (e) of sub-rule (1), exist in any mine, the question shall be referred to the Chief Inspector whose decision thereon shall be final.

(3) In the case of any mine to which clause (d) of sub-rule (1) applies, the Chief Inspector may, if approved locked safety lamps are not immediately available, grant a temporary exemption from the operation of that clause, subject to such conditions as he may specify, until such time as approved locked safety lamps can be obtained.

(4) In any mine or part of a mine in which approved locked safety lamps have been in use in compliance with the provisions of sub-rule (1), no artificial light other than an approved locked safety lamp shall subsequently be allowed or used except with the written consent of the Chief Inspector.

Explanation: Where the ventilation in a mine is not mechanically controlled, the ventilating district shall be deemed to include the whole mine. Where the ventilation is part only of a mine is not mechanically controlled, the whole of the part in which ventilation is not mechanically controlled shall be deemed to be a single ventilating district.

136. Use of fixed electric lights.---Notwithstanding anything contained in rule 139, fixed electric lights from power mains may be used in any part of a mine which is not within 183.0 meters of any working face; provided that such installation complies with the rules made under the NEPRA ACT, 1910, relating to the use of electric energy in parts of mines in which inflammable gas is likely to occur in quantity sufficient to be indicative of danger.

137. Driving of advance gallery in mine.---In any mine in which inflammable gas has been found during the previous twelve months, no advance gallery shall be driven more than 3.0 meters ahead of the widened gallery and in every such gallery the ventilating current shall be conducted as near to the working face as is practicable.

138. Safety lamps/gas detectors to be numbered.---All safety lamps/gas detectors in ordinary use shall be numbered and such record shall be kept of the persons to whom the lamps/detectors are issued that the user of any particular lamp/detector can any time be identified from the record.

139. Provisions governing use of approved locked safety lamps and gas detectors in mine.---In every mine or part of a mine in which the use of approved locked safety lamps or gas detectors is for the time being required by or in pursuance of these rules, the following provisions shall have effect, namely:

- (a) a competent person shall be appointed in writing by the mine manager to clean, trim, examine and lock securely all such lamps before they are taken into the working for use and such lamps/detectors shall not be issued for use until they have been so examined and found to be in safe working order and securely locked;
- (b) a competent person appointed in writing by the mine manager for the purpose shall examine every safety lamp at the surface immediately before it is taken underground for use and shall assure himself, as far as practicable,

from external observations that each lamp is in safe working order and securely locked. The person so appointed shall not be the banks man except in a mine where the number of persons employed underground is not more than fifty at any one time;

- (c) no safety lamp shall be unlocked except at the appointed lamps station;
- (d) a competent person appointed in writing by the mine manager for the purpose shall examine every safety lamp on its being returned after use underground. If on such examination any lamp is found to be damaged or misused in a book to be kept at the mine for the purpose. Every new entry in the book shall be shown to the mine manager without delay;
- (e) the mine manager or a competent official appointed in writing by the mine manager for the purpose, other than persons referred to in clause (a) and (b) of this rule, shall examine thoroughly all safety lamps in use at a mine at least once in every week and shall record the result of his examination in a book kept at the mine for the purpose. If any lamp is found to be defective, it shall not be re-issued for use until the defect has been remedied;
- (f) no person, unless he has been authorized in writing by the mine manager either for the purpose of examining or relighting safety lamps, shall have in his possession any contrivance for opening the lock of a safety lamp;
- (g) no person shall have in his possession any unlocked safety lamp or naked light, and if it appears to a person that any safety lamp in his possession is defective or insecure he shall at once carefully extinguish the flame and report the fact to the mine sirdar or mine manager;
- (h) no glass of an approved flame safety lamp shall be replaced except by a flame lamp glass manufactured by such firm and of such type and satisfying such conditions as the Chief Inspector may from time to time specify by notification; and
- (i) no bulb of an approved electric safety lamp shall be replaced except by an electric lamp bulb manufactured by such firm and of such type and satisfying such conditions as the Chief Inspector may time to time specify by notification.

Explanation: For the purposes of this rule, the term mine manager includes an undermine manager and any person for the time being carrying on the duties of the mine manager.

140. Fixing of lamp stations.---(1) Where the use of safety lamps is for the time being required by or in pursuance of these rules one or more lamp stations for lighting or relighting the lamps shall be fixed by the mine manager at the entrance to the mine or part of the mine, as the case may require.

(2) No such lamp station shall be in a return airway.

(3) Every such lamp station shall be in charge of a person authorized in writing by the mine manager.

141. **No safety lamp to be given out.**---No person other than a person authorized by the mine manager to examine and lock safety lamps, shall either himself take or give out for use any safety lamp.

142. **Safety lamps not to be damaged or improperly used.**---No person shall willfully damage or improperly use or by improper means extinguish any safety lamp and no one except a person duly authorized by the mine manager in that behalf shall unlock or open or attempt to unlock or open any safety lamp.

143. **Person to inform mine sirdar or mine manager.**---Any person discovering the presence of inflammable gas in the working place shall immediately withdraw there from and inform the mine sirdar or mine manager.

144. **Light in underground part of mine.**---(1) In any underground part of a mine where adequate stationary lights are not in use, every person shall carry a light.

(2) No Person shall leave a light in any underground part of a mine unless and until he has placed it in charge of some person remaining therein.

(3) Every person after passing through a door or brattice cloth shall at once close it.

145. **No match box or smoking apparatus to be carried in mine.**---(1) In every mine or part of a mine in which the use of safety lamp/gas detector is for the time being required by or in pursuance of these rules, no person shall have in his possession any match smoking apparatus or any apparatus of any kind for striking a light except such apparatus for the purpose of shot-firing or relighting lamps as the Chief Inspector may by general or special order in writing authorize in this behalf.

(2) A competent person appointed in writing by the mine manager for the purpose shall search all persons employed below ground immediately before they enter such mine or part of mine for the purpose of ascertaining whether they have in their possession any article of the nature described in sub-rule (1).

(3) The person conducting the search shall-

(a) search or turn out all pockets;

(b) pass his hand over all clothing; and

(c) examine any article in the possession of the person searched.

(4) If the person conducting the search suspects that the person searched is concealing any article of the nature described in sub-rule (1), he shall detain him and as soon as possible refer the matter to the mine manager or other persons to enter the mine until he is satisfied that the person has no such article in his possession.

146. **Means for reversing air current in mine.**---After such date as the Chief Inspector may fix for any mine in view of the special circumstance thereof, there shall, in every mine in which a mechanical contrivance for ventilation is used, be provided and maintained in a condition to be put into immediate operation, adequate means for the reversing the air current.

147. **Check for the measurement of noise.**---(1) There shall be constant check for the measurement of noise produced by any kind of machine or equipment used in or around mine.

(2) As far as possible, the noise heard throughout the working shift at work places shall not be allowed to exceed 90 dB.

CHAPTER-XI FENCINGS AND GATES

148. **Mine to be properly fenced.**---(1) Every entrance to a mine from the surface and the top and all entrances between the top and the bottom, including the sump, if any, of every working, ventilating or pumping shafts and the top of every open excavation shall be kept properly fenced:

Provided that any fence may be temporarily removed for the purpose of repairs or other operations, if proper precautions are used.

(2) Shafts temporarily or permanently out of use and any place in or about an excavation which is dangerous shall be kept properly fenced.

149. **Gates in certain mines.**---(1) Every entrance to a mine from the surface, by which the mine can be entered on foot, if it is regularly used as a travelling or haulage road, shall be provided with a gate, which shall be kept closed and locked when there are no persons underground in the mine and shall be so constructed as to prevent effectually, when closed, the entrance into the mine.

(2) Every entrance to a mine from the surface, by which the mine can be entered on foot, if it is regularly used as a travelling or haulage road, shall be permanently closed or kept properly fenced across the whole width of the entrance.

(3) Gates and fences at entrances to mines shall be so constructed as not to prevent egress in case of emergency.

150. **Entrance to any place in a mine to be fenced if not in use.**---Every entrance to any place in a mine which is not in actual use or course of working or extension, shall be properly fenced across the whole width of the entrance and every such face shall be so constructed as effectually to prevent persons from entering such place inadvertently.

151. **Place in mine found to be dangerous.**---(1) Where any place in a mine is found to be dangerous, all approaches to the place shall be kept securely fenced off so that it cannot be entered inadvertently.

(2) Where it is necessary to prevent danger to the public, every tank or reservoir shall be securely fenced.

152. **Dangerous parts of machinery.**---Every fly wheel and all exposed and dangerous parts of the machinery of whatever kind used in or about a mine shall be kept securely fenced, guarded or cased in such a manner as may be necessary to prevent accident.

CHAPTER-XII
PITHEAD BATH

153. Provisions of pithead baths.—(1) The owner of every coal mine shall construct thereat a pithead bath in accordance with plans prepared in conformity with these rules and approved by the competent authority:

Provided that-

- (a) the competent authority may, in exceptional cases, with the concurrence of the Secretary, grant exemption from this requirement to mines the resources of which are not sufficient to enable to make provision of adequate supply of water for pithead baths;
- (b) the competent authority may grant exemption in respect of any mine on production of a certificate from the Inspector concerned that its productive capacity will be exhausted within the next three years, subject to such conditions, as may be determined, requiring the provision of alternative bathing facilities of a temporary character;
- (c) in a mine with a number of openings, the owner may install more pithead baths than one:

Provided that the total number of shower baths installed and of latrines and urinals provided shall not be less than is required to conform with sub-rule (2) of this rule and with rule 159; and

- (d) if the competent authority is satisfied that no inconvenience will be caused to the mines concerned if a single pithead bath is provided to serve neighboring mines of category "A" or "B" he may authorize the owners of such mines to provide a single pithead bath to serve such mines, which shall for the purposes of sub-rule (3), be deemed to be a single mine with an average monthly output equal to the combined average monthly output of the individual mines.

(2) Pithead baths as aforesaid shall be constructed within six month of the coming into force of these rules.

(3) Every pithead bath shall be provided with shower baths on the following scales, namely:

"Category A" mine: 10 for men and 4 for women

"Category B" mine: 20 for men and 8 for women

"Category C" mine: 24 for men and 10 for women

"Category D" mine: 40 for men and 16 for women

Explanation: (i) For the purpose of this rule-

- (a) "Category A mine" means a coal mine, the average monthly output of which exceeds 500 tons but does not exceed 2,500 tons;
 - (b) "Category B mine" means a coal mine, the average monthly output of which exceeds 2,500 tons but does not exceed 10,000 tons;
 - (c) "Category C mine" means a coal mine, the average monthly output of which exceeds 10,000 tons but does not exceed 20,000 tons; and
 - (d) "Category D mine" means a coal mine, the average monthly output of which exceeds 20,000 tons.
- (ii) The average monthly output of a mine shall be calculated on the basis of the figures of coal risings of the previous calendar year.

154. **Standards of construction for pithead bath.**---Every pithead bath shall conform to the following standards of construction, namely:

- (a) it shall be well-designed and substantially constructed building with separate bath cubicle and ancillary facilities for men and women, so laid out as to provide proper segregation of the sexes;
- (b) it shall be built in brick-in-cement mortar with a roof of cement concrete to conform to any other type of prescribed construction;
- (c) the floors and any interior surfaces of the walls which are liable to become wet shall be cement plastered with special finish or tiles or furnished in any other prescribed manner so as to provide an impervious and clean surface:

Provided that the walls need to be so treated only up to height of 1.8 meters from floor levels; and

- (d) each bath cubicle shall be designed for the use of one person at a time only and shall have a floor area of not less than 1.2 square meters and shall contain a shower bath with proper fittings for turning the water on and off:

Provided that in the case of pithead bath which was in existence prior to the issue of these rules, the competent authority may permit the continued use of bath cubicles for the use of more than one person if the floor area provided in respect of each shower bath is not less than 1.2 square meters.

155. **Water for pithead baths.**---(1) Water shall be provided at a pressure equivalent to a head of not less than 3.0 meters at the shower.

(2) When pit water is used, it shall be treated in the prescribed manner before use.

(3) Proper arrangement shall be made to the satisfaction of the competent authority for the drainage or disposal of used bathwater.

156. Lighting.---Every pithead bath shall remain open at all times of the day and night and provision shall be made for lighting.

157. Attendants.---(1) At every pithead bath the owner shall appoint male attendant and a female attendant to supervise the pithead baths intended for men and women respectively.

(2) Separate rooms shall be provided close to the bathing cubicles for the use of male and female attendants.

158. Locker rooms.---(1) Separate locker rooms for clean and pit clothes shall be provided at each pithead bath with the prescribed type of locker installed for the use of each men and women entitled to use the bath:

Provided that until such time as the competent authority so directs in writing, combined locker and waiting rooms of adequate size may be provided for men and women respectively in lieu of separate locker rooms for clean and pit pot.

(2) The owner of the mine shall be responsible for the adequate maintenance of locker rooms and shall provide suitable washing arrangements for pit clothes.

(3) Each miner to whom locker is allotted shall provide his own padlock and key therefore.

(4) The locker room shall be maintained at all times in clean and sanitary conditions.

159. Sanitary facilities.---(1) Every pithead bath shall be provided with sanitary latrines of the prescribed type on the following scale, namely:

“Category A” mine: 4 for men and 2 for women

“Category B” mine: 6 for men and 3 for women

“Category C” mine: 8 for men and 4 for women

“Category D” mine: 14 for men and 5 for women

(2) Every pithead bath shall be provided with urinals of the prescribed type on the scale of one for every fifty persons employed in mine.

160. Cleanliness.---(1) All bath cubicles, locker rooms, latrines and urinals shall be maintained at all times in a clean and sanitary conditions.

(2) The owner of the mine shall make arrangements for the sale at each pithead of soap and mustard oil at a price not exceeding what the owner has paid thereof.

161. **Authority empowered to inspect.**---The competent authority or a person authorized by him in this behalf shall be responsible for the inspection of the pithead baths and for ensuring that the provisions of these rules are complied with.

162. **Repeal and savings.**---(1) The Coal Mines Regulations, 1926 and the Pithead Bath Rules, 1946 are hereby repealed.

(2) Notwithstanding the supersession of the Coal Mines Regulations, 1926 and Pithead Bath Rule, 1946, anything done, action taken, orders issued under the above referred superseded regulations and rules, so far as is not inconsistent with the provisions of these rules, be deemed to have been done, taken or issued under these rules and shall have effect accordingly.

(3) Any documents referring to the superseded regulations and rules shall be construed as referring to the corresponding provisions of these rules.

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SCHEDULE

[See sub-rule (2) of rule 3]

Code of Signs

BRICKS, STONE OR CONCRETE VENTILATION					
STOPPINGS	....	....	.....	.....	<u>I</u>
FIRES DAMS OF SEALS	....	....	....	....	<u>IXI</u>
WATER DAMS	....	....	....	....	<u>W</u>
DOORS	....	....	....	....	<u>D D</u>
REGULATORS	....	....	....	....	<u>R</u>
AIR CROSLING	....	...	....	....	<u>Σ-B</u>
TELEPHONES	....	....	....	....	<u>O</u>
					O
UNDERGROUND AMBULANCE STATION IN RED					<u>+</u>
DIRECTION OF AIR CURRENT	...	....	....	....	<u>↗</u>

SECRETARY TO
GOVERNMENT OF THE KHYBER PAKHTUNKHWA
MINERALS DEVELOPMENT
DEPARTMENT