

# The Sindh Government Gazette

PUBLISHED BY AUTHORITY

---

KARACHI MONDAY, FEBRUARY 2, 1987

---

PART I

GOVERNMENT OF SIND  
LABOUR AND COOPERATION DEPARTMENT

NOTIFICATION

Karachi, the 10<sup>th</sup> November, 1986

No.Lab(l)20-5/77-I.- In exercise of the powers conferred by section 29 of the Mines Act, 1923 and with reference to this Department's Notification No. Lab(l)20-5/77-I, dated 4<sup>th</sup> March, 1986, the Government of Sind are pleased to make the following regulations:-

CHAPTER-I  
PRELIMINARY

Short title, extent and commencement:

1. (1) These Regulations may be called the Sind Coal and Metalliferous Mines (Supplementary) Regulations 1986.

(2) They shall apply to Coal Mines and metalliferous mines and shall have effect, notwithstanding any provisions contained in the Coal Mines Regulations, 1926 and Metalliferous Mines Regulations, 1926.

(3) This chapter shall come into force on such date as the Government may by notification in the official Gazette, appoint and different dates may be appointed for different provisions or for different classes or groups of mines or for different classes of persons or for different areas.

Definitions:

2. In these regulations, unless there is anything repugnant in the subject or context:

- (a) "Act" means the Mines Act 1923;
- (b) "employee" means a person employed in the mine;
- (c) "form" means a form appended to these regulations;
- (d) "Government" means the Government of Sind;
- (e) "mine" means a Coal or metalliferous mine;
- (f) "schedule" means a schedule to these regulations;
- (g) "section" means a section of the Act;
- (h) "supervision staff" means the staff described in section 24;
- (i) "trainer" means an experienced workman of appropriate category employed on actual operations;

- (j) "training" means instructional and practical training in operations in or at the mine or in any matter incidental to mining and includes imparting of lectures, practical demonstration in seminars and symposium; and
- (k) "training officer" means the person appointed as such with such qualifications as may be determined by Government and includes an Inspector.

## CHAPTER-II

### APPOINTMENT AND QUALIFICATIONS OF WELFARE AND SAFETY OFFICERS

Appointment of Welfare and Safety Officer:

3. The owner, agent or manager of every mine where two hundred and fifty or more persons are ordinarily employed shall appoint a Welfare and Safety Officer:

Provided that the Chief Inspector may, if satisfied that two or more mines are closely situated, authorize in writing the appointment of a Welfare and Safety Officer for more than one mine.

Qualifications for appointment of Welfare and Safety Officer:

- 4. No person shall be appointed as Welfare and Safety Officer unless he possesses:
  - (a) a degree in Mining Engineering or equivalent from a recognized University or Institute;
  - (b) practical experience of not less than two years in development or exploitation of minerals;
  - (c) adequate practical experience of dealing with personnel welfare problems in any industrial undertaking;
  - (d) first aid certificate of St: Jhon Ambulance Association or other Society or body approved by Government; and
  - (e) a knowledge of the language understood by the majority of the employees.

Temporary appointment of Welfare and Safety Officer by Chief Inspector:

5. The Chief Inspector may, pending appointment of a qualified Welfare and Safety Officer, by order in writing, authorize any person whom he may consider competent, to act as Welfare and Safety Officer of any mine notwithstanding that such person does not possess the qualifications or experience prescribed in that behalf by regulation 4.

Performance of duties of Welfare and Safety Officer:

6. Where by reason of temporary absence, illness or other similar causes the Welfare and Safety Officer is unable to perform his duties, the owner, agent or manager of the mine shall authorize in writing a person whom he considers competent to act in his place:

Provided that no such authorization shall have effect for a period in excess of thirty days except with the previous consent of the Chief Inspector.

Notice of appointment, authorization, discharge or dismissal of Welfare and Safety Officer:

7. A written notice of every appointment, authorization discharge or dismissal of a Welfare and Safety Officer and of the date thereof, shall be sent by the owner, agent or manager of the mine to the Chief Inspector within seven days from the date of such appointment, authorization, discharge or dismissal.

Duties of Welfare and Safety Officer:

8. The duties of Welfare and Safety Officer shall be:
- (i) to establish contacts and hold consultations with a view to maintain harmonious relations between the management and the employees;
  - (ii) to bring to the notice of the management the welfare problems of all or any employees; and endeavour to secure their expeditious redress;
  - (iii) to help the management in regulating the grant of leave with wages and explain to the employees the provisions relating to leave with wages and other leave privileges and to guide the workers in the matter of submission of applications for grant of leave for regulating authorized absence;
  - (iv) to supervise welfare provisions, statutory or otherwise such as housing facilities, shelters, canteens, welfare and recreation facilities, children's education of the employees and to advise the manager of any defects or improvement needed in any welfare provision;
  - (v) to promote relations between the management and employees to ensure better productivity and improvement in working conditions;
  - (vi) to bring to the notice of the manager any unsafe equipment or practice in the mine which is dangerous to the safety or health of the employees;
  - (vii) to educate the employees in the necessity and the proper use of protective equipment and clothing and breathing apparatus;
  - (viii) to organize and supervise for the employees in the mine training in first aid to the injured;
  - (ix) to arrange the training of employees before and in course of their employment for imparting knowledge of the operations at which they are to be or are employed, of the duties they are to perform, of the rules and regulations, bye-laws or orders which apply in respect of their duties and of unsafe practices which they are to avoid;
  - (x) to organize committees on the matters of safety, welfare and production so as to ensure better productivity with high standard of safety; and
  - (xi) to perform any other duty connected with the welfare and safety of employees as assigned to him by the manager.

Requirement of training:

9. (1) Such number of the supervising staff as may, from time to time, be required by the Chief Inspector shall undergo training.

(2) The employee required to undergo training under sub-regulation (1) shall submit his particulars in form 'A' within one month from the date he is so required.

Maintenance of record:

10. The Chief Inspector shall maintain record in respect of all members of the supervisory staff:

(a) who intend to receive training; and

(b) who received training and have been issued certificates in token thereof.

Place of training:

11. As far as possible, the training shall be imparted at centrally located mine, or place fixed by the Chief Inspector.

Medium of instruction:

12. The medium of instructions for the training shall be Urdu or any other local vernacular.

Trainees on duty:

13. The members of the supervisory staff who are required to undergo training shall be relieved off by their respective employer for the training and the period of training of such employees shall be treated as duty.

Non-attendance of trainees:

14. Every employee required to undergo training shall complete such training unless he is prevented from doing so by circumstances beyond his control, and in such case he shall complete the training at any subsequent occasion as may be required by the Chief Inspector.

Procedure for nomination of trainees:

15. (1) The person once imparted a particular category of training shall not be renominated for the same category of training, unless all other members of the supervisory staff in that organization have received the said training.

(2) In the case of any dispute between the employer and the employee regarding the nomination of a person for particular category of training, the decision of Training Office shall be final.

Appeal against order of training Officer:

16. Any person aggrieved by any order made under this chapter may within thirty days of such orders prefer an appeal to the Chief Inspector whose decision shall be final.

CHAPTER-III  
VOCATIONAL TRAINING  
PART-I  
PERSONS TO BE TRAINED

Persons to be trained and to be exempted from the training:

17. (1) The vocational training shall, from time to time, be imparted to all employees except:

- (a) the persons employed or to be employed for the purposes of saving life or property or dealing with circumstances arising out of an accident;
- (b) the persons holding positions enumerated below being persons employed in a confidential capacity or in a position of supervision or management, namely:
  - (i) manager, under manager, underground manager, assistant manager, ventilation officer and welfare and safety officer;
  - (ii) mining, electrical and mechanical engineer;
  - (iii) overman, foreman, sirdar and mate;
  - (iv) mechanical and electrical foreman and electrical supervisor;
  - (v) surveyor and assistant surveyor;
  - (vi) medical officer, chemist, assayer, metallurgist and welfare or personnel officer; and
  - (vii) any other person, by whatever name called who in the opinion of the Chief Inspector holds a position of supervision or management;
- (c) shotfirer and blasters;
- (d) clerks, accountants and register keepers;
- (e) the persons who have undergone a course of training which is a part of study at an institution approved by the Government in this behalf;
- (f) the persons undergoing a course of the training in the mine as mining apprentices under the personal supervision of an official of the mine; and
- (g) apprentice mechanics or apprentice electricians, if they have undergone an approved course of training at a mine mechanisation centre or other institution approved by the Chief Inspector in this behalf:

Provided that the exemption granted to the persons specified in clauses (d), (e), (f) and (g) shall be subject to the condition that the said persons shall undergo a refresher training as specified in regulation 22.

(2) The Chief Inspector may, by order, for reasons to be recorded in writing and subject to such conditions as he may specify therein, exempt any person or class or category of persons from undergoing any training under this chapter.

Disputes regarding training to be decided by the Chief Inspector:

18. If any question arises as to whether a particular person or class or category of persons is required by this chapter to undergo training or not, the same shall be referred to the Chief Inspector, for decision.

Standard of training:

19. The Chief Inspector may issue such instructions not inconsistent with these regulations, as he may deem fit, to ensure that the training imparted at the various training centres confirms, to certain uniform standard and every such training shall be in accordance with such instructions.

## PART-II GENERAL VOCATIONAL TRAINING

Scope and standard:

20 (1) Every person proposed to be employed in a mine on the surface or in open cast working shall unless he has held any such previous employment, before he is so employed, undergo a course of theoretical and gallery training as specified in the First schedule:

Provided that in respect of such class or kind of work as the Chief Inspector may, from time to time, by notification, specify every person proposed to be employed thereto shall, before he is so employed, undergo a further course of practical training on actual operation for a period of not less than six working days.

(2) Every person proposed to be employed below ground in a mine shall, unless he has held any such previous employment, undergo:

(a) a course of theoretical and gallery training as specified in the Second schedule;  
and

(b) a course of practical training on actual operations for period of not less than twelve working days by working under the direct supervision of a trainer:

Provided that every such person proposed to be employed in a mine wherein safety lamps are required to be used (hereinafter called gassy mine) shall, before he is so employed, undergo a further course of training about the dangers of inflammable gas and methods of dealing with the same as specified in the Third schedule.

Training of persons previously employed.

21. Before a person who has previously worked in mines only on the surface or in open cast working is employed below or before a person who has previously worked below ground in non-gassy mines only is employed below ground in a gassy mine, he shall undergo such additional courses of training as specified in sub-regulation (2) of Regulation 20.

PART-III  
REFRESHER TRAINING

Scope and standard of refresher training.

22. Whenever a person returns to employment on the surface or in open cast workings or to employment below ground in a mine, after an absence from such employment for a period exceeding one year he shall, within one month of his joining that employment, undergo refresher training as detailed in the Fourth Schedule, which shall include a minimum of:

- (a) three safety lectures and demonstrations in the case of employment on the surface or in open cast workings;
- (b) six safety lectures and demonstrations in addition to the training specified in clause (a) in the case of employment below ground in a gassy mine;
- (c) six lectures and demonstrations about the dangers of inflammable gas and methods of dealing with the same, in addition to the training specified in clause (a) and (b) in case of employment below ground in a gassy mine.

Training of persons already employed.

23. Every employee shall on the coming into force of this regulation, undergo the refresher training as specified in regulation 22, and it shall be sufficient compliance with this regulation if before the expiry of every year from such commencement, at least one-fifth of the persons so employed are given such training:

Provided that every person employed below ground in a gassy mine shall, within a period of one year from the coming into force of this regulation, undergo at least that part of the refresher training as is specified in paragraph 3 of the Fourth Schedule.

Arrangement for refresher training.

24. The refresher training shall be so arranged that the persons who have to undergo training can attend the same conveniently either before or after their normal working hours.

PART-IV  
TRAINING OF SPECIAL CATEGORIES OF EMPLOYEES

Training of timberman.

25. Every person who is newly employed as timberman in a mine, or who has not worked as a timberman in a mine for a period of six months immediately preceding his employment or re-employment, as the case may be, shall, before he is so employed or re-employed, undergo a course of training in timber as specified in the Fifth schedule in addition to the course of training specified under part-II or part-III of the chapter, as the case may be.

Training of persons in handling of explosives.

26. (1) Every person other than a qualified shotfirer or blaster, who is likely to be employed on a job which involves handling of explosives shall before he is so employed, in addition to the course of training specified under part-II or part-III of this chapter, as the case may be, undergo a course of training in the handling and use of explosives, as detailed in the Sixth schedule, and every person who has undergone the said training shall undergo the training again before such employment if he has not worked in handling explosives of a continuous period of six months or more:

Provided that in the case of a metalliferous mines having open cast workings only, the course of training may be confined to not less than four lectures and demonstrations covering only such items of the Sixth schedule as refer to open cast working and general principles of shotfiring.

(2) Every person employed on handling of explosives shall undergo the training within a period of one year from the date of commencement of this regulation.

Training of persons on shotfirings.

27. (1) Every person eligible to appear at the shotfirer's Certificate of Competency examination and who intends to appear at the said examination within the succeeding three months, shall, before he appears for the examination, undergo the training as detailed in the Seventh Schedule in addition to other trainings.

(2) The training under this regulation shall be arranged that the persons concerned may attend the same conveniently either before or after their normal working hours, and every person who though qualified to fire shoots has not worked as a shotfirer undergo the training again within one month of such employment.

(3) Notwithstanding anything contained in sub-regulation (1) in the case of persons, working in metalliferous mine having open cast of working only, it shall be sufficient if the course of training is confined to not less than eight lectures and demonstrations covering only such items of the Seventh schedule as refer to open cast workings and general principles of shotfiring.

Training of other categories of persons.

28. The Chief Inspector may by general or special order, require that every person, other than that exempted under sub-regulation (1) of regulation 17, to be newly employed in a mine in such kind or class of work, as may be specified therein, shall undergo a specified course of training.

Periodical training in gas testing.

29. (1) Every person holding a gas-testing certificate shall once in every year and every person eligible to appear at the gas-testing certificates examination and who intends to appear at the said examination within the succeeding three months, shall before he appears for the examination, undergo a course of training as detailed in the Eighth schedule.

(2) The training under this regulation shall be so arranged that the persons concerned can attend the same either before or after their normal working hours.

#### PART-V

#### TRAINING CENTRES AND ARRANGEMENTS FOR TRAINING

Training centres.

30. The owners, agents or managers of every mine shall provide and maintain a training centre which shall be adequate for the purpose of imparting the training required to be underground by the persons who are employed or to be employed in that mine:

Provided that a common training centre may be provided and maintained in respect of two or more mines by the owners, agents or managers thereof.

Arrangement for the training centre.

31. Every training centre shall have such staff, equipment and other facilities as may be approved by the Mining Board from time to time.

Training Officer.

32. (1) Every training centre shall be placed under the charge of a whole time or part time training officer as may be specified by the Chief Inspector.

(2) Where training officer is unable to perform his duties by reasons of temporary absence, illness or other cause, the owner, agent or manager, as the case may be, may authorize in writing any other person to act in his place:

Provided that the authorization shall, except in a case where the person so authorized possesses the qualifications and experience required for the training officer, cease to have effect on the expiry of 30 days from the date of the authorization unless an order in writing has been obtained from the Chief Inspector or Inspector for the continuance of such person beyond the said period.

(3) A written notice of every appointment, authorization, discharge, dismissal, resignation or termination of service, of a training officer and of the date thereof shall be sent by the owner, agent or manager to the Chief Inspector within seven days from the date of such appointment, authorization, discharge, dismissal, resignation or termination of service, as the case may be.

Duties of training officer.

33. (1) It shall be the duty of the training officer-
- (i) to organize and supervise the training given to every person undergoing training under him in pursuance of these regulations;
  - (ii) to maintain record of the training to every person and to furnish weekly reports to the manager on the progress of the persons undergoing training;

- (iii) to maintain records of the supervision in respect of the practical training on actual operations referred to in regulation 20; and
- (iv) to discharge such other duties as may be necessary for the proper compliance of these regulations.

(2) Every training officer shall keep a record of his work and shall at the end of the every year, forward to the Chief Inspector, through the owner, agent or manager of the mine concerned a summary of the report of his work during the year.

Qualification of trainer.

34. (1) No person shall function as a trainer unless he has attended not less than six lectures on safety in mines, as may be specified for the purpose and approved by the Chief Inspector.

(2) Trainers shall be selected only from amongst persons, who in the opinions of the owner, agent or manager of the mine, are safety minded and have an aptitude for giving guidance and practical training to other persons.

Duties of trainers and persons undergoing training.

35. (1) A trainer shall be responsible for the safety of the persons undergoing training under him.

(2) The trainer shall apart from discharging his normal duties, see that the persons put under his charge for training, pick up work, understand the dangers inherent in the job and develop habits which would ensure safety in mines.

(3) The trainer shall see that the persons undergoing training under him move within the mine along with him.

(4) Every trainer shall show to the persons undergoing training under him, the quickest and safest routes of exit from the sections where he is likely to work.

(5) Every person undergoing training shall, while under training comply with, the directions of the trainer under whom he is put in charge.

Training Allowance.

36. Every trainer shall, in addition to his normal wages, be paid by the owner, agent or manager a training allowance of two rupees per trainee for every day a trainee has worked under the supervision:

Provided that a maximum of four trainees may be placed under the charge of trainer at a time.

PART-VI  
ALLOWANCE OF TRAINEES AND ISSUE OF CERTIFICATES

Trainee.

37. Every person to be newly employed in a mine, while undergoing training in accordance with these regulations, shall for all purposes be a trainee.

Stipend to trainees.

38. (1) Every person while undergoing training under part-II of this chapter or under regulation 25 or 28 shall be paid by the owner, agent or manager, a daily allowance for each day of attendance of an amount equivalent to the wages (inclusive of allowances) which will be payable to him on employment after completion of the training, subject to a maximum of ten rupees per day:

Provided that the maximum aforesaid shall not apply in the case of a person already working in a mine while undergoing training in accordance with regulation 21.

(2) Every person undergoing training under part-II of this chapter or under regulations 26, 27 or 29 shall be paid by owner, agent or manager an allowance of three rupees per lecture attended by him.

Certificate to trainees.

39. (1) Every person who undergoes a course of training prescribed in these regulations shall, on completion of the training be interviewed by the training officer and if the said officer is satisfied as to the progress and performance of the trainee, he shall grant a certificate in form B or form C, as the case may be, and the certificate so granted be countersigned by the owner, agent or manager.

(2) Where the Training Officer is not satisfied with the progress or performance of any trainee, he shall report the same to the manager, who may either discharge him or, if he thinks fit, arrange to give him further training.

(3) The cost of the photograph to be fixed on the certificate in form B or form C shall be borne by the owner or agent.

(4) A person who has obtained a certificate in successful completion of the training shall be eligible for absorption in any mine to the category of the post for which he has been trained.

Duplicate Certificate.

40. If any person proves to the satisfaction of the Training Officer that he has lost the certificate granted to him under regulation 39, the Training officer may, on payment of the cost of the photograph to be affixed on the certificate, grant to him a copy of the certificate with the word "DUPLICATE" stamped there across.

Certificate to be delivered to the management.

41. Every employee shall within such time as may be specified by the manager, deliver, the certificate issued to him under these regulations, whether prior to joining the employment or during the employment, to the manager of the mine who shall keep the certificate in safe custody and issue a receipt for the same, and on the termination of the employment the certificate so deposited shall be returned to the employee.

## PART-VII MISCELLANEOUS

Inspection.

42. The Chief Inspector or any Inspector is order to ascertain whether the provisions of these regulations and of any orders made thereunder are being complied with enter, inspect and examine any training centre or any part thereof and make such examination or enquiry as he thinks fit.

Power to relax.

43. Where in the opinion of the Chief Inspector, the conditions pertaining to a mine or part thereof are such as to render compliance with any provisions contained in these regulations unnecessary or impracticable, he may, by order in writing and subject to such conditions as he may specify therein, exempt the mine or part thereof, as the case may be from the said provisions.

44. Where a training centre is established by Government, the owner, agent or manager of a mine shall, before the commencement of the training, pay to training centre in respect of each employee of the mine admitted for training in any course in such centre, such fee as may, from time to time, be fixed by the Government for such course.

## CHAPTER-IV MEDICAL EXAMINATION

Medical examination before and after entering into service.

45. (1) The owner, agent or manager of the mine shall arrange appropriate medical examination by a suitably qualified medical practitioner of each person before he is employed and every employee shall undergo such examination at intervals not exceeding one year and finally of termination of employment.

(2) Any employee, who refused to get himself medically examined shall not be permitted to work in the mine.

(3) The cost of the medical examination under this regulation shall be borne by the owner.

Report and record of medical examination.

46. (1) The report of the annual medical examination shall be forwarded to the Chief Inspector within one month of such examination giving details of measure taken for the convalescence or against the aggravation of positive cases detected.

(2) A comprehensive record of annual medical examination shall be kept at the mine office for each employee.

Fitness certificate.

47. The medical fitness certificate in pursuance of the medical examination under regulation 44, shall be kept at the mine office and token bearing the number of certificate shall be given to the worker.

#### CHAPTER-V OCCUPATIONAL DISEASES

48. Where any person employed in a mine contracts any disease notified as occupational disease under sub-section (1) of section 20, by the Government in the official Gazette, the owner, agent or manager shall within three days of his being informed of the disease give notice thereof in form D to the Chief Inspector, the Inspector and the District Magistrate.

Fees of the certifying doctor.

49. A certifying Doctor appointed under sub-section (2) of section 20-A, shall be paid by owner of fee of sixteen rupees for each clinical examination of the person suffering from an occupational disease and such fees for pathological and other examinations as may from time to time be fixed by the Government.

#### CHAPTER-VI MACHINERY AND PLANT AND ELECTRICITY

Use of certain Machinery below ground.

50. (1) No internal combustion engine or steam boiler of electrically energized device shall be used below ground in a mine except with the permission in writing of the Chief Inspector and subject to such conditions as he may specify therein.

(2) In every mine or part of mine to which regulation 123 of the Coal Mines Regulation 1926, applies or which is gassy only flame proof electric apparatus and equipment shall be used below ground unless otherwise provided for under the electricity Rules, 1937.

General provisions about construction and Maintenance of Machinery.

51. All parts and working gears, whether fixed or movable including anchoring and fixing appliances, of all machinery and apparatus used as or forming part of the equipment of a mine and all foundations in or to which any such appliances are anchored or fixed shall be of

good constructions, suitable material, adequate strength and free from visible defects and shall be properly maintained.

Apparatus under pressure.

52. (1) All apparatus used as or forming part of the equipment of a mine which contains or produces air, gas, steam or any other fluids at a pressure greater than atmospheric pressure shall be so constructed, installed and maintained as to obviate any risk of fire, bursting, explosion or collapse or the production of noxious gases.

(2) Every air receiver shall be fitted with safety valve and an air-gauge which shows pressure in excess of the atmospheric pressure.

(3) Before an air-receiver is caged in or put in commission initially or after any renewal or repairs the engineer or other competent person shall subject it to a hydraulic test at a pressure at least one and a half times the maximum permissible working pressure and the test shall be repeated at intervals of not more than three years, and record thereof, shall be maintained in a bound paged book kept for the purpose and shall be signed and dated by the person carrying out the test.

(4) The supply of air for air compressors shall be drawn from a source free from dust and fumes.

Precaution regarding moving part of machinery.

53. (1) Every winch or windless shall be provided and use with a stopper, pawl or other reliable holder.

(2) Every flywheel and every other dangerous exposed parts of any machinery used, as or forming part of equipment of mine shall be adequately fenced by suitable guards substantial construction to prevent danger and such guards, shall be kept in position while the parts of the machinery are in motion or in use, but they may be removed for carrying out any examination, adjustment or repairs if adequate precautions are taken.

(3) No person shall, or shall be allowed to repair, adjust, clean or lubricate machinery in motion.

(4) No person shall be allowed to shift or adjust a driving belt or rope while the machinery is in motion unless a proper mechanical appliance is provided for the purpose.

(5) No person is close proximity to moving machinery shall wear, or be permitted to wear, loose outer clothing.

(6) No unauthorised person shall enter any engine room or any way interfere with the engine.

Engine rooms and their exits.

54. Every engine motor and transformer room on the surface and every room in which highly inflammable materials are stored on the surface shall be kept clean and be provided with at least two exits, which shall be properly maintained and kept free from obstruction.

Working and examination of machinery.

55. (1) No machinery shall be operated otherwise than or under the constant supervision of a competent person.

(2) In every mine to which regulation 123 of Coal Mines Regulations, 1926 applies, or which is gassy, no person shall be appointed to supervise or operate any electrical machinery, apparatus or appliances other than a telephone or signalling device or an electric lamp or light unless he holds a gasting certificate.

(3) Every person in charge of any machinery apparatus or appliance shall, before commencing the work, see that it is in proper working order and if he observes any defect therein, he shall immediately report the fact to the manager, engineer or other competent person.

(4) Every person in charge of an air-receiver shall see that no extra weight is added to the safety valves and that the permissible pressure of air is not exceeded.

(5) A competent person or persons appointed for the purpose shall, once at least in every seven days, make a thorough inspection of all machinery and plant in use, so that the plant and machinery shall be allowed to function after the defects, if any, are removed, and the record of such inspection shall be kept in a bound paged book kept for the purpose.

Safety and soundness of building.

56. Every building within the premises of a mine where machinery and plants are installed shall be constructed subject to the conditions that:

(a) the plan of the proposed building is prepared by an approved Architect engineer/agency;

(b) the building or such structures shall be properly lighted, ventilated, and be free from dust, fume and smoke coming out of machinery and plant.

Electricity.

57. The generation, storage, transformation, transmission and use of electricity, and the use of all electrical apparatus and electrical cables in mines shall strictly be in accordance within the provisions of the electricity Act, 1910 and the rules made thereunder.

CHAPTER-VII  
TRAVELLING ROADS AND SAFETY OF PERSONS  
ON HAULAGE ROADS

Size of travelling roads.

58. The size of travelling road in a mine, through which load is carried by human agency shall not be less than 1.67 metres high, 1.51 metres wide at bottom and 1.21 metres wide at top:

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

59. (1) Every length of road and 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 into a drum, pulley, sheave or roller except with a lever or other proper appliance.

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

(a) at the top or 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 effective contrivance at a distance greater than the length of a set or train of tubs; provided that such distances shall not exceed the length of a set or train of tubs by more than 10 metres;

(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) in intercoupled position so that they do not remain simultaneously in effective;

(d) in attachment, behind an ascending tub or set or train of tubs, of a backstay, drag or other suitable contrivance for preventing the tubs, set or train of tubs running back and where an endless rope or chain is used the provisions of this clause shall be deemed to be satisfied if suitable automatic catches or other effective contrivances are provided at suitable intervals along the track (provided that Chief Inspector may, by 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 books, jazz-rails or other suitable contrivances to prevent runaway in the forward direction;
- (f) tub-rails at intervals of not more than 250 metres, 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 metres in length, effective mechanical or electrical means of transmitting signals from every stopping place on the roadway to the place at which the machinery working the ropes is operated; provided that the Inspector 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 signals is effective or not, it shall be referred to the Chief Inspector for decision.

Code of signals:

60. (1) In addition to any other signals the following code of signals shall be used and strictly observed:-

ONE RAP STOP when in motion.

TWO RAPS LOWER or haul in slowly.

THREE RAPS START when at rest.

FOUR RAPS RAISE or haul out slowly.

(2) 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 roadway.

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

Telephone signals:

61. Where, in any mine blow ground, a system of haulage roadways (and conveyors, if any) extend to a distance of more than 600 metres from the shafts 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 may, by an order in writing, require the provision and maintenance of telephone communication in any other case also.

Telephone and signal wiring:

62. Where telephones or electrical signals are provided:

- (i) adequate precautions shall be taken to prevent signals and telephone wires coming into contact with other cables and electrical apparatus;
- (ii) signal wires shall be supported on insulators and shall not be energised at more than 25 volts;
- (iii) contact makers shall be so constructed as to prevent accidental closing of the circuit; and
- (iv) in every mine or part thereof to which regulation 123 of the Coal Mines Regulations, 1926 applies, all signalling or telephonic communication circuits shall be constructed, installed, protected operated and maintained in such a manner as to be intrinsically safe.

General Safety measures:

63. (1) At places where telephone receivers are installed or where signals of safety contrivances are regularly operated, every person using the telephone or operating any such signals or safety contrivances shall be afforded adequate protection against the tubs moving out of control.

(2) Where any person is allowed to work or pass while the haulage is in motion, manholes of not less than 1.8 metres in height and 1.2 metres in depth, and not less than 0.75 metre but not more than one metre in width, for refuge shall be provided where the gradient is less than 1 in 6, at intervals of not more than 20 metres and in any other case at intervals of not more than 10 metres:

Provided that where the roadway is less than 1.8 metres in height the manhole may be made to the full height of the roadway:

Provided further that the Chief Inspector may, by an 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 clear of obstruction, and white washed from inside and for a distance of not less than 0.3 metre around the aperture.

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

(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 and subject to such conditions as he may specify therein, permit manholes to be at greater intervals or of other dimensions.

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

(7) The 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 and 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 roadway.

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

Travelling roadways:

64. (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) be not less than 1.8 metres high throughout;

(b) where the inclination exceeds 30 degrees from the horizontal, be provided with suitable steps or ladders:

(c) where the inclination exceeds 45 degrees from the horizontal, be provided in addition to steps or ladders with hand rails or ropes so as to ensure safe travelling: and

(d) where the inclination exceeds 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 10 metres measures along the slope.

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

(4) Where persons using a travelling roadway have to cross a conveyor or a haulage worked by mechanical means or gravity, a suitable crossover 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 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.

Tubs:

65. (1) On every tub there shall be provided and maintained at each coupling and a strong buffer projecting beyond the end so arranged that when two such tubs are in tendom, the inner most ends shall not be less than 20 centimetres.

(2) On every side tipping tub in use, safety catches shall be provided to prevent accidental tipping and 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, set of train of tubs, and the attachment between any two tubs in a set of train, shall be of a type approved in writing by the Chief Inspector by a general or special order and be 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 14 days, by a competent person appointed for the purpose 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.

Movement and control of tubs:

66. (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 10 metres.

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

Provided that the Inspector, 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 exceeding 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 manager and a list of all persons so authorized shall be maintained.

#### Coupling of tubs:

67. (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 locomotive 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.

#### Brakes of haulage engine:

68. Every haulage engine shall be provided with two independent effective brakes.

#### Haulage ropes:

69. (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 kept 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.

#### Road-way conveyor:

70 (1) Any roadway conveyor shall be so installed that:

- (a) between the conveyor and one side of the roadway, there is a travelling space not less than one metre wide free from obstruction;
- (b) the conveyor or any part thereof does not scratch against wooden props or supports;
- (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 30 metres, 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, requirements of transmitting signals in the reserve 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.

Examination of haulage of engine:

71. (1) It shall be the duty of a competent person to examine carefully:

- (a) once at least 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.

Examination of haulage and travelling roadways.

72. It shall be the duty of the overman 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.

Locomotives.

73. (1) Where regulation 123 of the Coal Mines Regulation, 1926 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 authorised in writing to do so by the 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.

Movement of Wagons.

74. (1) No person who has not attained the age of 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 sides 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-regulation (2), shall pass immediately in front of wagons moving under bins and screens, not 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 footplace, 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 railways wagons are specially placed so as to afford a thoroughfare, such thoroughfare shall be not less than five metres in width.

(10) No material shall be placed or dumped within 1.2 metres 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.

Fencing and gates.

75. (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 15 metres of any haulage road or tramline, a substantial fence shall be provided and maintained between such buildings and the haulage road or tramline.

## CHAPTER-VIII PERSONAL PROTECTIVE EQUIPMENTS

Safety hats.

76. (1) No person shall be allowed to work or to be present at any place where a danger of head injury exists unless he is provided with and wearing a suitable safety hat.

(2) Every person employed at surface during day time shall be provided suitable hats to protect against sun.

Safety goggles.

77. (1) No person shall be allowed to work or to be present at any place where a danger of injury to be eye from flying or falling particles or objects exists, unless he is provided with an wearing an impact type safety goggles.

(2) No person shall be allowed to perform electric or ecteylens gas cutting or welding or to be present near such operations unless he is provided with an wearing a suitably shaded safety goggles.

Safety gloves.

78. No person shall be allowed to handle rough or moving surface unless he is provided with and wearing suitable hand gloves.

Safety shoes.

79. No person shall be allowed to work at any place where there is a reasonable danger of foot injury, unless he is provided with and wearing safety shoes.

Loose clothing.

80. No person while wearing neckties, gantlet type gloves and baggy, loose or ragged clothing shall be allowed to work or to be present around moving machinery.

Breathing apparatus.

81. (1) No person shall be allowed to enter any place where noxious gases are present or there is deficiency or oxygen unless he has been provided with and is wearing a breathing apparatus of suitable type.

(2) In all working places where the atmosphere is likely to become irrespirable by any reason sufficient number of breathing apparatus of suitable type and in good working order shall be always available to allow escape of all persons employed at that place and also to conduct rescue and recovery if so necessary, and all persons employed at such place shall be adequately trained in the use of such breathing apparatus.

(3) No person, wearing a self-contained breathing apparatus, shall enter or to be allowed to enter an irrespirable atmosphere unless he is accompanied by another person wearing a breathing apparatus.

Masks.

82. Canister and filter type marks shall be used as breathing apparatus only in that irrespirable atmosphere for which they are designed and shall not be used in a place where the oxygen content of the atmosphere is less than 17% by volume.

Hose masks.

83. (1) No person shall use or be allowed to use a fresh air hose mask unless he is wearing a safety belt with a life line and another person is appointed with no other duties except to be in constant communication with the persons wearing the mask and to ensure that he gets an uninterrupted supply of air.

(2) The air being supplied to the mask whether from atmosphere, storage cylinder or compressor shall be tested to be free of toxic vapours.

Dusk masks.

84. (1) Persons actively engaged in any operations connected with mine producing dust and constant inhaling of which may result in long injury shall wear dust masks.

(2) Where a dispute arises about the injurious nature of dust the decision of the Inspector in writing assigning reasons therefor shall, subject to the appeal to Chief Inspector be final.

#### FIRST SCHEDULE (See Regulation 20 (1) )

Course of Theoretical and Gallery training for surface and open cast workers.

1<sup>st</sup> day (Surface):

Talk: Organization, time keeping the need for discipline and punctuality, other matters of general interest. Training in First Aid.

Visit: Attendance room, Pit Head bath, Canteen, Rest shelter.

2<sup>nd</sup> day (Surface):

Talk: Rules, standing orders etc in force at the mine, safety in the vicinity of surface machinery. Training in First Aid.

Visit: Tramway and sidings, Haulage rooms, Electrical gears, workshop.

3<sup>rd</sup> day (Surface):

Talk: Benching in quarries, Dressing of overhangs, Fencings First Aid and Hygiene.

4<sup>th</sup> day (Surface):

Talk: Shotfiring and safety regulations Training in First Aid.

Visit: Practical demonstration of talking shelter etc.

5<sup>th</sup> day (Surface):

Talk: Legislation and duties of work persons. Training in First Aid.

Visit: "What's Wrong".

Practical Work: Laying of tracks.

6<sup>th</sup> day:

Talk: Mine official and their duties, oral test.

SECOND SCHEDULE  
(See Regulation 20 (2) (a) )

Course of theoretical and Gallery training for workers below ground.

1<sup>st</sup> day:

Talk: Method of transport below ground, signalling manholes and other safety appliances on haulage roads, Training in First Aid.

Visit: Underground pit bottom, travelling roadway, second outlet, haulage tramming roadways, stations and fencing below ground.

Practical work: Tub manipulation, coupling, tramming, lockering, rerailing of tubs and signalling, laying of pipes and track.

2<sup>nd</sup> day:

Talk: Face work, roof control, testing of roof, support regulation. First Aid Hygiene. Training in First Aid.

Visit: Underground working faces, underground latrines, First Aid stations.

Practical work: Prop setting, chock building and withdrawal.

3<sup>rd</sup> day:

Talk: Ventilation, lighting, legislation and duties of work persons. Training in first Aid.

Visit: Underground ventilation and lighting devices, Fan houses, air crossings, stoppings, regulator, doors etc.

Practical work: Erecting brattices, ventilation of blind ends, practical demonstration of fire fighting devices, detection of noxious gases.

4<sup>th</sup> day:

Talk: Shotfiring and safety regulation, causes and prevention of fire underground, care of lamps, Training in First Aid.

Visit: Underground practical demonstration of talking shelter etc.

Practical work: Building of sand bag stoppings.

5<sup>th</sup> day:

Talk: Mine gases (Particularly carbon monoxide, carbon dioxide and methane) and dangers therefrom. Testing for the same. General revision. Training in First Aid.

Practical work: Cleaning of galleries.

6<sup>th</sup> day:

Talk: Mine official and their duties, oral test.

Visit: Underground "What's wrong".

### THIRD SCHEDULE (See Regulation 20 (2) (b) Proviso)

Course of special additional training for entrants to gassy mines.

1<sup>st</sup> day:

Talk: Dangers of inflammable gas. Effects of inflammable gas in different percentage. Gas caps, difference between combustion and explosion after dam, its effects. Method of testing for inflammable gas with flame safety lamps.

Demonstration: Gas Caps, difference between combustion and explosion.

Visit: Visit to safety lamps cabin to see how lamps are maintained, cleared etc. and to study construction of safety lamps.

2<sup>nd</sup> day:

Talk: Principle of construction of flame safety lamps and of flame proof electrical equipment. Assembly of flame safety lamps. Care of safety lamps during use, dangers of opening or tampering with safety lamps.

Demonstration: Effect of wire gauge on flame.

Practical work: Testing for gas.

Visit: Visit to workshop to see flame proof equipment.

3<sup>rd</sup> day:

Talk: Duties of workers in gassy mine and where inflammable gas exists, dangers of smoking, contrabands.

Visit: Visit (1) to lamp cabin to see arrangements for checking lamps before issue and after receipt and (2) to the mine entrances to see arrangement for checking safety lamps and for searching of contrabands.

Practical work: Cleaning and assembling safety lamps.

4<sup>th</sup> day:

Talk: Explosion and health hazards from dust. Methods of suppressing dust. Water sprays. Cleaning and stone dusting. Wet cutting, wet drilling. Use of respirators. Occurrences of inflammable gas. Method of removing gas. Necessity for good ventilation at the face ventilation device.

Visit: Underground visit to see dust suppression arrangements and measure. Surface and underground visit to see ventilation devices.

Practical work: Erection of brattices. Ventilation of blind ends.

5<sup>th</sup> day:

Talk: Dangers of shotfiring gassy mines. Precaution underground visit to see shotfiring.

6<sup>th</sup> day:

General revision. Oral test.

FOURTH SCHEDULE  
(See Regulation 22)  
COURSE OF REFRESHER TRAINING

(Each talk to be followed by discussion. Duration of each talk and discussion to be not less than two hours).

1. For surface/open cast workers.

Talk: 1: Mine Organisation, mine keeping, need for discipline and punctuality and other matters of general interest.

Talk: 2: Rules, standing orders in force at the mine. Safety in the vicinity of machinery.

Talk: 3: Benching in quarries. Dressing of overhangs. Fencing First Aid and Hygiene.

2. Additional for underground workers.

Talk: 4: Dangers from haulage. Manholes and other safety appliances Signalling

Talk: 5: Testing of roof. Dressing of roof and overhangs. Supports, Chocks, bars and props.

Talk: 6: Ventilation, control devices. Danger from old working. Causes and prevention of fires, Noxious gases.

Talk: 7: Dangers of shotfiring. Safety precaution.

Talk: 8: Legislation. Duties of workman. Fencings.

Talk: 9: General revision and discussion.

3. Additional for gassy mine workers.

Talk: 10: Occurrence of inflammable gas. Danger from inflammable gas. Combustion and explosion. After camp, its effects.

Talk: 11: Principle of construction of flame safety lamps and of flame proof equipment. Can caps. Methods of testing for gas.

Talk: 12: Duties of worker where inflammable gas exists. Contrabands. Danger of tampering with safety lamps. Methods of removing gas. Necessity of good ventilation at the face.

Talk: 13: Explosion and health hazards from dust. Methods of suppressing dust.

Talk: 14: Dangers of shotfiring in gassy mines.

Talk: 15: General revision and discussion.

FIFTH SCHEDULE  
(See Regulation 25)  
COURSE OF TRAINING FOR TIMBERMAN

(Training in First Aid to be given to every trainee who has not already undergone such training).

1<sup>st</sup> day:

Talk: Type of rocks and their characteristics. Dangers from fall of ground. Need for artificial support. Use of protective equipment.

Talk and practical work: Handling and transport of timber including lowering in inclined and shafts. Correct methods of lifting and sifting. Stacking of timber.

2<sup>nd</sup> day:

Talk: Different material for support, their strength and characteristics. Application. Fire danger from timber and cutting.

Talk and practical work: Tools for timbermen, their selection, care and maintenance, Sylvester prop withdrawal.

3<sup>rd</sup> day:

Talk: Type of support in galleries and drives. Support of faulted, disturbed and weak grounds. Clearing of falls of roof and precting supports. Roof support. Side support.

Talk and practical work: Talking measurements for putting supports. Selection of timber size. Preparing lids. Laggings and packings.

4<sup>th</sup> day:

Talk: System of support in depillaring areas/stops and longwal faces. Systematic timbering Rules both in development of depillaring areas.

Talk and Practical work: Sawing of timber, Erection of short props and cogs. Withdrawal of supports.

5<sup>th</sup> day:

Talk: Type of supports in shafts (including sinking shafts), raises and winzes, repair of such supports. Erection of barricades. Erection of brattices and temporary stoppings. Erection of fences.

Talk and Practical work: Erection of tall props and cogs. Lagging of sides.

6<sup>th</sup> day:

Talk: Maintenance of supports. Tightening. Testing of roofs and sides. Typical accidents in timbering and to timbermen.

Talk and Practical work: Erection of timber on steep gradients and supporting irregular places. Miscellaneous jobs for timbermen.

SIXTH SCHEDULE  
(See Regulation 26)  
CODES OF TRAINING IN THE HANDLING AND USE OF EXPLOSIVES

1<sup>ST</sup> day:

Talk: What is an explosive? General composition of explosives. Differences between low and high explosives. Low explosives and their firing. Safety and its burning speed.

2<sup>nd</sup> day:

Talk: High explosives, their detonation. Electric shotfiring.

3<sup>rd</sup> day: Danger from explosives, charging and firing of shots. Clearing of fumes produced during shotfiring.

4<sup>th</sup> day:

Talk: Danger from blasting in gassy mines. Cracks in shot holes. Permitted explosives.

5<sup>th</sup> day:

Talk: Dangerous nature of explosives. Care in handling explosives. Talking shelter. Storage of explosives on surface and below ground. Issue of explosives. Return of un-used explosives.

6<sup>th</sup> day:

Talk: General revision and discussion.

SEVENTH SCHEDULE  
(See Regulation 27)  
COURSE OF TRAINING OF SHOTFIRING

1<sup>st</sup> day:

High and low explosives. Difference between them. Their constituents.

2<sup>nd</sup> day:

Shotfiring accessories. Safety fuse and its burning speed. Detonators.

3<sup>rd</sup> day:

Provisions of regulation etc. relating to transport handling and use of explosives.

4<sup>th</sup> day:

Storage of explosives, both above and below ground. Issue of explosives. Return of un-used explosives.

5<sup>th</sup> day:

Correct drilling and placing of shot holes. Charging and firing of shots. Below out shots. Taking shelter.

6<sup>th</sup> day:

Danger from explosives in gassy mines. Permitted explosives. Precautions during shotfiring in gassy mines. Dangers from cracks in shot holes.

7<sup>th</sup> day:

Dealing with misfires. Provisions of regulations relating to duties of shotfirers.

8<sup>th</sup> day:

Examining working places and roadways after shotfiring. Clearing roadways of dust and fumes after shotfiring.

9<sup>th</sup> day:

Firing of shots singly and in rounds, use of delay action detonators. Testing of circuits.

10<sup>th</sup> day:

Blasting with Ammonium Nitrates. Fuel oil explosive. Precautions.

11<sup>th</sup> day:

Having blasting in open cast mines. Blasting with liquid oxygen precautions.

12<sup>th</sup> day:

General revision and discussion. Writing of reports.

EIGHTH SCHEDULE  
(See Regulation 29)  
COURSE OF TRAINING IN GAS-TESTING

Demonstration to be arranged with every talk and each talk to be followed by discussion. The duration of each talk and discussion to be not less than two hours.

1<sup>st</sup>. Talk:

Physical and chemical properties of inflammable, occurrence of inflammable gas. Gas outbursts. Danger from inflammable gas indifferent percentages. Difference between combustion and explosion.

2<sup>nd</sup> Talk:

Other mine gases; their properties and effects. After wamp, its composition and effects.

3<sup>rd</sup> Talk:

What makes a safety lamp, safe? construction and assembly of safety lamps, both of flame and electric type. Care of safety lamp. Opening, cleaning, assembling and testing of safety lamps.

4<sup>th</sup> Talk:

Method of testing for inflammable gas with flame safety lamps. Gas caps. Accumulation and percentage tests. Precautions where gas is present.

5<sup>th</sup> Talk:

Provisions of regulations relating to safety lamps and to the presence of inflammable gas. Other means of testing for inflammable gas.

General revision and discussion.

FORM-A  
(See Regulation 9 (2))

To,

The Chief Inspector of Mines, Sind, Karachi.

Application Containing Particulars of Trainee.

1. Full Name \_\_\_\_\_
2. Father's Name \_\_\_\_\_
3. Village \_\_\_\_\_
4. Thano/Police Station \_\_\_\_\_ P.O \_\_\_\_\_ District \_\_\_\_\_
5. His present address \_\_\_\_\_
6. Postal Address \_\_\_\_\_
7. Name of Mine \_\_\_\_\_
8. Name of Owner \_\_\_\_\_
9. Postal Address of Owner \_\_\_\_\_
10. No. of Sirdar/Proficiency certificate \_\_\_\_\_
11. Name of Mine and name of owner where trainee was last employed.
12. Capacity in which he served \_\_\_\_\_
13. Name of other mine if any, where trainee has been employed in some category  
\_\_\_\_\_
14. Place where the applicant actually resides and its distance from mine.  
\_\_\_\_\_

Space for affixing the  
photograph of trainee  
  
\_\_\_\_\_

Signature of Trainee \_\_\_\_\_  
Signature of owner/agent of company  
with name who recommended for training

(Specify below whether non-gassy or gassy mine)

Signature or left hand thumb.  
Impression of the person trained.

Countersignature of the Agent or Manager.

Insert dates between which the training was undergone.

Delete whichever is not applicable.

FORM-B  
(See Regulation 39 (1) )

Certificates of training for employment in a mine on surface and in open cast workings/below ground in non-gassy mine.

I hereby certify that Mr. \_\_\_\_\_ S/o \_\_\_\_\_  
Village \_\_\_\_\_ (Thano) Police Station \_\_\_\_\_

P.O \_\_\_\_\_ District \_\_\_\_\_ Province \_\_\_\_\_  
has between \_\_\_\_\_ duty undergone the training required under Chapter-III of the  
(Name of Province) Vocational Training Regulations 1977, for employment in a mine on surface  
and in open cast workings/and below ground in non-gassy/and gassy mines.

\_\_\_\_\_  
Space for affixing the  
photograph of the  
person trained.  
\_\_\_\_\_

Signed \_\_\_\_\_  
Dated \_\_\_\_\_  
Training Officer \_\_\_\_\_  
Mine Training Centre \_\_\_\_\_

(Specify below whether non-gassy or gassy mine)

Signature or left hand thumb.

Impression of the person trained.

Countersignature of the Agent or Manager

Insert date between which the training was undergone.

Delete whichever is not applicable.

FORM-C  
(See Regulation 39 (1) )

Certificate of Fresher Training/Training of special categories of workmen.

I hereby certify that Mr. \_\_\_\_\_ S/o \_\_\_\_\_  
Village \_\_\_\_\_ Thano (Police Station) \_\_\_\_\_  
P.O \_\_\_\_\_ District \_\_\_\_\_ Province \_\_\_\_\_ has between  
\_\_\_\_\_ duly undergone the refresher/special training required under Part-III/Part-IV/  
of Chapter IV of the Sind Coal and Metalliferous Mine (Supplementary) Regulations, 1986 for  
\_\_\_\_\_

\_\_\_\_\_  
Space for affixing the  
photograph of the  
person trained.  
\_\_\_\_\_

Signed \_\_\_\_\_  
Dated \_\_\_\_\_  
Training Officer \_\_\_\_\_  
Mine Training Centre \_\_\_\_\_

(Specify below whether non-gassy or gassy mine)

Signature or left hand thumb.

Impression of the person trained.

Countersignature of the Agent or Manager

Delete whichever is not applicable.

Insert dates between which the training was undergone.

Specify here the refresher/special training undergone.

FORM-D  
(See regulation 48)

Notice of Disease notified under section 20-A of the Mines Act, 1923

---

Form \_\_\_\_\_

To,

1. The Chief Inspector of Mines \_\_\_\_\_
2. The Inspector of Mines \_\_\_\_\_
3. The District Magistrate \_\_\_\_\_

Sir,

I have to furnish the following particulars with respect to an occupational disease contracted by a person employed in the \_\_\_\_\_ mine of \_\_\_\_\_ (owner).

1. PARTICULARS OF MINES ETC.

(i) Situation of Mine:

Village \_\_\_\_\_ Post Office \_\_\_\_\_

Police Station \_\_\_\_\_

Sub-Division \_\_\_\_\_

District \_\_\_\_\_

(ii) Mineral worked \_\_\_\_\_

(iii) Name and postal address of owner \_\_\_\_\_

---

2. PARTICULARS OF PERSONS AFFECTED \_\_\_\_\_

(i) Name (in Block capital) \_\_\_\_\_

(ii) Caste or surname \_\_\_\_\_

(iii) Permanent address: Village \_\_\_\_\_

Police Station \_\_\_\_\_ Post Office \_\_\_\_\_

District \_\_\_\_\_ Sub-Division \_\_\_\_\_

(iv) Sex \_\_\_\_\_

(v) Date of birth (or age) \_\_\_\_\_

(vi) Occupational \_\_\_\_\_ How long engaged \_\_\_\_\_

(vii) Date of commencement of employment. \_\_\_\_\_

(a) In our mine \_\_\_\_\_

(b) In mining \_\_\_\_\_

3. PARTICULARS OF DISEASES ETC.

(i) Nature of disease from which the person is suffering \_\_\_\_\_

(ii) Date of detection of disease \_\_\_\_\_

(iii) Name, registration number and address of Medical Practitioner suspecting the disease \_\_\_\_\_.

Signature \_\_\_\_\_

Designation Owner/Agent/Manager

Dated \_\_\_\_\_

MOHAMMAD JAVED ASHRAF HUSSAIN  
Secretary to Government of Sindh

