

The Mines Rescue Rules, 1985

CONTENTS

CHAPTER I PRELIMINARY

<i>Rules</i>	<i>Pages</i>
1. Short title, application and commencement	130
2. Definitions	130

CHAPTER II RESCUE STATIONS AND RESCUE ROOMS

3. Establishment and location of rescue station	131
4. Functions of rescue stations	132
5. Establishment and location of rescue rooms	132
6. Functions of rescue room	133
7. Qualifications, experience etc. of Superintendent	133
8. Qualifications, experience etc., of Instructors	133
9. Selection of rescue trained persons for posting at rescue stations ..	133
10. Qualifications, experience etc. of rescue room incharge	133
11. Equipment	133

CHAPTER III DUTIES AND RESPONSIBILITIES OF SUPERINTENDENTS ETC.

12. Duties and responsibilities of Superintendent	134
13. Duties of Instructors	135
14. Duties and responsibilities of rescue room incharge	135
15. Duties of rescue trained persons posted at rescue station	136
16. Duties of rescue room attendant	136

CHAPTER IV ORGANISATION AND EQUIPMENT IN MINES

17. Telephone Communication	136
18. Rescue tracings	136
19. Appointment of rescue trained persons in mines, their disposition and accommodation	137
20. Selection of persons for training in rescue work	137

<i>Rules</i>	<i>Pages</i>
21. Instructions and practices etc.	137
22. Medical examination etc. of rescue trained person	138
23. Suspension of rescue trained persons	138

CHAPTER V

CONDUCT OF RESCUE WORK

24. Duties of Manager etc. in emergency	138
25. Accommodation at the belowground mine for persons engaged in rescue work	139
26. Entry into belowground mines for rescue or recovery work	139
27. Fresh air bases	139
28. Leader	139
29. Instructions to leader	140
30. Test of apparatus	140
31. Duties of leader belowground	140
32. Rescue team members and their duties	140
33. Restriction of second spell of work	141

CHAPTER VI

MISCELLANEOUS

34. Obligation of owner, agent and manager in certain situations	141
35. General management	141
36. Inspections	141
37. Power to relax	141
38. Repeal and saving	141

FORM I	142
FORM II	142
SCHEDULE I	143
SCHEDULE II	145
SCHEDULE III	147
SCHEDULE IV	148
SCHEDULE V	148
SCHEDULE VI	151
SCHEDULE VII	152
SCHEDULE VIII	153

The Mines Rescue Rules, 1985¹

In exercise of the powers conferred by clauses (r) to (t) and clauses (v) and (w) of Section 58 of the Mines Act, 1952 the Central Government, after referring the said draft to the Mining Boards constituted under the said Act and after giving such Boards a reasonable opportunity of reporting as to the expediency of making the said rules and as to the suitability thereof as required by sub-section (4) of Section 59 of the said Act hereby makes the following rules, namely:—

CHAPTER I PRELIMINARY

1. Short title, application and commencement.—(1) These Rules may be called the Mines Rescue Rules, 1985.

(2) They shall apply to belowground mines.

(3) They shall come into force on the 2nd April, 1985.

2. Definitions.—In these rules, unless there is anything repugnant to the subject or context:—

- (a) “Act” means the Mines Act, 1952;
- (b) “belowground mine” means any excavation which extends below superjacent ground;
- (c) “Board of Mining Examination” means the Board of Mining Examinations constituted under the Coal Mines Regulations, 1957 or the Metalliferous Mines Regulation, 1961 as the case may be;
- (d) “Chief Inspector” means the Chief Inspector of Mines appointed under Section 5 of the Act;
- (e) “Foreman’s Certificate” means the foreman’s certificate granted by the Board of Mining Examination;
- (f) “Inspector” means an Inspector of Mines appointed under the Act, and includes a district magistrate when exercising any power or performing any duty of an Inspector which he is empowered by the Act to exercise or perform;
- (g) “Instructor” means a person appointed as such under sub-rule (2) of Rule 3;
- (h) “Manager” means a person appointed under Section 17 of the Act;
- (i) “Manager’s Certificate” means the manager’s certificate granted by the Board of Mining Examinations;
- (j) “Ordinarily employed” with reference to any mine or part thereof means the average number of persons employed per day in the mine or part of mine during the preceding calendar year (obtained by dividing the number of man-days worked by the number of working days excluding rest days and other non-working days);

1. Vide G.S.R. 325(E), dt. March 29, 1985, published in the Gazette of India, Extra., Part II, Section 3(i), dt. 29th March, 1985, pp. 19-35 [No. S-65012/1/81-MI]

- (k) "Overman's Certificate" means the overman's certificate granted by the Board of Mining Examinations;
- (l) "Owner" means a person who is the immediate proprietor or lessees/or occupier of the mine or of any part thereof and in the case of a mine the business whereof is being carried on by a liquidator or receiver, such liquidator or receiver but does not include a person who merely receives a royalty, rent or fine from the mine, or is merely the proprietor of the mine, subject to any lease; grant or licence for working thereof, or is merely the owner of the soil and not interested in the minerals of the mine; but any contractor or sub-lessee for the working of a mine or part thereof shall be subject to the Act in like manner as if he were an owner, but not so as to exempt the owner from any liability;
- (m) "Principal Official" means the senior-most mine official in mining discipline on duty in the mine;
- (n) "Qualified medical practitioner" means a medical practitioner who possesses any recognised medical qualification as defined in clause (h) of Section 2 of the Indian Medical Council Act, 1956 and who is enrolled on a State medical register as defined in clause (k) of that section;
- (o) "rescue room" means a rescue room as established and main-tained, under rules;
- (p) "rescue station" means a rescue station established and main-tained under Rule 3;
- (q) "rescue trained person" means a person certified by the Superin-tendent to be rescue trained person under sub-rule (1) of Rule 21;
- (r) "Schedule" means a Schedule appended to these rules;
- (s) "Superintendent" means a superintendent of rescue station appointed under sub-rule (2) of Rule 3.

CHAPTER II

RESCUE STATIONS AND RESCUE ROOMS

3. Establishment and location of rescue station.—(1) The Chief Inspector may permit or require the owner of a belowground mine or a group of belowground mines to establish and maintain rescue station/stations with such designs and specifications and at such place/places as may be considered necessary in consultation with the owner:

Provided that where there are belowground mines belonging to more than one owner, the Chief Inspector may permit or require two or more owners to jointly establish a common rescue station:

Provided further that all the existing rescue stations as on the date of coming into force of these rules, shall continue to function for a period of three years from that date.

(2) At every rescue station there shall be appointed one Superintendent and at least two instructors and also, there shall be maintained a rescue brigade of not less than eighteen rescue trained persons.

(3) In case where the absence of the Superintendent at a rescue station exceeds 60 days, the owner shall appoint another Superintendent.

(4) The owner shall, within seven days from the date of assumption or relinquishment of charge by the Superintendent, inform the Chief Inspector and the Inspector in-charge of the region where the mine is situated (hereinafter referred to as Regional Inspector) in Form I.

4. Functions of rescue stations.—The functions of rescue station shall include:—

- (i) imparting initial training in rescue and recovery work;
- (ii) imparting refresher training to rescue trained persons;
- (iii) providing support by its own rescue teams and equipment in case of major accidents or long-lasting rescue and recovery operations; and
- (iv) carrying out the functions of rescue room in respect of these belowground mines where there is no rescue room.

5. Establishment and location of rescue rooms.—(1) At every belowground mine where, more than 100 persons are ordinarily employed belowground and there is no rescue station within its radius of 35 kms., the owner shall establish and maintain on surface close to mine entrance a rescue room:

Provided that it may be sufficient to provide one rescue room for a number of mines belonging to the same owner where:—

- (a) the total number of persons ordinarily employed in belowground workings of all such mines does not exceed 5000; and
- (b) the mines are situated within radius of 35 kms. from and connected by road with the rescue room:

Provided further that the Chief Inspector may permit the owner of a group of mines having the total number of persons ordinarily employed belowground in excess of 5000, to use the rescue room as a rescue station excepting the functions of imparting initial training in rescue work, if such rescue room is:—

- (a) equipped with requisite additional rescue apparatus including at least 15 extra sets of two hour self-contained breathing apparatus; and
- (b) placed under the charge of a person holding the qualifications prescribed under Rule 8 and a minimum of five rescue trained persons of whom at least one shall hold the qualifications prescribed under Rule 10, are posted thereat.

(2) Notwithstanding anything contained in sub-rule (1), in the case of belowground coal mines having a fiery seam or gassy seam of second or third degree, the Chief Inspector may, for reasons to be recorded in writing require the owner to establish and maintain a rescue room irrespective of the number of persons ordinarily employed belowground therein.

(3) At each rescue room, there shall be appointed such number of rescue trained persons as may be necessary and one of them possessing the qualifications

specified in Rule 10 shall be made in-charge of the rescue room. At least one rescue trained person shall always be in attendance at the rescue room.

6. Functions of rescue room.—A rescue room shall provide facilities for the storage, assembly, testing and adjustments of breathing apparatus and other rescue equipment and apparatus and for their speedy transport to mines.

7. Qualifications, experience etc. of Superintendent.—After coming into force of these rules, no person shall be appointed as Superintendent unless he:—

- (i) is a rescue trained person;
- (ii) has 5 years practical experience of belowground work in mines; and
- (iii) holds a First Class Manager's Certificate of a type not restricted to opencast workings.

8. Qualifications, experience etc., of Instructors.—After the coming into force of these rules no person shall be appointed as Instructor unless he:—

- (i) is a rescue trained person;
- (ii) has 3 years practical experience of belowground work in mines; and
- (iii) holds a Manager's certificate of a type not restricted to opencast workings.

9. Selection of rescue trained persons for posting at rescue stations.—(1) After coming into force of these rules the rescue trained persons for posting at a rescue station shall be selected, from amongst the rescue trained persons employed in mines served by the rescue station, by the Superintendent in consultation with the managers of such mines.

(2) A person selected under sub-rule (1) shall be posted for not less than one year and not more than five years at a rescue station at any one time.

10. Qualifications, experience etc. of rescue room incharge.—No person shall be appointed as rescue room incharge unless he:—

- (i) is a rescue trained person;
- (ii) has 3 years practical experience of belowground work in mines; and
- (iii) holds a Manager's, Overman's or Foreman's Certificate of a type not restricted to opencast workings.

11. Equipment.—(1) At every rescue station there shall be provided and maintained for immediate use, apparatus and equipment as specified in Schedule I.

(2) At every rescue room there shall be provided and maintained for immediate use, apparatus and equipment as specified in Schedule II.

(3) At a belowground mine, where no rescue room is located, apparatus and equipment as specified in Schedule III, shall be maintained at the entrance of such mine.

(4) Self-contained breathing apparatus provided at a rescue station and that at rescue rooms under it shall be of the same type and make.

(5) The following apparatus and equipments provided in pursuance of sub-rules (1), (2) and (3), shall be of a type or standard approved by the Chief Inspector, namely:—

- (a) breathing apparatus;
- (b) smoke helmets and apparatus serving the same purpose;
- (c) reviving apparatus;
- (d) electric safety lamps and flame safety lamps;
- (e) gas detectors; and
- (f) self rescuers.

(6) All breathing apparatus and every flow meter shall be adjusted and tested and the purity of oxygen for use in breathing apparatus shall be tested in such manners as are laid down in Schedule IV.

(7) In case of an accident in a belowground mine arising out of the use of any rescue apparatus, a written report thereof shall be sent, within 24 hours of such accident, by the manager of the mine to the Chief Inspector and Regional Inspector in Form II appended to mines rules.

(8) In case of an accident in a rescue station or rescue room arising out of the use of any rescue apparatus, a written report thereof shall be sent, within 24 hours of such accident, by the Superintendent to the Chief Inspector and Regional Inspector in Form II aforesaid.

(9) No absorbent charges, chemicals, self-rescuer and gas detector tubes shall be kept at a rescue station, rescue room or belowground mine for use beyond the expiry date, which shall be legibly marked on the boxes thereof.

CHAPTER III

DUTIES AND RESPONSIBILITIES OF SUPERINTENDENTS ETC.

12. Duties and responsibilities of Superintendent.—(1) The Superintendent shall be in overall control of the rescue station and the rescue rooms served by such rescue station.

(2) The Superintendent shall ensure that all the rescue equipment and apparatus kept at the rescue station, rescue rooms and at the entrance of the belowground mines under his control are:—

- (a) maintained in perfect working order;
- (b) inspected by Instructors at specified intervals; and
- (c) tests are conducted and adjustments are made.

(3) The Superintendent shall ensure that adequate stock of spare parts and supplies are kept for maintaining rescue equipment and apparatus in perfect working order.

(4) The Superintendent shall countersign the records maintained under sub-rule (1) of Rule 13.

(5) The Superintendent shall ensure that persons selected for initial training and those undergoing refresher training receive the prescribed course of instructions and practices and are issued the certificates for the same.

(6) The Superintendent shall make periodical inspection of rescue rooms and the apparatus and equipment under his control.

(7) In the event of an emergency at a belowground mine, Superintendent shall perform such rescue and recovery work as may be assigned to him by the manager or in his absence by the principal official present at the surface. He shall within three days of completion of the rescue or recovery work send a report thereof to the Regional Inspector or the Chief Inspector.

(8) The Superintendent shall maintain in a bound paged book a diary and shall record therein the results of each of his inspections and also the action taken by him to rectify the defects observed during inspection.

(9) The Superintendent shall submit to the Chief Inspector and to the Regional Inspector detailed report on the functioning of the rescue station and rescue rooms under his control in the preceding year on or before the 20th day of February of the succeeding year with particular reference to:—

- (a) type and number of equipment and apparatus provided and maintained;
- (b) Superintendent, instructors, rescue room incharge and rescue brigades in position, as on 31st December;
- (c) number of rescue trained persons at each belowground mine served by the rescue station and number of such persons given refresher practices and medically examined, with results thereof;
- (d) particulars of emergencies attended;
- (e) any other relevant matter.

13. Duties of Instructors.—(1) Under the direction of Superintendent the Instructor shall:—

- (a) impart course of instructions and practices to persons selected for training in rescue and recovery work as well as to rescue trained persons and maintain a record thereof; and
- (b) make inspection, test and adjustment of rescue equipment and apparatus and maintain a record thereof.

(2) In the event of an emergency at a belowground mine, Instructor shall perform such rescue and recovery work as may be assigned to him by the manager or in his absence by the principal official present at the surface.

(3) Instructor shall not leave the rescue station without prior permission of the Superintendent.

(4) In the absence of the Superintendent, the Instructor shall be incharge of the rescue station.

14. Duties and responsibilities of rescue room incharge.—Every rescue room incharge shall:—

- (a) display prominently a list of mines served by his rescue room;

- (b) maintain the equipment and apparatus kept at the rescue room in perfect order;
- (c) maintain a proper record of all rescue equipment and apparatus kept at the rescue room and inspection thereof; and
- (d) not allow any unauthorised person to enter into, or permit any unauthorised person to take out any apparatus or equipment from the rescue room.

15. Duties of rescue trained persons posted at rescue station.—The rescue trained persons shall—

- (a) obey order of the Superintendent and Instructor and assist them in discharge of their functions;
- (b) attend to messages, telephone calls and wireless and maintain record thereof;
- (c) maintain the rescue station in neat and tidy condition;
- (d) maintain the equipment and apparatus kept at the rescue station in perfect order;
- (e) perform rescue and recovery work in mines; and
- (f) not leave rescue station without obtaining permission from the Superintendent.

16. Duties of rescue room attendant.—Every rescue room attendant shall—

- (a) not leave the rescue room until relieved by a substitute;
- (b) not allow any unauthorised person to enter in or to take out any apparatus or equipment from the rescue room;
- (c) attend to telephone calls and maintain a record thereof;
- (d) maintain the rescue room in neat and tidy condition; and
- (e) obey orders of the rescue room incharge and assist him in discharge of his functions.

CHAPTER IV

ORGANISATION AND EQUIPMENT IN MINES

17. Telephone Communication.—Every mine shall be connected telephonically with the rescue room and rescue station serving the mine. Wherever practicable wireless communication shall also be provided:

Provided that where there is no telephonic communication system, the Chief Inspector may by an order in writing and subject to such conditions as he may specify therein, approve any other means of communication.

18. Rescue tracings.—There shall be kept at a belowground mine, more than three legible tracings of the working of the mine up to a date not before three preceding months. The tracing shall show the system of ventilation in the mine, and in particular, the general direction of aircurrent, every point where the quantity of air is measured, every air-crossing, ventilation-door stopping, booster fan and any other principal device for regulation and distribution of air, fire-dams, preparatory stoppings, every fire-fighting equipment, every water-dam with dimensions and

other particulars of construction, every pumping, telephone and ambulance station, every room used for storing inflammable material, reserve stations and every haulage and travelling roadway. The signs specified in Schedule V shall be used in the said tracings.

19. Appointment of rescue trained persons in mines, their disposition and accommodation.—(1) The manager of a belowground mine, where more than 100 persons are ordinarily employed belowground, shall ensure that at least 5 rescue trained persons are readily available at surface at any time.

(2) The manager of a belowground mine, where more than 500 persons are ordinarily employed belowground, shall also ensure that persons on a scale of one man for every 100 persons or part thereof are rescue trained persons.

(3) It shall be the responsibility of the owner to provide suitable accommodation:—

- (i) close to the rescue station to the Superintendent, Instructors and members of rescue brigade;
- (ii) close to rescue room to rescue room incharge rescue trained persons and attendants attached to it; and
- (iii) close to belowground mine entrance to rescue trained persons other than those specified in (i) and (ii).

(4) There shall be provided at a belowground mine effective bell or other arrangements, as may be approved by the Regional Inspector, for immediate summoning of rescue trained persons.

20. Selection of persons for training in rescue work.—No person shall be selected for training in rescue work, unless:—

- (i) he is between 21 and 30 years of age and holds a valid First-aid certificate of the standard of the St. John Ambulance Association (India);
- (ii) he is certified by the Manager that he has sufficient underground experience for the purpose of rescue work;
- (iii) he is certified by a qualified medical practitioner, as may be designated by the Manager after examination in accordance with Schedule VI, to be free from any organic disease or weakness and to be fit for undertaking rescue work; and
- (iv) he is considered by the Superintendent of Rescue Station, after such examination and interview as he considers necessary, to be suitable for rescue work with breathing apparatus.

21. Instructions and practices etc.—(1) Every person selected for training in rescue work shall undergo the course of instructions and practices as set out in Part I of Schedule VII until he has passed and has been certified as efficient by the Superintendent.

(2) Rescue trained person shall undergo practices and receive instructions as set out in Part II of Schedule VII.

(3) A record shall be kept at every rescue station of all persons undergoing practices and receiving instructions. Such record shall contain:—

- (i) the date and the character of each practice;
- (ii) the condition of each person after the practice, and if anything abnormal was observed in his condition, whether it was due to a defect of the apparatus or to that person; and
- (iii) any other relevant information.

22. Medical examination etc. of rescue trained person.—Every rescue trained person shall be re-examined once at least in every twelve months by a qualified medical practitioner as may be designated by the manager in accordance with Schedule VI, and in case he is declared medically unfit, he shall cease to be a rescue trained person with effect from the date he has been so declared.

23. Suspension of rescue trained persons.—If in the opinion of the owner, agent, manager or an Inspector a rescue trained person is incompetent or is guilty of negligence or misconduct in the performance of his duties, the owner, agent, manager or Inspector as the case may be, may after giving such person an opportunity to give a written explanation, suspend him from or debar him from undertaking any rescue and recovery work.

CHAPTER V

CONDUCT OF RESCUE WORK

24. Duties of Manager etc. in emergency.—(1) On receiving information of any emergency likely to require the services of a rescue team, the manager, or in his absence the Principal Official present at the surface, shall immediately:—

- (a) inform the rescue room or the rescue stations serving the mine for necessary assistance;
- (b) summon rescue trained person employed in the mine;
- (c) inform the owner, agent or manager of nearby mines to make available the services of rescue trained persons employed therein, if so required;
- (d) inform the rescue station about the nature of the occurrence; stating whether assistance would be needed from the rescue station;
- (e) summon medical assistance; and
- (f) send information of the occurrence to the Regional Inspector.

(2) All rescue and recovery work at a belowground mine shall be conducted under the control, direction and supervision of the manager of the mine or in his absence the principal official present at the surface:

Provided that in the event of a major emergency, such as ignition, explosion, big underground fire or an accident involving a number of persons, the manager or the principal official shall, in taking decisions regarding rescue and recovery operations, take guidance from a group consisting of a Senior Official of the management, a representative each from the Director-General of Mines Safety, concerned rescue station and the recognised Union of the Workers, so however that

he must take necessary decisions and direct the operations as the situation warrants, without waiting for the constitution or deliberations of the said group.

25. Accommodation at the belowground mine for persons engaged in rescue work.—Whenever rescue trained persons are engaged in rescue or recovery work at a belowground mine, there shall be provided at such mine suitable accommodation for storage and charging of apparatus required for that work. Such accommodation shall be situated at a convenient place near the entrance in use, and shall be properly ventilated and lighted. Adequate quantity of cool and wholesome drinking water shall be provided at such accommodation; and proper canteen facilities shall also be provided for the rescue workers.

26. Entry into belowground mines for rescue or recovery work.—(1) No person shall be allowed to enter a belowground mine or part thereof which is unsafe for the purpose of engaging in rescue or recovery work, unless authorised by the manager or in his absence by the principal official of the mine present at the surface. Only rescue trained persons shall be permitted to enter the mine for the purpose of using self-contained breathing apparatus.

(2) During the course of rescue or recovery work, person or persons shall be stationed at the entrances to the belowground mine and shall keep a written record of all persons entering and leaving such mine, and the time thereof.

27. Fresh air bases.—(1) As soon as possible, base or bases shall be established in fresh air, as near to the irrespirable zone or zones as safety permits. Every such base shall, if possible be connected by telephone:—

- (i) if the base is belowground, to the surface; or
- (ii) if the base is on the surface, to the shaft bottom.

(2) Except in cases where the delay involved may result in danger to life, rescue trained persons shall not proceed beyond any place where a base is to be established until there have been provided at such base:—

- (a) two persons, of whom one shall be a qualified medical practitioner if practicable, and other shall be a rescue trained person;
- (b) a spare team with rescue apparatus, ready for immediate service;
- (c) one or more reviving apparatus, oxygen revivers etc.;
- (d) first aid box and stretcher;
- (e) means of testing for carbon monoxide;
- (f) a hygrometer; and
- (g) two flame safety lamps.

(3) Whenever men are already at work beyond the fresh air base, there shall be provided at the base as soon as possible the persons, apparatus and equipments specified in sub-rule (2).

28. Leader.—Every rescue team engaged in work with breathing apparatus in a mine shall be under a leader who shall be appointed by the Superintendent.

29. Instructions to leader.—Prior to sending a rescue team underground, the Superintendent or a person authorised by him shall give clear instructions to the leader of the team as to where it shall go and what it shall attempt.

30. Test of apparatus.—Before proceeding belowground the leader shall test or witness the testing of self-contained breathing apparatus of the team for leakage. No such apparatus shall be used unless it is found safe. He shall check the equipment of his party, and immediately before entering irrespirable atmosphere shall make sure that all breathing apparatus are working properly.

31. Duties of leader belowground.—(1) The leader shall not engage in manual work. He shall give his attention solely to directing the team and to maintaining its safety. He shall examine the roof and supports during the journey, and if there is any likelihood of fall at any place along the road-way, shall not proceed further until the team has made the place secure.

(2) The leader shall keep the team together and shall not allow any member of the team to stray.

(3) If the atmosphere is clear, the leader shall, when passing the junction of two or more roadways, clearly indicate the route by means of arrow marks in chalk. If the atmosphere is obscure, the leader shall see that a life line is lead in from the fresh air base, and shall not allow any member of the team to move out of reach of that line; or, if that course is impracticable, he shall not proceed until every roadway branching off from the route is fenced across the whole opening.

(4) When using rescue apparatus, the leader shall carry a watch, shall record the pressure of the compressed oxygen at intervals of 20 minutes or so, and shall commence the return journey in ample time. During travelling he shall adopt the pace of slowest member if any member of the team is in distress, he shall immediately return to the fresh air base with the whole team.

(5) The leader shall not permit any member of the team using breathing apparatus in a mine to remain at work at any one time for a period longer than one and half hours or such other period as may be specified by the Chief Inspector in respect of the breathing apparatus being used.

32. Rescue team members and their duties.—(1) The number of persons in any rescue team using breathing apparatus in a mine shall not be less than five and not more than six, including the leader.

(2) In case there is no provision in any of the breathing apparatus carried by the rescue team for an extension for supply of oxygen to another person in an emergency, the team shall carry a self-rescuer.

(3) Members of rescue team shall in general use the signals prescribed in Schedule VIII in communicating to one another.

(4) In travelling with rescue apparatus on, every member of the team shall keep the place given to him when numbering off. If the pace is too quick or if distress is felt, the member shall at once call attention to the fact.

(5) Every member of a rescue team engaged in work with breathing apparatus in a mine shall obey the orders of the leader of the team.

33. Restriction of second spell of work.—No person shall commence a second or subsequent spell of work in irrespirable atmosphere without being examined and found fit by a qualified medical practitioner.

CHAPTER VI

MISCELLANEOUS

34. Obligation of owner, agent and manager in certain situations.—Whenever emergency arises at a belowground mine, whether served by a rescue room or rescue station or not, the owner, agent or manager may seek assistance or additional assistance as the case may be, from the nearest rescue room or rescue station and in such an event:—

- (a) all possible assistance shall be promptly rendered by the rescue room or rescue station; and
- (b) the owner of the mine shall pay to the owner of the rescue station or rescue room, rendering such assistance, the full cost of rescue services and facilities borrowed.

35. General management.—It shall be the responsibility of the owner to establish, maintain and ensure proper functioning of rescue room or rescue station as required under these rules, to appoint Superintendent, Instructors, rescue room incharge, rescue trained persons, and to provide necessary rescue equipment and apparatus as may be necessary for compliance with the provisions of these rules.

36. Inspections.—(1) The Chief Inspector or other Inspector, authorised by him in his behalf or the Regional Inspector may enter, inspect and examine any rescue station and rescue room and make such examination or inquiry as he thinks fit in order to ascertain whether the provisions of these rules and of any orders made thereunder are being complied with.

(2) When the belowground mines served by a rescue station or rescue room fall under the jurisdiction of two or more Regional Inspectors, the Chief Inspector may authorise any one of them for enforcement of these rules.

37. Power to relax.—Where in the opinion of the Chief Inspector, the conditions pertaining to a mine or rescue station or rescue room are such as to render compliance with any provisions contained in these rules, unnecessary or impracticable, he may by an order in writing and subject to such conditions as he may specify therein grant exemption from the said provisions.

38. Repeal and saving.—(1) The Coal Mines Rescue Rules, 1959 are hereby repealed.

(2) Notwithstanding such repeal anything done or any action taken under the said rules shall be deemed to have been done or taken under the corresponding provisions of these rules.

FORM I

[See Rule 3(4)]

Intimation of Appointment etc. of Superintendent

From

To

1. The Chief Inspector of Mines, Dhanbad — 826 001.
2. The Regional Inspector of Mines,
.....

Sir,

I have to furnish the following particulars in respect of *appointment/termination of appointment of Superintendent at rescue station of (owner)

1. Name of Superintendent
2. Qualifications (a) First Class Manager's (Coal/Metalliferous*) Certificate No.
.....
(b) Number of Certificate of Competency to undertake Rescue and Recovery
..... work
(c) First-aid Certificate No.
3. Date of assumption/relinquishment of charge
4. Address of Superintendent
Place
Date

Yours faithfully,

Signature

Owner

* Delete whatever is not applicable.

FORM II

[See Rule 11(7)]

Notice of Accident

From

To


1. The Chief Inspector of Mines, Dhanbad — 826 001.
2. The Regional Inspector of Mines,
.....

Sir,

I have to furnish the following particulars of an accident at mines/rescue station/rescue room of (owner)

- | 1. | Situation of mines/rescue station/rescue room | Name and postal address of owner | Village Post Office Police Station Sub-Division (Taluq) District |
|----|---|----------------------------------|--|
| | | | |

State Pin:

2.	Date and hour of accident	Place of location of accident/in mine/ rescue station/rescue room*	Number of persons <div style="text-align: center;">  </div>
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3. Cause and description of accident

4.	Name of persons killed/injured	Nature of employment	Age	Sex	Nature of injury/cause of death
----	--------------------------------	----------------------	-----	-----	---------------------------------

Yours faithfully

Signature

 Designation — Manager/
Superintendent

Place

Date

* Delete whatever is not applicable.

SCHEDULE I

[See Rule 11(1)]

EQUIPMENT TO BE KEPT AT A RESCUE STATION

		Nos.
A.	BREATHING APPARATUS	
1.	Two-hours self-contained breathing apparatus	54
2.	Short duration self-contained breathing apparatus	6
3.	Absorbent charges	2000
B.	RESUSCITATING APPARATUS	
1.	Resuscitating Apparatus	12
2.	Spare cylinders	8

C.	TUBE APPARATUS	
	(a) Pressure type with bellows	2
	(b) Spare helmets	2
	(c) Pressure type with fan	1
D.	ANCILLARY EQUIPMENT	
	1. Oxygen cylinders	12
	(a) Oxygen pump (Hand driven)	4
	(b) Oxygen pump (Power driven)	2
	3. Bobin meter	3
	4. Flow meter	2
	5. Universal tester	2
	6. Pressure gauge testing device	2
	7. Oxygen testing apparatus	1
	8. Apparatus testing tool kit	8
E.	LAMPS ETC. AND GAS TESTING DEVICE	
	1. Flame safety lamps with maintenance kit	8
	2. Electric safety lamps	
	(a) Cap lamps with belt	60
	(b) Charging rack for cap lamp with charger	1
F.	GAS DETECTORS	
	1. Methane detector with battery charger, if required	3
	2. Co-detector	3
	3. Co-tube	30
	4. Multi-gas detector	2
	5. Multi gas detector tubes for each of the noxious gases likely to be found in mines	20
G.	AIR AND TEMPERATURE MEASURING INSTRUMENTS	
	1. Vane Anemometer	1
	2. Velometer	1
	3. Clinical Thermometer	2
	4. Sling Whirling Hygrometer or Psychrometer	2
H.	TELEPHONE	
	1. Genophone-Portable Telephone sets	2
I.	SAFETY AND FIRST-AID EQUIPMENT	
	1. Safety helmets	60
	2. Safety belts	6
	3. First Aid Boxes	10

4.	Blankets	15
5.	Folding stretchers	12
6.	Self rescuer	12

J. FIRE FIGHTING EQUIPMENT

1.	CO ₂ fire extinguishers	4
2.	Foam type fire extinguishers	10
3.	Foam charges	50
4.	Dry powder type extinguishers	15
5.	Trailer pump	1
6.	Trailer for carrying goods	1
7.	Hose pipe	300 metres

K. MISCELLANEOUS EQUIPMENT

1.	Charging rack for car batteries	1
2.	Stop watches	3
3.	Rain gauge	1
4.	Life line	1 roll
5.	Guide line	1000 metres
6.	(a) Evacuated sampling tubes	10
	(b) Two-litre capacity stoppered sampling bottles	6
7.	Siren (hand operated)	1
8.	Siren (power operated)	1
9.	Barometer	1
10.	VHF equipment	2
11.	Rescue vans	2
12.	Station wagons	2

SCHEDULE II

[See Rule 11(2)]

EQUIPMENT TO BE KEPT AT RESCUE ROOM

		Nos.
A.	BREATHING APPARATUS	
1.	Two-hour self-contained breathing apparatus	15
2.	Short duration self-contained breathing apparatus	2
3.	Absorbent charges	50
B.	RESUSCITATING APPARATUS	
1.	Resuscitating apparatus	3
2.	Spare cylinders	3

	Nos.
C. TUBE APPARATUS	
(a) Pressure type with bellows	1
(b) Spare helmets	1
(c) Pressure type with fan	1
D. ANCILLARY EQUIPMENT	
1. Oxygen cylinders	3
2. Oxygen pump (hand driven)	2
3. Bobin meter	2
4. Universal tester (where necessary)	1
5. Pressure gauge testing device	1
6. Apparatus testing tool kit	2
7. Oxygen testing apparatus	1
E. LAMPS ETC. AND GAS TESTING DEVICE	
1. Flame safety lamps (re-lighter type) with maintenance tool kit	4
2. Electric safety lamps	
(a) Cap lamps with belts	20
(b) Charging rack for cap lamp with charger	1
F. GAS DETECTORS	
1. Methane detector, with battery charger, if required	2
2. Co-detectors	2
3. Co-tubes	10
4. Multi-gas detector	1
5. Multi-gas detector tubes for each of the noxious gases likely to be found in mines	10
G. AIR AND TEMPERATURE MEASURING INSTRUMENTS	
1. Clinical Thermometer	1
2. Sling whirling hygrometer or psychrometer	1
H. TELEPHONE	
1. Genophone-Portable Telephone sets	1
I. SAFETY AND FIRST-AID EQUIPMENT	
1. Safety helmets	20
2. Safety belts	2
3. First-aid box	4
4. Blankets	4
5. Folding stretchers	4
6. Self rescuer	4

	Nos.
J. FIRE FIGHTING EQUIPMENT	
1. CO ₂ fire extinguisher	2
2. Foam type fire extinguisher	2
3. Foam charges	20
4. Dry powder type extinguisher	5
K. MISCELLANEOUS	
1. Stop watch	1
2. Rain gauge	1
3. Life line	1 roll
4. Guide line	1000 metres
5. (a) Evacuated sampling tubes	5
(b) Two-litre capacity stoppered sampling bottles	2
6. Siren (hand operated)	1
7. Siren (power operated)	1
8. Barometer	1
9. Rescue van	1*

*Not necessary, if the rescue room is situated close to mine entrance and serves only one mine.

SCHEDULE III

[See Rule 11(3)]

MINIMUM EQUIPMENT TO BE KEPT AT THE SURFACE OF MINE WHERE NO RESCUE ROOM IS LOCATED CLOSE TO MINE ENTRANCE

1. Pressure type tube apparatus with bellows	1
2. Flame safety lamp with maintenance tool kit	1
3. (a) Co-detector	1
(b) Co-tubes	10
4. Whirling hygrometer	1
5. Safety belt	1
6. Resuscitating apparatus	10
7. First-aid box	1
8. Blankets	2
9. Folding stretcher	1

SCHEDULE IV

[See Rule 11(6)]

**ADJUSTMENTS AND TEST OF BREATHING APPARATUS,
FLOWMETER, BOBIN METER, OXYGEN ETC.**

1. Every breathing apparatus shall be thoroughly tested once at least in every month or at such shorter interval as may be recommended by the manufacturers of the breathing apparatus in a manner specified in Para 2.

2. (i) The apparatus shall be examined in respect of its general condition and particular attention shall be given to every delicate and perishable part.

(ii) The apparatus shall be tested for leakage. If any leakage is observed, the apparatus shall be deemed unsafe for use.

(iii) The pressure at which any automatic relief valve discharges shall be measured and if required so adjusted as to operate within the limits recommended by the manufacturers.

(iv) The pressure in the oxygen cylinder shall be measured.

(v) The rate of delivery of oxygen shall be measured by a flow meter, bobin meter, universal tester. If required, the reducing valve shall be adjusted to supply oxygen at a rate of flow specified by the manufacturers.

A record of such measurements and adjustments shall be kept in a bound paged register.

(vi) If an apparatus has been provided with an automatic demand valve, the pressure at which it operates shall be measured and if required adjusted as to operate within the limits recommended by the manufacturers.

(vii) Other tests and adjustments, if any, as recommended by the manufacturers shall be performed and a record thereof be kept in a bound paged register.

3. The purity of oxygen supplied for use in breathing apparatus shall be tested. No oxygen which is found to contain more than one per cent of impurities shall be used.




4. Flow-meters shall be tested for accuracy at least once in every six months and the results of every test shall be recorded.


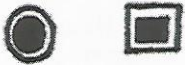

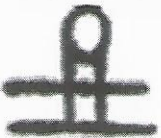









5. Where by this Schedule any particulars are required to be recorded they shall be recorded forthwith in a bound paged register kept at rescue room or rescue stations, as the case may be, and shall be signed and dated by the person making the tests and shall be countersigned by the Superintendent.


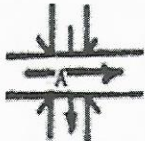

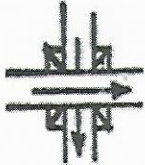
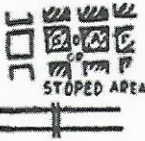









SCHEDULE V





[See Rule 18]

CODE OF SIGNS

NAME	SYMBOL	REMARK
SHAFT	 No./NAME DEPTH DIA	FOR COAL MINES ONLY
ABANDONED SHAFT	 No./NAME DEPTH DIA	-do-
INCLINE	 No./NAME	-do-

NAME	SYMBOL	REMARK
ABANDONED INCLINE		-do-
SHAFTS		FOR METALLIFEROUS MINES
ABANDONED SHAFTS		-do-
WINZES		-do-
ADITS		-do-
CROSS CUT		-do-
PILLARS AND GALLERIES		
DRIFT		IN BURNT SIENNA SHOWING GRADIENT IN BLACK
WATER PIPE LINE & HYDRANTS		IN BLUE (H INDICATING LOCATION OF HYDRANT)
STAPLE SHAFT		IN RED SHOULD STATE THE DISTANCES UP AND DOWN TO ALL INSETS
ABANDONED STAPLE SHAFT		IN RED
DYKE OR OTHER INTRUSION		IN GREEN
UNDERGROUND LEVEL		IN BLUE

NAME	SYMBOL	REMARK
WATER DAM		LETTER 'W' TO BE WRITTEN IN BLUE
AIR CROSSING		INTAKE ARROW IN BLUE AND RETURN ARROW IN RED
DOORS		IN RED BOW OF 'D' IS INDICATIVE OF DIRECTION OF OPENING OF DOOR
EXPLOSION PROOF AIR CROSSING		INTAKE ARROW IN BLUE AND RETURN ARROW IN RED
GOAF OR STOPPED AREA BRICK/STONE OR CONCRETE VENTILATION STOPPING		IN RED
DIRECTION OF AIR CURRENT		INTAKE IN BLUE RETURN IN RED
TELEPHONE	(a) SURFACE  (b) UNDERGROUND 	
FIRE DAM SEAL OR STOPPING		IN RED
EXPLOSION PROOF STOPPING		IN RED
REGULATOR		IN RED
AUXILIARY FAN/ BOOSTER FAN		IN RED
UNDERGROUND FIRST AID STATION		THICK CROSS IN RED
ENGINE HOUSE OR ROOM		

NAME	SYMBOL	REMARK
PREPARATORY ISOLATION STOPPING PUMPING STATION		IN RED
		LETTER 'P' TO BE WRITTEN IN BLUE
SAND STOWED AREA		
FIRE EXTINGUISHER/ FIRE STATION		IN RED

SCHEDULE VI

[See Rules 20 and 22]

MEDICAL EXAMINATION

1. Every person selected for undergoing training in rescue and recovery work and every rescue trained person shall be thoroughly examined medically. Particular attention shall be paid to the following requirements:—

- (1) The person shall be in good mental and bodily health and free from any physical defect.
- (2) The limbs shall be well formed and developed and the function of all limbs shall be within normal limits.
- (3) (a) The standard of distant visions without glasses shall not be less than the following:—
 - (i) Better eye . . 6/6
 - (ii) Worse eye . . 6/9
- (b) There shall be no squint in the eyes.
- (c) There shall not be any organic disease of the eyes, which is likely to affect distant vision within a period of one year.
- (d) The person shall not be suffering from nystagmus or colour blindness.
- (4) Hearing shall be good. Person shall be able to hear conversational voice from a distance of 3 metres.
- (5) (a) Respiratory system shall be sound and free from any chronic Laryngeal, bronchial and pulmonary disease.
- (b) An X-ray examination shall be made once in two years and there shall not be any evidence of any pulmonary disease.
- (c) The difference of chest measurements taken after full inspiration and full expiration shall not be less than 5 cms.
- (6) (a) There shall be no evidence of cardiac or vascular disease.
- (b) Normal heart rate shall not be above 90 or less than 60 beats per minute. The person shall be free from dyspnoea on light exertion.
- (c) Blood pressure shall not exceed 140 mm of mercury, systolic and 80 mm of mercury, diastolic.
- (7) Person shall not have Hernia.
- (8) Person shall not have Hydrocele.
- (9) The nervous system shall be sound and there shall not be any history of epilepsy or any other organic or hysterical fits or vertigo.
- (10) The gums and teeth shall be healthy and free from any infection. Persons with artificial denture shall be declared unfit.

(11) Weight of person shall be in accordance with the Table given below:—

Height in Centimetres	18 to 22		23 to 27		28 to 32		33 to 37		38 to 42		43 to 47	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
140—145	41	52	41	53	43	56	43	57	43	58	43	59
146—150	43	54	43	56	44	59	45	60	45	60	45	61
151—155	45	56	46	58	46	62	47	63	47	64	47	65
156—160	48	59	48	61	48	65	50	67	50	67	50	68
161—165	51	62	51	65	51	69	53	70	53	71	53	72
166—170	54	66	54	68	55	73	55	75	56	75	56	76
171—175	58	71	58	73	58	78	60	80	60	80	60	81
176—180	61	75	62	78	62	83	64	85	64	86	64	87
181—185	65	80	65	83	66	88	68	90	68	92	68	93
186—190	69	85	69	89	70	94	72	96	72	97	72	98

(1) Minimum weight in kilograms.

(2) Maximum weight in kilograms.

N.B.—In case of 12 monthly re-examination of rescue trained persons, variation up to 10 per cent in the fitness standards may be accepted and the standard of distance vision under clause 3(a) may be accepted even with glasses.

SCHEDULE VII

[See Rule 21]

COURSES OF INSTRUCTIONS AND PRACTICES

Part I — Initial Course

The course of instructions and practices shall be as follows:—

A. Instructions—Instructions in the following subjects:—

- (i) the general methods of dealing with fires below-ground and the recovery of mines after fires and explosions;
- (ii) the construction, use, repair, maintenance and testing of the type or types of breathing apparatus provided, and the smoke helmets or other apparatus serving the same purpose;
- (iii) the use of methods and apparatus for reviving persons;
- (iv) the properties, and the methods of detection of noxious and inflammable gases which may be found in mines;
- (v) the taking of gas samples in irrespirable atmosphere;
- (vi) the reading of mine plans;
- (vii) the requirements contained in Chapter V and Schedule VII to these rules.

B. Practices—Not less than twelve practices with breathing apparatus and not less than two practices with smoke helmets or other apparatus serving the same purpose. The practices in each case shall be carried out under conditions devised to resemble those likely to be encountered in operations below-ground and requiring the use of such apparatus and shall be carried out as follows:—

- (a) Not more than eight and not less than five men shall take part in any practice.

- (b) The practices with breathing apparatus shall commence in ordinary air, and shall progress gradually until practices can be carried out and in hot and irrespirable atmosphere.
- (c) The practices with breathing apparatus shall comprise the following operations:—
 - (i) repeatedly raising and lowering of a weight of 25 kilograms to and from a height of 1.8 metres by means of a rope and pulley;
 - (ii) walking continuously at a fair pace for half an hour;
 - (iii) building and removing temporary stoppings of stone, brick, sand-bags, brattice cloth or other materials, and carrying the materials required for such operations over a distance of at least ten metres;
 - (iv) removing debris in confined space, as representing the clearing of a fall of roof;
 - (v) setting timber or other roof supports;
 - (vi) carrying, pulling or pushing on a stretcher a live person or dummy body weighing 70 kilogram along the length of the gallery;
 - (vii) the rapid establishment of communication.

Part II — Practices and Instructions after becoming competent

A. *Instructions*—Revision of all subjects included in Part I.

B. *Practices*—At least eight practices with breathing apparatus in every calendar year of which at least four months shall take place in mines, and the remainder in hot and irrespirable atmosphere in the Training Gallery at Rescue Station. As far as practicable these practices shall be evenly distributed, so however that the gap between two consecutive practices shall not exceed four months:

Provided that, if a rescue trained person fails to undergo a refresher practice over a period exceeding four months, the Chairman, Board of Mining Examinations may, on being satisfied that the discontinuance was on valid reasons, permit him subject to the provisions confined in Rule 21, to undergo a special course of refresher practices and instructions, extending over five consecutive days, whereupon, he shall again become active.

Note.—(i) All practices shall last at least two hours except on occasion when, in the opinion of Instructor, it is desirable in the interest of safety to curtail the period of practice. At some of the practices, breathing apparatus shall be worn continuously for a period of two hours.

(ii) The code of signals set out in Schedule VIII shall be used in training.

SCHEDULE VIII

[See Rule 32(3)]

CODE OF SIGNALS

A. Between members of rescue team

One hoot	..	“Distress” or “Help wanted” (If no answer given to a call, “Distress” to be under-stood).
Two hoots	..	Halt
Three hoots	..	Retire
Four hoots	..	Advance
Five hoots	..	To call attention

B. Between tube apparatus operator and user

One tug	..	More air required.
Two tugs	..	Give less air.
Three tugs	..	Help me out.