

RECOMMENDATIONS OF EIGHTH CONFERENCE ON SAFETY IN MINES

Held in New Delhi on 14th May, 1993

1.0 Review of Status of implementation of recommendations of seventh conference on safety in mines.

The committee decided to carry forward the following recommendations of the Seventh Conference on Safety in Mines:

1.1 Necessary facilities for monitoring the environmental parameters in respect of methane & carbon monoxide should be provided at mines. Facilities of continuous type monitoring should be installed within two years in all degree III gassy coal mines and in other mines having active underground fire. Indigenous manufacturers should be encouraged to manufacture necessary equipment.

1.2 To meet the requirement of qualified surveyors in mines, mining companies should expeditiously induct apprentices in sufficient number commensurate with the retirements and additional requirements.

1.3 Though mining companies have evolved suitable cadre structure for mine surveyors in order to attract and retain competent and qualified persons in survey discipline, but the same has not yet been implemented. It should be implemented early.

1.4 Preparation of plans after connecting with National Grid by special teams shall be expedited and this work shall be completed by December, 1995.

1.5 In mines where long or arduous travel is involved, arrangement for transport of men should be made.

1.6 A code of practice shall be drawn up for dealing with fires at different locations in opencast mines, including HEMM Arrangements for fighting fire should be provided on all heavy earth moving machinery. Such arrangements should, if possible, operate automatically on appearance of fire/smoke.

1.7 Every mining company operating mechanised mines shall create properly staffed and well equipped Occupational Health Service before 31-12-1993.

1.8 In respect of small mechanised mines which are operating in non-coal sector, it may not be feasible for a small organisation to create a special department on Occupational Health Services. For such small mines, It is suggested that an Association of small mine operators creates common facilities and infrastructure for occupational health services. Creation of such facility is specially needed for asbestos, manganese and mica mines. Simultaneously with creation of facilities for occupational health services, it is also necessary to improve quality of life of employees working in mining industry by provisions of well planned housing colonies with all modern facilities such as good drinking water, good sanitation, drainage and recreational facility.

2.0 Prevention of Accidents in Coal Mines due to falls of roof

2.1 Because of variable nature of the roof strata in coal mines, these should be classified using RMR method of geo-mechanical classification as suggested by the Expert Group (Paul Committee).

2.2 The pattern and sequence of support should be as per recommendations of Paul Committee and where support is required it should be such that at any point of time the last row of supports is not more than 1.8m from the face, Blasting should not be able to dislodge the support system. In case of poor and fair roof condition, quick setting grouted bolts be preferably used.

2.3 Every year in atleast 1/5th of the development districts suitable type of steel support should be introduced.

2.4 Wherever practicable, roof bolting as a method of support should be used. Its performance should be monitored regularly. A few conventional timber props may be used as indicator props.

2.5 Mining companies should take initiative to select/promote development of suitable type of drills and other accessories for use in various types of roof strata. A task-force may be created for the purpose which may oversee the introduction of steel supports.

2.6 Keeping in view the proposed replacement of conventional supports with steel supports, suitable amendments should be made under CMR 1957 regarding duties of timbermen (support personnel),

2.7 Arrangement shall be made to give proper training to support personnel.

2.8 Development of a portable instrument for detecting hidden slips in the roof should be taken up on priority by R & D organizations.

3.0 Safety Education and Workers' Participation in safety Management

3.1 Training of Work-Persons

3.1.1 Each mining company should (either by itself or jointly) draw up model training schedules for different categories of workpersons. Such schedules should be got vetted by the tripartite review committees of respective companies by the 30th June 1994.

3.1.2 From 1.1.1995 training should be imparted as per the new schedules.

3.2 Training of supervisory officials

3.2.1 All front-line supervisory officials like Sirdar/Mates, Overmen/Foremen, Surveyors, Electrical/Mechanical Supervisors/Chargemen/Foremen as well as persons supervising other surface operations should be imparted structured training in safety management, for atleast two weeks, once in every five years, covering about 20% strength every year.

3.2.2 In addition to the existing criteria of eligibility to appear in Sirdar's/ Mate's examination, the company should have arrangement to provide properly designed class-room training to candidates for Sirdar's/Mate's examination.

3.3 Modern tools including audio-visual (video) should be used for imparting all training.

3.4 Workers' Participation in Safety Management

3.4.1 Members of Safety Committees should be given training to prepare them to discharge their assigned functions efficiently. The syllabus of the training- programme should be drawn by respective mining companies, to suit the local conditions and work practices. The training programme should be of one week and should comprise of lectures and demonstrations as well as field visits.

3.4.2 Such training should be completed by 30.6.94 in respect of existing members and all new members should be imparted training within six months of their nomination.

3.4.3 Once in a year, the meeting of the Safety Committee should be attended by senior officials of the Area and Trade Unions. The meeting may review recommendations made during the year by the Committee together with status of implementation as well as the salient features of the reports of Workmen's Inspectors. Similarly, at the Area level also similar meeting may be held.

4.0 Occupational Health Hazards

4.1 Part -A: Medical Surveillance

ILO Conventions Nos. 155 and 161 on Occupational Health Service with particular reference to prevention of occupational diseases and health surveillance should be complied, with special reference to the following:

4.1.1 There should be atleast one medical officer properly trained in occupational health in each area who should also be associated with Periodical Medical Examinations.

4.1.2 Atleast one of the medical officers engaged in medical examinations should be trained in use of ILO classification of radiographs for pneumoconiosis.

4.1.3 Adequate facilities for x-ray and Lung function tests should be provided at each medical examination centre.

4.1.4 Health Surveillance record shall be properly maintained.

4.1.5 If the profusion of any type of pneumoconiosis opacities in chest x-ray is 1/0 or above as per ILO classification, the case shall be certified and notified as pneumoconiosis.

4.1.6 One of the medical examinations of every person should be arranged within one year of his superannuation.

4.1.7 To monitor the progress of profusion in certified cases of pneumoconiosis, medical examination should be conducted at shorter intervals.

4.1.8 Each company should submit annual report on radiological results of medical examinations in the enclosed format.

4.2 Part -B: Dust

4.2.1 Every mining company operating mechanised mines should take early steps to ensure that:

(a) Adequate arrangements and wherever necessary organisation and infrastructure facilities to carry out dust surveys in mines are established within a period of one year.

(b) Air-borne dust surveys are completed and necessary control measures, wherever required, taken within a period of 2 years:

(i) At all mechanised longwall faces, mechanised bord and pillar workings and road header drivages in coal mines:

(ii) At all drilling, mechanised loading and crushing operations in non- coal mines;

(iii) At all ore/coal handling/beneficiation plants.

4.2.2 Necessary training should be imparted to the persons engaged on air- borne dust surveys and control measures. .

4.3 Part – C: Noise

4.3.1 The recommendations of DGMS Cir. Technical 18 of 1975 shall be implemented forthwith.

4.3.2 All mining companies should take steps regarding:

(i) Standardisation of the information to be furnished by the manufacturers/suppliers, as well as its assessment procedure;

(ii) Development and supply of proper type of ear protectors including helmet mounted ear muffs.

4.3.3 Audiometry should be introduced, as a part of mandatory medical examination, for persons seeking employment in mines and for persons engaged in operations/areas where noise level exceeds 90 dB (A).

4.4 The recommendations of VII Conference of Safety in Mines regarding the functions of Occupational Health Services are reiterated. Progress on medical examinations, surveillance of working environment, education and awareness activities shall be monitored at company level.

5.0 Safety in Opencast and Surface Operations

5.1.1 Any person to be employed to drive/operate HEMM should be trained and his competency should be evaluated by a Board constituted by the mining company. The members of such board should be persons who are not connected with imparting of training. However, the training officers may be co-opted in the Board as observer.

5.1.2 Only such fitters/mechanics who possess driver's/operator's competency certificate should be allowed to carry out test-run of HEMM.

The legal position whether the fitters/mechanics who carry out the test run would be required to possess vehicle driving licence under Motor Vehicle Act should be examined.

5.1.3 To prevent unauthorised driving, a system should be evolved whereby the ignition key and/or cabin key always remains with the driver/operator or with specifically designated competent person(s).

5.2 Use of tractor-trailer combination on haul-roads should be discontinued. Where inevitable, the trailer should have separate brake of its own and the use of four wheeled trailer should be preferred. The operators should also be suitably trained on right selection of gears while travelling downhill.

5.3 The portion of surface haul road in mine premises where there is heavy traffic of men and machines, should have a separate lane properly fenced off from the haul road for pedestrians and two-wheelers.

5.4 Wherever space permits, every mine should establish a system whereby loading and unloading operations in the stockyard are not done simultaneously at the same place. In case adequate space is not available, mine management should organize suitable traffic regulations for eliminating risk element in the operations.

5.5 Trucks and other heavy vehicles, not belonging to management should not be allowed in the mine premises without a valid pass issued by the competent authority of the mine.

Before the pass is issued, the mine engineer should check the road-worthiness of such vehicles. In order to check entry of unauthorised vehicles in mine premises, each mine should establish properly manned check gates where record of entry and exit of each such vehicle should be

maintained. At the check gate the licence of the drivers should also be checked for eliminating the possibility of unlicensed persons driving the vehicles.

5.6 Persons engaged in surface operations and, in particular, the contractors' workers, who incidentally are often inexperienced and least informed about job-safety matters, need closer and more competent supervision. To minimise accidents due to surface operations, it would be ensured that:

(i) All persons engaged at any work within the mine premises through the contractors have received relevant training and other job-related briefings and that the drivers of vehicles belonging to contractors entering the mine premises have additionally been explained the salient provisions of "traffic rules"

Each mining company should draw up appropriate training schedules and modalities in this regard and implement the same.

In case of smaller mines, such arrangement may be made by association of mine operators.

(ii) Each and every operation, including the operation carried out through contractors' workers or by outside agency, is placed under the charge of a competent supervisor, duly appointed and authorized by the management, his jurisdiction being clearly demarcated.

6.0 Safety in Oil Mines

6.1 The management of every mine carrying out exploration for and production of petroleum should take due note of the proposed amendments to the Oil Mines Regulations, 1984 and initiate necessary preparatory actions and gear themselves up for early implementation of the proposed amendments relating to fire hazards.

6.2 The Oil & Natural Gas Commission and the Oil India Ltd. should set up a task force-

6.2.1 For drawing up model information sheets, safety report, emergency plan etc. and aiding the mine managements in adopting the same with due regard to local conditions and system, and

6.2.2 for monitoring implementation of various provisions relating to fire hazards in oil mines with particular reference to provisions of-

(a) Three BOPs on all drilling rigs;

(b) Audio-visual alarm at driller's stand to indicate gas kick;

(c) Adequate steps to prevent unauthorised entry to Christmas trees;

(d) Preparation of maps showing layout of different types of petroleum pipelines, date of installation, position of controls etc.

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