

**AGENDA PAPERS FOR 40TH MEETING OF
THE STANDING COMMITTEE ON
SAFETY IN COAL MINES**

**On
22nd FEBRUARY, 2016 At 12.00 Hrs.**

AT

NEW DELHI



सत्यमेव जयते

**GOVERNMENT OF INDIA
MINISTRY OF COAL**

**40th MEETING OF THE STANDING COMMITTEE ON
SAFETY IN COAL MINES**

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AGENDA ITEM NO. I

In Memoriam

In memory of all those who laid down their lives in furtherance of coal mining in the country since last meeting of the Committee.

MEMBERS OF STANDING COMMITTEE ON SAFETY IN COAL MINES DEEPLY MOURN THE SAD DEMISE OF THE FOLLOWING BELOVED MARTYRS AND PAY HOMAGE TO ALL THOSE WHO SACRIFICED THEIR PRECIOUS LIVES FOR THE CAUSE OF THE NATION DURING THE PERIOD BETWEEN 39TH AND 40TH MEETING OF STANDING COMMITTEE ON SAFETY IN COAL MINES						
Sl	Victim's Name & Designation	Date of accident	Name of the Mine	Compensation (in Rs)	Special Relief (Rs5 lakh)	Employment Provided
ECL						
1	Nanku Bhuia, Contractor Worker	19.03.2015	Shyamsundarpur Colliery	831920	Paid by Contractor	Not entitled
2	Rajib Turi, Contractor Dumper Operator	10.05.2015	Bonjemehari OCP	250000	Not entitled	Not entitled
3	Dhananjay Kumar Rai, UG Face Worker	28.06.2015	Kumardhubi Colliery	Under Process	Paid	Under Process
4	Alam Mallah, Line Mistry	16.08.2015	Kumardihi 'A' Colliery	Under Process	Paid	Provided
5	Ramadhar Bhar, Spray Mazdoor	12.11.2015	Khas Kajora Colliery	652280	Paid	Provided
6	Chandra Nahak, General Mazdoor	19.12.2015	Shankarpur Colliery	498800	Paid	Provided
7	Juria Nahak, Cableman	11.01.2016	Bankola Colliery	598000	Under Process	Under Process
BCCL						
1	Satnarayan Bouri, Shovel Operator	05.08.2015	Rajapur OCP	639200	Dispute	Provided
2	Dashrath Pandit, Line Mistry	05.09.2015	South Balihari	Under Process	Dispute	Provided
3	Anjan Kumar Teli, Pump Khalashi	20.10.2015	P B Project	626000	Paid	Provided
4	Somar Mahato, General Mazdoor	23.10.2015	Jeenagora OCP	513320	Paid	Provided
5	Dilip Saw, Contractor Payloader Operator	05.12.2015	AKWMC	520000	Not entitled	Not entitled
NCL						
1	Prayag Lal Shaw, Contractor Welder	19.12.2015	Amlohri Project	815400	Not entitled	Not entitled
2	Ch. Yaswant Rao, Contractor Supervisor	23.01.2016	Nigahi Project	Under Process	Not entitled	Not entitled
WCL						
1	Jaykumar M Khandar, Foreman	03.04.2015	Gouri Expansion	603680	Paid	Provided
2	Krishna Rao, LHD Operator	21.06.2015	Tawa-2 Mine	584800	Paid	Under Process
3	Sarnath Bapuji Dhoble, Subordinate Engineer	21.06.2015	Chanda Rayatwari Colliery	633360	Paid	Claim not received
4	Sitaram Vithoba Nikumbe, Cableman	06.08.2015	Durgapur Rayatwari Colliery	598560	Paid	Claim not received
5	Vinod Moreswar Titre, Contractor Tipper Driver	29.08.2015	Kolarpimpri	752100	Not entitled	Not entitled
6	Kesnath Mehangee, Clipman	03.12.2015	Tandsi UG Mine	556520	Paid	Claim not received
SECL						
1	Bipro, Support Mistry	24.03.2015	NCPH R-6 Mine	498800	Paid	Provided
2	Vijay Kumar, Dumper Operator	07.04.2015	Chirimiri OCM	513320	Paid	Provided

3	Sunder Hembram, Contractor Worker	23.04.2015	Amgaon OCP	896000	Not entitled	Not entitled
4	Deolal, Support Mistry	15.05.2015	Rajnagar RO	561520	Paid	Provided
5	Gopal Singh, S. B. A	13.06.2015	Kumda 7/8 Inclines	508320	Paid	Provided
6	Dinesh Kumar Mishra, Sr. Overman	15.06.2015	Kusmunda OCP	690080	Paid	Not applied
7	Horilal Kewat, Blasting Crewman	19.06.2015	Damini UG Mine	788240	Under Process	Not applied
8	Uday Raj Singh Baghel, Contractor Payloader Operator	26.08.2015	Kusmunda OCP	665100	Not entitled	Not entitled
9	Sukesh Kumar Singh, Contractor Worker	26.11.2015	Churcha RO UG Mine	831920	Not entitled	Not entitled
MCL						
1	Somraj Sahu, Contractor Worker	29.09.2015	Samleshwari OCP	500000	Not entitled	Not entitled
2	Balram Bauri, Contractor Helper	22.11.2015	Bharatpur OCP	100000	Not entitled	Not entitled
Total Fatalities = 31						

AGENDA ITEM NO. II

Confirmation of the minutes of 39th meeting of Standing Committee on Safety in Coal Mines held on 13.3.2015 at New Delhi.

<<<<◇>>>>

II: Confirmation of the minutes of 39th meeting

No. 22022/01/2014-CRC-II
Government of India
Ministry of Coal

New Delhi, Dated: 29th April, 2015

OFFICE MEMORANDUM

Subject: Minutes of the 39th meeting of Standing Committee on Safety in Coal Mines held on 13.3.2015 at New Delhi.

Sir,

The undersigned is directed to forward a copy of Minutes of the 39th meeting of the Standing Committee on Safety in Coal Mines held on 13.3.2015 under the Chairmanship of Hon'ble Minister of State (I/C) Coal in New Delhi for information /necessary action. Copy of the above minutes has also been put on the website of this Ministry i.e. <http://coal.nic.in>.

Yours faithfully,

Encl. As above.

(A.K. Mandal)
Under Secretary to Govt. of India

To:

All the members of the Standing Committee on Safety in Coal Mines (As per distribution list):

Copy to:

1. PS to Hon'ble Minister of State for Coal
2. OSD to Hon'ble Minister of State for Coal
3. Sr. PPS to Secretary (Coal)
4. PPS to Addl. Secy. (Coal)
5. PS to Adviser(Projects)
6. PS to Director (Technical)

Copy also to:

7. Technical Director, NIC, Ministry of Coal with the request to put the Minutes of the 39th Standing Committee on Safety in Coal Mines on the website of this Ministry.

**Minutes of the 39th Meeting of the Standing Committee on Safety in Coal Mines under the
Chairmanship of Hon'ble Minister of State (I/C) Coal
held on 13th March, 2015**

The 39th meeting of the Standing Committee on Safety in Coal Mines was held on 13th March, 2015 in New Delhi under the Chairmanship of Shri Piyush Goyal, Hon'ble Minister of State (I/C) Coal.

The list of participants is at Annexure.

Before starting the proceedings, two minute silence was observed in memory of those who laid down their lives for the cause of Coal Industry since the last meeting of the Standing Committee.

Advisor (Projects), requested Hon'ble Minister to address the Committee.

2. Welcoming the members of the Standing Committee on Safety in Coal Mines, Hon'ble Minister mentioned that at least two meetings should be held in a year but due to paucity of time after his taking over the first meeting could be held only now. However, all the efforts will be made to hold two meetings now onwards in a year. He further desired to hold the next meeting either in Kolkata or at Ranchi.

3. In his address, Hon'ble Minister of Coal emphasized on 'zero tolerance' for breach of workers' safety and said that all efforts must be made to ensure that there would be no compromise on workers safety. In view of the target of 1 billion tonnes for coal production in India, standards of safety must be improved further. He clarified that high production level must be achieved without compromising workers' safety and health.

Citing the examples of the fail-safe risk mitigation systems being adopted very successfully in highly dangerous and hazardous industries such as nuclear power plants and space missions, he desired that all coal companies should also adopt the best risk mitigation system to achieve zero harm /potential in all coal mines of the country by joint endeavour of workmen, trade union and management. Citing the figures of 48 fatalities in CIL in between 38th and 39th meeting of the Standing Committee on safety in coal mines, he desired that all steps should be taken for achieving "Gold standards" i.e. best standards for safety in coal mines so that India could set such standards in Coal Mines Safety.

Confirmation of the minutes of 38th Meeting:

4. The minutes of the 38th Meeting of the Standing Committee on Safety in Coal Mines held on 28th January, 2014 were confirmed.

Hon'ble Minister then requested members of the Standing Committee to present their views one by one, having relevance to improvement in Standard of Safety and Health of the Mine operations and workers.

The views and suggestions of Trade Union leaders are as under:

5. Shri K. C. Patra, President, Odisha Coal Mines Labour Federation & H.M.S. mentioned that CIL, SCCL & NLC had their own setup for monitoring of Safety norms but no such set up was existing for mines in private sector. There should be zero Tolerance policy on the front of Safety for both PSUs & Private sector. There is acute shortage of Medical Doctors in the Dispensaries of CIL. In order to reduce the shortage of medical personnel, he requested to examine the possibility of enhancement of retirement age limit of the medical officers from 60 years to 62 years as being followed in Central govt. He also suggested that equal importance should be given to regular and contract workers on the issue of Safety standards. He raised concern that the safety budget was under utilised in the companies and urged that the safety budget should be prepared judiciously.

6. Shri S Q Zama, Secretary General, INMF(INTUC) mentioned that about 70% of the Coal production was coming through out-sourcing and this figure was likely to increase in coming years if Coal India was slated to achieve 1 billion tonnes by the year 2019-20.

He further mentioned that several discussions had been held earlier on the issue of ex-gratia payment & employment to the dependents of the deceased contractor workers who dies in a mine accident but till date no circular was issued in regard to removing the discrimination between regular and contractual workers. He also demanded ex-gratia amount of Rs.5 lakhs to be paid to the family of the deceased Contractor workers who died in mining accidents, besides employment to the dependents of the deceased contractor workers on par with regular employees. He suggested that all private coal producing companies should be accommodated in the Standing Committee on Safety in Coal Mines so that safety status of their mines was also reviewed. He opined that all recommendations of 11th National Safety Conference should be complied with and a task force constituted for monitoring the status of implementation of these recommendations.

7. Shri B K Rai, Vice President, BMS raised the issue of Human errors /failures that mostly resulted in mine accidents. Hence, joint dialogue between the mine management and trade union representatives on constant basis will greatly improve the safety standards. Decisions taken during all the safety committees at various levels should be implemented. Collaborative efforts between trade unions and management should be continued for improving safety standards

He said that substandard quality safety equipment like cap lamp, Shoes etc. were being provided to the workers and officials which was a serious compromise on the front of safety. He suggested that necessary directions/ guidelines in this regard should be given to all coal companies to provide standard quality safety equipment duly approved by DGMS.

8. Shri Rajendra Prasad Singh, President, Indian National Mine Workers Federation, (INTUC) stressed on collaborative approach between management and trade union representatives for achieving better standard for safety. He demanded that on par with

departmental employees, ex-gratia amount of Rs. 5 lakh should be paid to the family of deceased contractor workers who died in mining accidents. He raised the issues of security coverage of explosives' magazine, particularly in the naxalite dominated areas of the country. He suggested that small explosive magazines should be amalgamated and converted into a large magazine so that providing adequate security would be much easier. He drew the attention of DGMS to the danger of safety to the inclines of B&K Area of CCL arising out of heavy blasting in OC mines of DVC, which was operating nearby. He desired the matter should be properly studied by CCL and DGMS in a month and resultant action taken.

(Action: DG, DGMS and CMD, CCL)

9. Shri C J Joseph, Secretary(IMWF) AITUC stated that the contractual workmen would be significantly contributing in the augmentation of coal production to a level of 1 BT by 2019-20. Hence, their safety and health issues should be addressed in right earnest. All welfare related recommendations of the Anjan Hill Court of Inquiry should be implemented immediately by CIL. He requested for safety consciousness among the workers should be increased and the Mines Vocational Training Rules-1966 (MVTR-1966) relooked from the aspect of changes that had taken place in the mining industry over the years and also from the view of the present and future technological developments in the mining industry. Emphasis should be given to state-of-art training models for imparting training to workmen and officials.

10. Shri Surender Kumar Pandey, National President, Akhil Bhartiya Khadan Mazdoor Sangh (BMS) informed that the Safety Assessment and Safety Management Plan (SMPs) had been prepared in almost all the mines but its effectiveness had not been ascertained by DGMS as desired. The rate of ascertaining the efficacy of the safety management plan should be increased by DGMS. He stressed that all aspects of occupational health & safety covered under the recommendation of the 11th National Safety Conference should be implemented.

11. Shri Manas Kumar Mukherjee, Secretary, All India Coal Workers' Federation (CITU) informed that there was a lot of improvement in both CIL and SCCL in safety standard but in regard to private companies a lot was still required to be done for safety of workers. He highlighted that pneumoconiosis was an occupational health hazard which may mistakenly be diagnosed as tuberculosis in the hospitals of coal companies as none of the hospitals were properly equipped with pneumoconiosis detection kits. He further stressed that separate protocol and guidelines should be given for rehabilitation of pneumoconiosis patient. He also stressed that no inspection of private coal mines was carried out in the year 2014 by the sub-committee constituted by Ministry of Coal. He stressed on early disbursement of compensation to the dependent of the deceased workmen as per Employee's Compensation Act, 2009.

12. Shri R K Tiwary, Working Committee Member, AIUTUC mentioned that strict implementation of the legal provisions by the front line statutory personnel i.e. Overman and Mining Sirdar would help achieving 'Zero harm' objective. For this, shortage of statutory manpower in Overman and Mining Sirdar categories should be tackled by urgently filling up the vacancies by the coal companies. Mining Sirdar and Overman exams should be conducted by DGMS regularly so that sufficient number of candidates could become available for recruitment. He reiterated the demand for grant of one time relaxation in age by 5 years for mining diploma holders who had crossed the age of selection, as a measure to address the issue of acute shortage of statutory manpower. More numbers of training programmes should be arranged for employees engaged both in operation and in maintenance of advanced technology based facilities. Calendar of different safety committee meetings starting from Pit Safety Committee (PSC) to Corporate Safety meeting should be fixed in advance by the coal companies, and the schedule should be adhered to.

(Action: Chairman, CIL/DG, DGMS and CMDs All Coal Companies)

13. Dr. V P Sinha, Representative of IMMA raised the concern that the shortage of Statutory personal would increase significantly in view of the projected growth of Coal production in the coming years. Hence he stressed on mapping of statutory manpower, keeping in view the project target of coal production.

14. Shri V P Singh, Representative, CMOAI desired that MOC should take up the issue of simultaneous prosecution of officers under IPC with appropriate authority of the state governments so that State Police did not take action during the pendency of statutory enquiry under the Mines Act- 1952 by DGMS.

(Action: CMD, SCCL)

15. Summing up the deliberation of the meeting, the Minister said that the Standing Committee on Safety in Coal Mines being the highest forum for ameliorating the standards of safety and occupational health of coal mine workers in India, should lay stress on vital policy issues to ensure zero accident objective. Other issues may be taken up for redressal at various other forums between the management and trade union representatives starting from the Pit Safety Committee, Area level safety committee, and subsidiary level safety committee and Corporate level.

Accordingly, the Minister set out a Road map for improvement in safety and occupational health standards of coal mine workers in India aimed at achieving 'Zero Harm' to workers. The task becomes overous in view of the rapid expansion of Indian coal sector for meeting the growing energy demand of the nation, adoption of the state-of-art-technology and collaborative efforts of the management and the trade unions to achieve these production targets. In this context the following mile stones were proposed: -

a) **Mining Shoes:** All CMDs of coal companies are responsible for ensuring the supply of sufficient numbers of mining shoes of proven quality to all employees of coal sector. For uniformity in process of tendering, terms and conditions of supply of quality mining shoes in different coal companies, CMD, SCCL was entrusted with the task of suggesting a blue print for standardisation of the procurement process and submit the same to MOC **within a month.**

(Action: Chairman, CIL/CMDs All Coal Companies/ CMD, SCCL)

b) **Safety Budget:** Coal Companies were advised that a realistic safety budget both under capital and revenue heads should be finalised for the financial year 2015-16, after comprehensive assessment of the procurement of vital safety items so that the allocated budget was fully utilized.

(Action: Chairman CIL/CMDs All Coal Companies)

c) **Health care facilities:** Professionalism should be brought into the health care system of all coal companies so that all hospital and dispensaries of coal companies could cater to the need of both departmental and contractual workers. Director (Technical), Ministry of Coal was advised to organise and coordinate a study of the existing system of healthcare facilities in CIL by experts who could also suggest suitable recommendations to improve the system. The study should be completed **within 6 months.**

(Action: Director, MOC and D(P),CIL)

d) **Mine Environment:** All existing water sprinklers should be replaced with Mist type water sprinkling system **within a years.**

(Action: Chairman, CIL/ CMDs All Coal Companies)

- e) **Phasing out manual loading:** All manual loading district in underground coal mines should be phased out **within a year's time**. (Action: Chairman, CIL/ CMDs All Coal Companies)
- f) **Use of resin bolting:** Wherever necessary, the cement capsules based roof bolting system should preferably be replaced with resin capsules type **within two year's time** as per strata conditions. (Action: Chairman, CIL/ CMDs All Coal Companies)
- g) **Gas Monitoring gadget:** All underground mines should be well equipped with requisite numbers of online gas monitoring/detecting apparatus **within three year's time** covering all gassy mines of degree-III and degree-II in the first phase followed by degree -I mines. (Action: Chairman, CIL/ CMDs All Coal Companies)
- h) **Occupational Diseases diagnosis protocol:** Pneumoconiosis detection kit should be installed in all hospitals **within a period of one year** and rehabilitation and redeployment of affected workmen should be carried out in line with the provisions of safety norms. (Action: Chairman, CIL/ CMDs All Coal Companies)
- i) **Slope Monitoring System:** He advised all CMDs to sort out the operational issues related to procurement of pit / dump slope monitoring systems at the earliest and implement the same in **a years' time**. (Action: Chairman, CIL/ CMDs All Coal Companies)
- j) **Training of mine employees:** Mandatory **1(one) week** training of all the front-line supervisory officials for improving their knowledge, skill and safety awareness. (Action: Chairman, CIL/All Coal Companies)
- k) **Protocol of security of explosive magazine:** A Protocol should be finalised for security of explosive magazine and implemented **within next three months**. (Action: Chairman, CIL/All Coal Companies)
- l) Assured to flag the issue of harassment to the employees and executives of the mine after a mine accident in the Chief Ministers Meeting.
- m) **Contractor workers safety :** He advised DGMS to review the VTC rule **within a period of 3 months** in light of the concern shown by the members. (Action: Chairman, CIL/ DG, DGMS)
- n) **Inspection of private mines :** The sub-committee may be re-constituted for inspection of the private coal mines in the country to assess the safety and occupational health status thereat **in next 3 months** time. (Action: MOC)

The meeting ended with vote of thanks to the Chair.

AGENDA ITEM NO. III

Action Taken Report on recommendations of 39th meeting of Standing Committee on Safety in Coal Mines held on 13.3.2015 at New Delhi

Action Taken Report (ATR) on the recommendations of 39th Standing Committee in safety in coal mines held on 13.03.2015

Recommendation	Action Taken by DGMS
Para no.7: Shri B K Rai, Vice President, BMS suggested that necessary directions/ guidelines should be given to all coal companies to provide standard quality safety equipment duly approved by DGMS.	DGMS: A directive has been issued to all mining companies in in this regard on 23.9.2015. (Copy of the Circular at - Annexure-I).
Para no. 8: Shri Rajendra Prasad Singh, President, Indian National Mine Workers Federation, (INTUC) drew the attention of DGMS to the danger of safety to the inclines of B&K Area of CCL arising out of heavy blasting in OC mines of DVC, which was operating nearby. He desired the matter should be properly studied by CCL and DGMS in a month and resultant action taken.	DGMS: The Director of Mines Safety and Dy. DGMS, Koderma Region inspected DVC Bermo Mine on 20.5.2015 and enquired into the matter. After the enquiry they submitted a report which is at Annexure-II . In the report, it has been concluded that the incline mouth opening of Kargali underground mine was situated at a distance of about 1800m from present blasting place of DVC Bermo Mine and no danger is apprehended to the incline of Kargali (BSI) underground mine due to heavy blasting carried out in DVC Bermo Mine.
Para No.9: Shri C J Joseph, Secretary(IMWF) AITUC requested that safety consciousness among the workers should be increased and the Mines Vocational Training Rules-1966 (MVTR-1966) relooked from the aspect of changes that had taken place in the mining industry over the years and also from the view of the present and future technological developments in the mining industry. Emphasis should be given to state-of-art training models for imparting training to workmen and officials.	DGMS: A Committee is being constituted with the senior officers from DGMS and major mining companies for review and formulation of a draft for comprehensive amendment of MVTR, 1966. A sub-committee to the above Committee has also been constituted with representatives from DGMS and major mining companies to prepare training modules, which may be considered for incorporation in the draft amendment.
Para No. 10: Shri Surender Kumar Pandey, National President, Akhil Bhartiya Khadan Mazdoor Sangh (BMS) informed that the Safety Assessment and Safety Management Plan (SMPs) had been prepared in almost all the mines but its effectiveness had not been ascertained by DGMS as desired. The rate of ascertaining the efficacy of the safety management plan should be increased by DGMS.	DGMS: An internal instruction has been issued to all zonal offices of DGMS to expedite the review of safety management plans of the mines under their jurisdiction.
Para No. 11: Shri Manas Kumar Mukherjee, Secretary, All India Coal Workers' Federation (CITU) highlighted that pneumoconiosis was an occupational health hazard which may be mistakenly diagnosed as tuberculosis in the hospitals of coal companies as none of the hospitals were properly equipped with pneumoconiosis detection kits.	DGMS: A technical circular dated 23.9.2015 has been issued by DGMS to at all mining companies to review their occupational health surveillance facilities, take necessary measures to strengthen the facilities and to make a system of undertaking such reviews periodically for continual improvement. (Copy of the Circular at - Annexure.III)
Para No. 12: Shri R K Tiwary, Working Committee Member, AIUTUC mentioned that shortage of statutory manpower in Overman and Mining Sirdar categories should be tackled by urgently filling up the vacancies by the coal companies. Mining Sirdar and Overman exams should be conducted by DGMS regularly so that sufficient number of candidates could become available for recruitment.	DGMS: Overman's Certificate Exam is conducted every year by DGMS and Sirdar's Certificate Exam is conducted by regional and Zonal offices of DGMS based on the number of applications received from the candidates every year. Details of the persons passed in the Overman's exam during last five years is at Annex.-IV . Moreover, observation of the Hon'ble Committee has been forwarded to the Secretary, Board of Mining Examination, for suitable action in this regard.

Sl.No	HEADING	RECOMMENDATION	ACTION TAKEN BY COAL COMPANIES
3	Zero harm potential	<p>Hon'ble Minister of Coal emphasized on 'zero tolerance' for safety and said that all efforts must be made to ensure that there would be no compromise on workers safety.</p> <p>Citing the examples of the fail-safe risk mitigation systems being adopted very successfully in highly dangerous and hazardous industries such as nuclear power plants and space missions, he desired that all coal companies should also adopt the best risk mitigation system to achieve zero harm potential in all coal mines.</p>	<p>CIL: Steps being taken for achieving 'zero tolerance' is given in the <i>Annexure-V</i>.</p> <p>SCCL: There would be no compromise on workers safety, also Standards of Safety are being improved. 'Zero accident' potential is the ultimate aim of Company.</p> <p>The following steps are being taken to bring 'Zero accident' rate in SCCL:</p> <ul style="list-style-type: none"> • Implementation of Risk Assessment based Safety Management plan. • Identification of hazards in all mining operations and associated risks thereof. • Adoption of control measures for elimination/mitigation of recorded hazards. • Roof support system based on Geo Technical studies. • Strata control cell in each region. • Use of Continuous Miner and Long wall technologies in feasible areas to eliminate blasting hazards. • Introduction of Roof bolters for Resin capsule bolting. • Use of rear view cameras and proximity devices in dumpers at Opencast mines. • Introduction of automatic fire detection and fire suppression systems in all HEMM. • Tele monitoring system for real time monitoring CH4 and CO gases in UG Mines. • Analysis of mine air samples using Gas Chromatograph. • Proposed to introduce simulators for training to the Operators. <p>Risk Management Plan (RMP) is prepared, being updated and implemented and all risks are being monitored by monthly follow up meetings and quarterly review meeting and for updation to achieve the object of 'Zero accident'. Trade unions and management is working in tandem.</p> <p>NLC: Risk mitigation system is adopted to achieve zero harm/potential by joint endeavor of workmen, trade union and management.</p> <p>TSL: Effort is being made to achieve "Zero Tolerance" on safety for breach of workers safety. Safety stand downs are being taken wherever the conditions are unsafe. Action against consequence management is being taken against noncompliance of safety rules .</p>
15(a)	Mining Shoes	All CMDs of coal companies are responsible for ensuring the supply of sufficient numbers of mining shoes of proven quality to all employees of coal sector.	<p>CIL:</p> <ul style="list-style-type: none"> • Only quality mining shoes are being provided to all eligible employees as per statutory requirement. • Only DGMS approved mining shoes made strictly as per IS specification are being procured through fair and transparent tendering process. • Whenever any complaint about the quality of mining shoes is received from employee, immediate corrective steps are being taken. <p>Company-wise details of mining shoes are given in <i>Annexure - VI</i>.</p> <p>SCCL: Required no. of mining shoes with good quality are being supplied to all the need of work persons. A group of Senior Officers visited subsidiaries of CIL and Shoe manufacturing facilities and a blue print for standardization of the procurement process for ensuring quality of the shoes has been submitted.</p> <p>NLC: All the Personal Protective Equipments including Mining shoes are purchased by ISO at Corporate level by centralized purchase and in order to ensure quality, the mining shoes are purchased only as per IS-15298(Part 2 –</p>

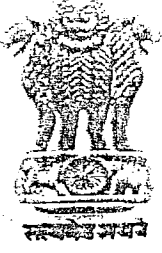
			<p>2011) Design B angle boot with ISI marking and DGMS approval.</p> <p>TSL: Good quality of safety shoes are being issued to all employees. Good quality of leather safety shoes are being issued to all surface employees and officials. We have standardized the standard of safety shoes for entire Tata Steel.</p>																				
15(b)	Safety Budget	<p>A realistic safety budget both under capital and revenue heads should be finalized for the financial year 2015-16, after comprehensive assessment of the procurement of vital safety items so that the allocated budget was fully utilized.</p>	<p>CIL: Safety budget both under capital and revenue heads for the financial year 2015-16 have been finalized after proper assessment by all subsidiaries of CIL. Company-wise status of Safety budget under capital and revenue head are given in <i>Annexure - VII</i>.</p> <p>SCCL: Required amount of revenue budget for safety is being allocated taking in view and after comprehensive assessment of procurement of vital safety items and budget is also properly being utilized.</p> <p>Details of Safety expenditure:</p> <p style="text-align: right;">(Rs. In lakhs)</p> <table border="1"> <thead> <tr> <th rowspan="2">Year</th> <th>Capital A/c</th> <th>Revenue A/c</th> </tr> <tr> <th>Actual expenditure</th> <th>Actual expenditure</th> </tr> </thead> <tbody> <tr> <td>2011-12</td> <td>644</td> <td>56811</td> </tr> <tr> <td>2012-13</td> <td>1085</td> <td>71053</td> </tr> <tr> <td>2013-14</td> <td>531</td> <td>72472</td> </tr> <tr> <td>2014-15</td> <td>767.14</td> <td>74600.50</td> </tr> <tr> <td>2015-16 (upto Nov. 2015)</td> <td>240.00</td> <td>45297.00</td> </tr> </tbody> </table> <p>NLC: only realistic Safety Budget Provisions are made available when Annual Plan is drawn up for both for Capital and Revenue Budget and the total budget provision is fully utilized.</p> <p>TSL: At Tata Steel there is no separate budget for safety. All material require for safety is given first priority and there is no budget constrained for same. All vital safety items are being procured under safety scheme and it is being utilised fully.</p>	Year	Capital A/c	Revenue A/c	Actual expenditure	Actual expenditure	2011-12	644	56811	2012-13	1085	71053	2013-14	531	72472	2014-15	767.14	74600.50	2015-16 (upto Nov. 2015)	240.00	45297.00
Year	Capital A/c	Revenue A/c																					
	Actual expenditure	Actual expenditure																					
2011-12	644	56811																					
2012-13	1085	71053																					
2013-14	531	72472																					
2014-15	767.14	74600.50																					
2015-16 (upto Nov. 2015)	240.00	45297.00																					
15.(c)	Health care facilities	<p>Professionalism should be brought into the health care system of all coal companies so that all hospital and dispensaries of coal companies could cater to the need of both departmental and contractual workers.</p>	<p>MOC/CIL: AIIMS has completed the field visit to different subsidiaries of Coal India Limited. Data has been analyzed. Subsidiary wise Draft report is ready.</p> <p>A meeting of AIIMS Faculties and two coordinators, Dr. VK Singh & Dr. Kushal Mitra was held on 25th 26th & 28th Jan 20116 at AIIMS, New Delhi. Subsidiary wise draft report was discussed. Final draft recommendation was also prepared. Some data was not available from MCL & SECL. They are reviewing the draft for final submission.</p> <p>It is expected that final recommendation will be ready by first week of March 2016.</p> <p>SCCL: Professionalism has been enhanced in the health care system and the hospitals and dispensaries had been modernized for catering to the needs of both department and contractual workers. Further, SCCL is having tie-up with top notch corporate hospitals for treatment of complicated cases by referrals.</p> <p>TCL: We have well equipped hospital to take care of health of our employees as well as contract employees. Annual health check-up of all the employees is done under our wellness@workplace program</p>																				

15.(d)	Mine Environment	All existing water sprinklers should be replaced with Mist type water sprinkling system within a year.	<p>CIL: All existing water sprinklers are being replaced with Mist type water sprinkling system in phased manner. All new procurement of water sprinklers are of mist type. Company-wise details are given in <i>Annexure - VIII</i></p> <p>CMPDI: Mist sprinklers have been advised /envisaged in the PR as well as the EIA/EMP.</p> <p>SCCL: All the 7 CHPs operating in different coal mining areas of SCCL have been equipped with mist spray arrangements for ensuring effective dust suppression. In addition to the above, SCCL is procuring 9nos. mobile dust suppression machines with mist spray arrangements for use in CHPs for controlling particulate emissions.</p> <p>All water sprinklers have been provided with Mist type water sprinklers at CSP, CHPS, Coal Bunkers, Loading and Unloading points.</p> <p>NLC: The feasibility of replacing all existing water sprinklers with Mist type water sprinkling system within a year would be explored.</p> <p>TSL: We have provided fixed type water sprinklers in our washeries.</p>
15.(e)	Phasing out manual loading	All manual loading district in underground coal mines should be phased out within a year's time.	<p>Some manual loading district in underground coal mines of CIL still exist due to some geo-mining constraints and techno-economic reasons. However, steps are being taken to stop all manual loading districts.</p> <p>Company-wise details of manual loading and Programme for phasing out the same are given in <i>Annexure - IX</i>.</p> <p>SCCL: Manual loading has been phased out in 27 UG mines out of 31 total mines. Phasing out in the remaining 4 mines is planned by 2016.</p> <p>NLC: Not applicable.</p> <p>TSL: We have deployed 10 new SDL machines to phase out manual loading.</p>
15.(f)	Use of resin bolting	Wherever necessary, the cement capsules based roof bolting system should preferably be replaced with resin capsules type within two years' time as per strata conditions.	<p>CIL: Steps are being taken to replace all cement capsules based roof bolting with resin capsules type as per geo-mining conditions of mine. Company-wise details of using of resin capsules are given in <i>Annexure -X</i>.</p> <p>CMPDI: CMPDI has only testing laboratory for resin / cement capsules for samples. Whenever samples are received, the cement is tested as per technical circulars of DGMS.</p> <p>SCCL: Resin capsules are being used for roof bolting system of supports with roof bolter only.</p> <p>TSL: 100 % resin capsules is being used for roof bolting.</p>
15.(g)	Gas Monitoring gadget	All underground mines should be well equipped with requisite numbers of online gas monitoring/detecting apparatus within three years' time covering all gassy mines of degree-III and degree-II in the first phase followed by degree —I mines.	<p>CIL: Steps are being taken to strengthen early detection and continuous detection and monitoring of mine gases by using modern sophisticated online apparatus / gadget. Company-wise details of online gas monitoring/detecting apparatus are given in <i>Annexure-XI</i></p> <p>CMPDI: (i) While preparing underground project report the provision of equipping the mines with online gas monitoring /detecting apparatus are being proposed for degree-II and degree-III gassy mines. Henceforth, this aspect will also be taken care while preparing underground project report for Degree-I gassy mine.</p> <p>(ii): For existing mines, CMPDI prepares the scheme/ NITs for installing the online gas monitoring system whenever the job is assigned to CMPDI.</p> <p>SCCL: Latest gas detectors of electronic display type are being used in all UG mines and the requisite no. of all types of gas detectors and Flame Safety Lamps have been provided.</p> <p>Even though SCCL mines are Degree-1 gassy mines, on line gas monitoring/detecting apparatus are installed and operating at mechanized mines like GDK 11 Incline and Andriyala Long wall project etc. Further advance system</p>

			<p>like gas monitoring is under final stage of procurement from Australia for high capacity longwall at LPA. AAP area.</p> <p>Further, advanced system like TUBE BUNDDLE on line gas monitoring is under final stage of procurement from Australia for high capacity long wall at ALP, APA area.</p> <p>TSL: For online gas monitoring, tele-monitoring system has been installed in all the underground mines of Tata steel.</p>
15(h)	Occupational Diseases diagnosis protocol	Pneumoconiosis detection kit should be installed in all hospitals within a period of one year and rehabilitation and redeployment of affected workmen should be carried out in line with the provisions of safety norms.	<p>CIL: Appropriate diagnostic facilities as per ILO guidelines for early detection of Coal Workers Pneumoconiosis are available in all central hospitals and PME centres of subsidiary company. Rehabilitation and redeployment of affected workmen is being carried out in line with the provisions of safety norms.</p> <p>Company-wise present status of Occupational Health Services is already given in <i>Annexure - XII</i>.</p> <p>SCCL: Occupational diseases diagnosis & protocol is already in place of all OHS centers at SCCL.</p> <ul style="list-style-type: none"> • There are no established blood test kits available for diagnosis of coal workers pneumoconiosis in the market. • Coal workers pneumoconiosis is diagnosed on the basis of comparison of suspected cases of coal workers pneumoconiosis X-ray films with ILO classification pneumoconiosis X-ray films 2000 classification kit. • 47 Doctors of SCCL trained in reading ILO pneumoconiosis classification X-ray films in assessing coal workers pneumoconiosis. <p>Noise induced hearing loss:</p> <ul style="list-style-type: none"> • Noise induced hearing loss is an occupational disability. It is painless, progressive, permanent, preventable. • Noise mapping is mandatory for mining operations at regular intervals where the noise level is more than 85dB. • Base line Audiometry is taken to every employee at Initial Medical Examination. High risk Audiometry is carried out once in a year at every PME centers for the employees who are working at high decibel noise (SDL, LHD, HEMM and Drill Operators etc.) • We are getting mild cases of NIHL cases, due to higher mechanization and are kept in surveillance and these cases will be monitored periodically with an advice to wear hearing protective measure. Confirmed case of NIHL will be advised for change of job to a low noisy and healthy work place. <p>NLC: Pneumoconiosis detection kit is already available in NLC General Hospital in accordance with ILO classification and there is no workman affected in NLC due to occupational health hazards so far.</p> <p>TSL: Hospital is well equipped to diagnose Pneumoconiosis. Rehabilitation and redeployment of affected workmen will be carried out in line with the provisions of safety norms.</p>
15(i)	Slope Monitoring System	All CMDs to sort out the operational issues related to procurement of pit / dump slope monitoring systems at the earliest and implement the same in an years' time.	<p>CIL: Company-wise status is as under:</p> <p>ECL: An R&D project has been undertaken by CIMFR, Dhanbad. CIMFR will start slope stability monitoring in ECL mines shortly.</p> <p>BCCL: 7 nos. of Total stations have been provided in</p>

			<p>Area. 11 Nos. of Total stations with accessories are also in procurement process. 9 (Nine) Laser Scanner equipment is under process of procurement.</p> <p>CCL: 2 nos of 3D Terrestrial Laser Scanner are presently under procurement along with 30 nos. of Total Stations. This would help a great deal in monitoring slope stability which is presently being done through 13 nos. of Total Stations.</p> <p>NCL: Tendering has been done for procurement of 4 nos. of slope stability Radars.</p> <p>WCL: One Slope Stability Radar has already been installed at Sasti OC.</p> <p>SECL: 3 Nos. of 3-D RADAR are under process of procurement for monitoring stability of slopes of dumps and high wall to ensure safety in mega OCPs (at Dipka, Kusmunda & Dhanpuri).</p> <p>MCL: Scientific studies of all the dumps are being conducted by CMPDI. Out of 15 operational mines, slope stability studies of 6 mines (1. Lajkura, 2.Kulda , 3. Samaleswari 4. Lingaraj , 5. Bhubaneswari & 6. Ananta) has already been completed and study for remaining 9 mines, shall be conducted soon. Accordingly, the operational issues related to procurement of pit / dump slope monitoring system shall be sorted out for implementation.</p> <p>CMPDI: CMPDI has already advised the producing companies to adopt the suitable slope monitoring system. These are envisaged in the PR.</p> <p>SCCL: Wherever required the slope monitoring of pit/slope studies are being conducted with research organizations like CIMFR etc.</p> <p>One collaborative research project on framing of guidelines for the design of slope of pit/dump is in advance stage of implementation with CSIRO, Australia. After framing the guidelines by scientists of CSIRO, Australia, slope of pit/dump will be designed accordingly to prevent the failure of slope of pit/dump, thereby preventing the danger to the persons and machinery in the vicinity.</p> <p>NLC: Safety measures are implemented to avoid failure in Dump/spoil bank as per the guidelines given by DGMS and based on the recommendation of CIMFR, Dhanbad and NIT, Trichy after conducting the scientific field study in NLC Mines.</p>
15(j)	Training of mine employees	Mandatory 1(one) week training of all the front-line supervisory officials for improving their knowledge, skill and safety awareness.	<p>CIL: Being Implemented. Subsidiary-wise status is given in <i>Annexure - XIII</i>.</p> <p>SCCL: The Front Line Supervisors are being imparted 12 days training programme once every 5 years to improve their Knowledge, skill and safety awareness i.e. every year 1/5th of Supervisors existing will be covered, so that all the supervisors will be covered in 5 Years.</p> <p>NLC: Mandatory 1 (one) week training of all the front line supervisory officials for improving their knowledge, skill and safety awareness would be given.</p> <p>TSL: Safety management training to front line supervisor for one week is being provided.</p>
15.(k)	Protocol of security of explosive magazine	A protocol should be finalized for security of explosive magazine and implemented within next three months.	<p>CIL: Protocol for security of Explosive magazines has been finalized and the same is being implemented in all subsidiaries of CIL.</p> <p>SCCL: The Explosive Magazines have been provided, with ample coverage of security, with constant monitoring.</p> <p>NLC: The Magazine is constructed in a single place for all the Mines at Neyveli and for the Barsingsar Mine separate Magazine is constructed with a boundary wall</p>

			<p>and is guarded round the clock by Armed Central Industrial Security Force (CISF) Personnel to ensure security and avoidance of theft. Regularly co-ordination meetings are being held by Chief General Manager with CISF personnel with regard to the security arrangement for the magazine and the requirement are being met with. In addition, provisions of Tower Lighting and RCC Construction for the CISF personnel are made available near the magazine.</p> <p>TSL: For security of magazine our company's own security personals are being deployed. Heightening of boundary wall with concertina fencing have been done in all our magazines.</p>
15.(m)	Contractor workers safety :	He advised DGMS to review the VTC rule in light of the concern shown by the members.	<p>NLC: the VTC classes are conducted only as per circular issued by DGMS based on the recommendations given by National Safety Conference.</p>
15.(n)	Inspection of private mines	The Sub-committee may be re-constituted for inspection of the private coal mines in the country to assess the safety and occupational health status thereat in next 3 months time.	<p>MOC: Sub-Committee of the Standing Committee on Safety in Coal Mines has inspected West Bokara Opencast mine of M/s TISCO on 4th & 5th November, 2015 to assess the safety and occupational health status. Inspection report submitted by the Sub-committee is at Annexure-XIV. The recommendation of the Sub-Committee has been sent to the TCL-West Bokaro mine for implementation.</p> <p>TCL: The action taken on Recommendations of Sub Committee on Safety in Coal Mines with regard West Bokaro Collieries is given at Annexure - XV.</p>



Govt. of India/ भारत सरकार
Ministry of Labour and Employment
श्रम एवं रोजगार मंत्रालय
Directorate General of Mines Safety
खान सुरक्षा महानिदेशालय
DHANBAD - 826001, JHARKAND

Annex - I



DGMS (Genl.) Circular No. 69 of 2015

Dhanbad, Dated 23/04/15

To

All Owners, Agents and Managers of Coal Mines


Subject: Approved type of equipment, materials and appliances to be used in coal mines.

Sir,

In 39th meeting of the Standing Committee on Safety in Coal Mines held on 13.03.2015 at New Delhi under the Chairmanship of Hon'ble Minister of State (I/C) Coal, an observation was made that substandard quality of safety equipment like cap lamps, shoes etc. were being provided to the workers and officials, which was a serious compromise on the front of safety.

In this connection, the Owners, Agents and Managers of all coal mines are hereby informed that the equipment, materials and appliances requiring approval of DGMS by general or special order(s), under provisions of the Coal Mines Regulation, 1957, have been clearly specified in the Approval Policy, 2015 of DGMS or its revised version, which is available on DGMS official website (www.dgms.gov.in).

In view of the above, the Owners, Agents, and Managers of all coal mines are hereby directed to see that, in case of equipment, materials and appliances requiring approval by such general or special order(s), the conditions with regard to the standards, parameters, quality, testing etc. stipulated in the respective orders are strictly complied with. The Owner, Agent, and Manager of every mine shall also formulate a system for quality control of such equipment, materials, and appliances and implement the same at the time of their procurement and use in the mine(s).


(Rahul Guha)

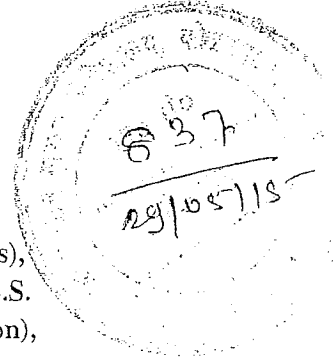
Director General of Mines Safety

361
15/6/15

DDG/DG to please see/record A

Note for file

Name of Mine : DVC Bermo Mines,
Name of Owner : M/s. DVC(Damodar Valley Corporation),
Name of Agent : Shri A.K. Thakur(IClass),
Name of Manager : Shri Mithilesh Kumar (IClass),
Inspecting Officer : Shri E. Jayakumar, DMS & S.S. Soni, DDMS(Koderma Region),
Date of Inspection : 20-05-2015.



Sub: Action taken report on the apprehension of danger to the Inclines of Kargali(BSI) underground Mine due to the heavy blasting being carried out in nearby DVC Bermo Mine.

Introduction:

Shri Ganesh Kumar, Section officer, Ministry of Labour and Employment, New Delhi, forwarded the minutes of the 38th standing committee meeting on safety in Coal mines held on 13.03.2015, in New Delhi, to the Director General of Mines Safety, Dhanbad, with a request to submit action taken report(ATR), on point no. 8 pertaining to this Region, in which Shri Rajendra Singh, President of Indian mine workers' Federation (INTUC), drew the attention of DGMS to the danger of the Safety to the inclines of B&K area of M/s C.C.L, arising out of heavy blasting of OC mine of M/s DVC being operated nearby. The above was endorsed to this office.

I, accompanied by Shri S.S.Soni, DDMS, Koderma Region inspected DVC Bermo mine on the above mentioned date to enquire into the matter. Sri A.K. Thakur, Agent, Mithilesh Kumar, manger, Deepak Kumar, ACM, S.D.Singh, Safety officer, Prateek Lama, Blasting officer, B.K Mishra, surveyor, other mine officials including Overman and Miming Sirdars, were present during discussion and inspection of the mine and Sri M.K. Pasi, Manager Kargali U/g mine(also called BSI underground Mine) and Vinod Kunar, Surveyor of of same, were also present during discussion and enquiry.

Background Information :

In this mine, developed Bermo seam about 11.9m to 13.7m thick, dipping 1 in 7 in S 8^o 40' E direction, is being extracted within danger zone but beyond 100m of surface structures by deep hole blasting and with Heavy Earth Moving Machinery. Permission for the same under Regulations: 98 & 100(1) & 170(1A&1B) of the Coal Mines Regulations, vide this Directorate's letters no KR/2134, dated 19.10.2000 & vide letter No. KR/1012, dated 23-08-2004 respectively, was obtained from this Directorate. Extraction work in DVC mine was stopped for the last 2 years for want of men and machineries and started recently in December, 2014.

Removal of overburden and extraction of Coal was entrusted to an outsourcing Agency M/s BKB Transport (P) Ltd under the supervision of M/s DVC Bermo Mine official.

The mine manager was assisted by 3- Assistant Managers (2-Iclass and 1-Overman, 05- Mining Sircars and 02 Surveyors respectively. One Graduate Engineer with one year experience was appointed as Blasting Officer.

This mine has common boundary with Karo-1 OCP on North and Kargali underground mine (also called BSI mine) on South/ South-East side respectively. Kargali underground mine (BSI) was the nearest incline operated mine and no other incline operated mine was nearby DVC Bermo mine.

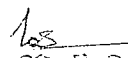
Inspection & Observations:

First of all, surface plan No. GM/B&K/Survey 103, dated 12.12.2012 of B&K area and underground plan No.DM-524/05, dtd 04-010-2005 of DVC Bermo mine, were studied. Study of the plans revealed that the aerial distance from present blasting place- which is nearest to the BSI underground incline mouth from DVC Bermo mine-was about 1800m and the belowground workings of BSI mine were 1320 respectively.

To check the effect of blasting in DVC Bermo mine on the incline mouth of adjacent BSI U/g mine, two rounds of blasting were carried out in DVC Bermo mine (9&10 shots in each round of 5.6m deep with 2.3m X 2.5m burden and spacing respectively. Charge per delay was kept 16.7 Kg as stipulated in the permission) and the resultant vibrations of the blasts were checked with approved Vibro meters. It was observed in both the blasts that the reading of vibro-meter was nil and no vibration was felt at the Incline mouth nor in the underground workings of Kargali U/g mine. Manager of Kargali Underground mine also stated that he had never felt any vibrations or movement in belowground workings so far.

Conclusion: From the above observations, it is evident that the Incline mouth opening of Kargali U/g mine situated at a distance of 1800 m from present blasting place of DVC Bermo mine is not affected by the heavy blasting in DVC Bermo mine as apprehended. Hence it may be concluded that no danger is apprehended to the Incline of Kargali (BSI) underground Mine due to the heavy blasting being carried out in DVC Bermo mine. A

A copy of the minutes of meeting, hand sketch plan and computer generated area surface plan showing the mine boundaries and the distance between the place of blasting and incline mouth and underground workings of Kargali (BSI) U/g mine, are enclosed.


29-5-2013
(इ. जयाकुमार)
खान सुरक्षा निदेशक
कोडरमा क्षेत्र



GOVERNMENT OF INDIA
MINISTRY OF LABOUR & EMPLOYMENT
DIRECTORATE GENERAL OF MINES SAFETY



DGMS (Tech.) Circular No. 06 of 2015

Dhanbad, Dated 23/09/15

To

All Owners, Agents and Managers of Mines

Subject: Arrangements and facilities for occupational health surveillance of persons employed in mines.

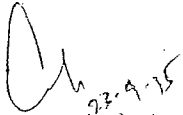
Sir,

The 39th meeting of the Standing Committee on Safety in Coal Mines was held on 13.03.2015 under the Chairmanship of Hon'ble Minister of State (I/C) Coal at New Delhi. In the meeting, among others, concerns were raised about the poor arrangements prevailing in PME Centers of the coal companies. It was highlighted that none of the hospitals / PME Centers of coal companies were properly equipped with pneumoconiosis detection kits, which might lead to the cases of pneumoconiosis being mistakenly diagnosed as tuberculosis. It was also stressed in the meeting that protocol and guidelines should be given for rehabilitation of pneumoconiosis patients.

Needless to say, pneumoconiosis is a preventable but incurable disease. As mining is a dust prone industry, it is imperative on part of the mine managements to see that all suitable measures for prevention of dust generation and for proper health surveillance of the persons employed in mines are given utmost priority and importance.

Several guidelines and directives relating to occupational health surveillance in mines, including conduct of Initial and Periodical Medical Examinations for early detection of pneumoconiosis, silicosis and other occupational diseases; training of medical officers in occupational health and for use of standard ILO chest radiograph for classification of pneumoconiosis and silicosis; measures to be taken for prevention of such diseases and rehabilitation of affected persons; and for the equipments and other arrangements to be provided in PME Centers; have already been issued by DGMS time to time through circulars, such as DGMS Circular (Tech.) Nos. 1/1989, 4/1992, 2/1994, 3/2000, 4 & 5 of 2007, 1/2008, 1/2010, 3/2011, 5/2011 and 3/2012.

The Owners, Agents and Managers of all Mines are, therefore, requested to review their occupational health surveillance facilities with reference to the above guidelines to identify the gaps and take necessary measures to strengthen such facilities. They are also requested to make a system of undertaking such reviews periodically for continual improvement.



(Rahul Guha)

Director General of Mines Safety

Annexure - IV

Details of Overman's Certificate Examination conducted during last 5 years.

Sl. No	Year	No. of candidates appeared	No. of candidates passed
1	2010	1437	186
2	2011	1378	197
3	2012	1338	204
4	2013	1276	206
5	2014	1054	180

Details of Sirdar's Certificate Examination conducted during last 5 years.

Sl. No	Year	No. of exams conducted in all zones	No. of candidates appeared for exam	No. of candidates passed the exam
1	2010	14	596	214
2	2011	16	750	245
3	2012	12	399	135
4	2013	13	655	238
5	2014	15	564	224

Steps being taken to achieve zero accident rate -

- Implementation of Risk Assessment based Safety Management Plan (SMP).
- Formulation of Risk Assessment based Safe Operating Procedure (SOP).
- Formulation of Principal Hazard Management Plan (PHMP) for each & every mine to eliminate / mitigate disaster potential of mine and implement recommendations thereof.
- Emergency response system based on Trigger Action Response Plans (TARPs).
- Adoption of Proximity warning devices for dumpers.
- Training on Simulators for dumper operators.
- Slope Stability Monitoring system.
- Gas Chromatograph for better analyzing of mine air samples.
- Environmental Tele-monitoring System for continuous assessment of mine environment.
- Introduction of UG communication & Miner Tracking system.
- Installation Man Riding System.
- Strata Monitoring Devices.
- Intensive training and review to improve competency of front line officials.
- Skill up-gradation training program for workmen to adapt to the changing technology.
- Engaging social science institutes for improving behavioural aspects for safe working.
- Informal risk assessment training of workmen for hazard awareness (Take 5).
- Take 5 (Personal Risk Assessment) is a simple process to ensure that all work activities are given a final check to identify and control potential hazards . TAKE-5 process is as under:
 - Stop, step back, observe.
 - Think through the task.
 - Identify the hazards.
 - Control the hazards.
 - Complete the task.

ANNEXURE-VI

Company-wise details of provision of mining shoes

Company	Status
ECL	Mining Shoes: a) Quantity approved to issue RC order against requirement 2014-15 = 120600 pairs, & 2015-16=120600 pairs. b) Available quantity was 107778 pairs. For which initial supply order has been issued. Gum Boots :a) To comply with the directives prescribed in the purchase policy of Govt. of India, the ongoing advance stage procurement of 1823 pairs of Gum boots has been done. b) Further action has been initiated by floating tender for 2600 pairs .
BCCL	Mining Shoes : Supplied quantity in 2014-15—66619 Pairs, Issued Quantity 2014-15—42848 Pairs Standard- as per ISI and as approved by DGMS Gumboot – 2014-15 - Issued –4207 RC of the items has been done and under procurement in 2015-16. (5000 Pairs already supplied under RC basis and issued.)
CCL	Mining Shoes:- During 2014-2015, 46,500 pairs of mining shoes of duck Back Brand were procured and during 2015-16 procurement of 30,000 pairs of mining shoes is under advance stage of procurement and order is likely to be placed within 15 days. Gum Boots :- During 2014-15 , 5000 pairs of Gum Boots were procured and order of 15,00 pairs of Gum boots is likely to be ordered within a month.
NCL	14000 pairs of Liberty brand mining shoes have been provided to eligible employees during 2015-16.
WCL	Mining Shoes : a) Quantity approved to issue RC order against requirement of 2014-15 = 76,800 pairs b) Available quantity was 63,918 pairs. For which initial supply order has been issued for 76,800 pairs. c) Further action has been initiated by floating tender for conclusion of RC for next 2 years. Gum Boots : a) To comply with the directives prescribed in the purchase policy of Govt. of India, the ongoing advance stage procurement tender had to be short closed. Therefore, WCL, as an exigency measure, has issued RC supply order for 7,333 pairs of gum boots. b) Further action has been initiated by floating tender for conclusion of RC.
SECL	Adequate quantity of quality mining shoes (DGMS approved) are provided to all eligible employees.
MCL	Presently sufficient numbers of mining shoes of proven quality is being issued to all employees of MCL.
NEC	2407 pairs of mining shoes have been provided to all eligible employees in 2014-15.

ANNEXURE-VII

Safety Budget & Expenditure for the year 2014-15 and year 2015-16 under capital head

(Amount in Rs Lakh)

Company	Year : 2014-15		Year : 2015-16
	Safety Budget (capital)	Expenditure	Safety Budget (capital)
ECL	7975.00	4598.00	6628.00
BCCL	2524.38	2034.65	2263.98
CCL	1162.65	879.40	656.00
NCL	104.00	72.00	1198.00
WCL	533.00	205.47	1200.00
SECL	2000.00	105.00	2685.00
MCL	961.44	826.83	715.32
NEC	72.59	45.79	135.10
CIL (Total)	15333.06	8767.14	15481.40

ANNEXURE-VIII

Company-wise details of procurement of Mist type water sprinkling

Company	Nos. of mines to be covered	Present status
ECL	All OC mines of 5 Areas	To be installed in 5 Areas for mine haul roads and coal transport roads. 1. Rajmahal (already under process), 2. Kunustoria Area 3. S.P Mines Area, 4. Sonepur Bazari Area & 5: Pandeshwar Area
BCCL	14	Tendering for 14 Nos of water tankers with Mist water spraying system has been processed.
CCL	All OC mines	Scheme is under preparation for all Areas.
NCL	All OC mines	A. Operative in CHP, crusher, bunker, Silo etc. at - Nigahi OCP, Amlohri OCP, Jayant OCP, Dudhichua OCP, Bina OCP, Khadia OCP. B. Under commissioning - Block B OCP, Krishnashila OCP; C. 3 no. mobile truck mounted 12 KL water tanker with mist spray system is under procurement for places other than haul road. D. 8 (four) nos. of 70 KL capacity high pressure water spray system (fixed type) are running which are equivalent to mist spray. <ul style="list-style-type: none"> • Atomizer type (a variant of mist type) water sprinkling system have been provided in all unloading points and silos. • Further for other places, procurement of Water Mist type spraying system is under process.
WCL	All OC mines	<ul style="list-style-type: none"> • Already provided in Ghugus OCP of Wani Area. • Further, such mist type water sprinkling systems are under procurement process for Wani siding (fixed type) and Gondegaon OC (Mobile type).
SECL	All OC mines	Already provided in CHP of Gevra & Dipka OCP. Procurement of Water Mist type spraying system is under process for all areas.
MCL	All OC mines	Out of 54 water sprinklers of M/S BEML, in 1 st phase 10 nos. have been ordered for converting into Mist type water sprinkling system by BEML (OEM). It has also been proposed to procure 10 nos. new Mist type water sprinkling system in 1 st phase.

ANNEXURE-IX

Phasing out of manual loading

Company	Nos. of mines	Name of mines where manual loading being done	Action proposed
ECL	11	1. Nakrakonda UG 2. Kalipahari UG 3. Parbelia UG 4. Dubeswari UG 5. Sodepur RO UG 6. Chinakuri I UG 7. Chinakuri 3 UG 8. Narsamuda UG 9. Bejdih UG 10. Patmohana UG	To be mechanized within 2 years
BCCL	1	(Very high gradient - 1 in 3) Bhowra (South)	Decided to be closed shortly.
CCL	9	(High gradient - 1 in 3) 1. Dhori Khas 2. Govindpur UG 3. Jarangdih UG 4. Urimari Incline 3 & 4 5. Swang 6. Argada UG 7. Sirka UG 8. Topa UG 9. Khas Mahal Phase II UG	Proposed to be converted to OC.
WCL	1	(High gradient - 1 in 3) Chattarpur-II	Presently attempt has been made by introducing one SDL in the Upper Workable Seam and is under trial. Based on this trial, the unit / area management has proposed one mechanized depillaring district with two more SDLs in Upper Workable Seam.
SECL	0		
MCL	0		
NEC	1	Tipong UG • Very high gradient. (Available technology is very rare)	Method of liquidation of coal is yet to be finalized.
CIL	23		

ANNEXURE-X

Company-wise details of using of resin capsules

Company	Nos. of mines using resin capsules	Name of mines where resin capsules used
ECL	2	1. Shyamsundarpur, 2. MIC Jhanjra
BCCL	5	1. Moonidih, 2. Lohapatti, 3. Maheshpur, 4. Basantimata, 5. PB project
CCL	2	1. Ray-bachra, 2. Churi
WCL	17	1) Murpar 2) Tandsi 3) BC 3&4 4) Sasti UG 5) Kumbharkhani 6) Vishnupuri-2 7) Mathani 8) Thesgora 9) Mahakali 10) DRC 6,7 & 8 11) AB Incline 12) Saoner I 13) Patansaongi 14) Saoner II 15) Saoner III 16) Nandgaon 17) CRC.
SECL	40	1. Rehar 2. Gayatri 3. Kumda 4. Balrampur 5. Rani Atari 6. Vijay West 7. NCPH (New) 8. North Chirimiri 9. Bhatgaon 10. Nawapara 11. Pinoura 12. Piparia 13. Rajendra 14. Khairaha 15. Damini 16. Jamuna 1 & 2 17. Bhadra 18. Meera 19. Bartarai 20. Dhelwadih 21. Singhali 22. Surakachar 3 & 4 23. Surakachar 5&6 24. Surakachar main 25. Balgi 1&2 26. Balgi 3 & 4 27. West JKD 28. Rajnagar RO 29. Haldibari 30. Somna 31. Churcha RO 32. Bartunga 33. NCPH (Old) 34. Mahamaya 35. Nowrozabad (West) 36. Dhanpuri 37. Bangwar 38. Kurja 39. Kapildhara 40. Bagdewa.

MCL	4	1. Nandira , 2. Talcher 3. Orient Mine no. 4 4. Orient Mine no. 3.
NEC	-	No roof bolting
CIL	70	

ANNEXURE-XI

Company-wise details of online gas monitoring/detecting apparatus

Company	Nos. of LMD installed	ETMS	Name of mines where ETMS already installed	Programme for ETMS installation
ECL	33	3	1. Narsamuda 2. Kalidaspur 3. Chinakuri Mine- 1	5 nos (next 3 yrs)
BCCL	45	0		1 (Moonidih)
CCL	0	0		1 (Sawang)
WCL	0	6	1.DRC 2. HLC-I 3. Mahakali 4. BC 3&4 5. Sasti UG 6. NMC - III	9 nos (next 3 yrs)
SECL	0	0		4 nos. (Bagdeva, Churcha RO, Paji, & Beherabandh) (Under process)
MCL	0	4	1. Orient Mine – 1 & 2 2. Orient Mine – 3 3. Orient Mine – 4 4. Talcher Colliery	1 no.
NEC	3	1	Tipong	
CIL	81	14		

ANNEXURE-XII

Company-wise status of Occupational Health Services

Company	PME Center	Doctors for PME	Para medical staffs for PME	X-Ray M/C	Spirometer	Audio meter	Pathology Lab.
ECL	14	14	14	17	12	14	18
BCCL	9	9	21	9	9	9	9
CCL	13	13	45	13	13	13	12
NCL	12	12	37	6	11	11	12
WCL	10	10	11	10	10	10	10
SECL	14	14	86	18	12	14	14
MCL	2	10	9	6	2	2	5
NEC	1	2	2	1	1	1	1
CIL	75	84	225	80	70	74	81

ANNEXURE-XIII

Status of training including VT & Safety in CIL in last 5 years

Company	Year	In-house			Outside			Total	
		Executive	Non-executive	Sub-total	Executive	Non-executive	Sub-total	Executive	Non-executive
ECL	2010-11	73	18602	18675	56	8	64	129	18610
	2011-12	88	20587	20675	57	12	69	145	20599
	2012-13	113	20995	21108	42	11	53	155	21006
	2013-14	116	20910	21026	74	3	77	190	20913
	2014-15	45	19690	19735	104	3	107	149	19693
BCCL	2010-11	130	15347	15477	0	0	0	130	15347
	2011-12	69	14508	14577	0	0	0	69	14508
	2012-13	67	16052	16119	0	0	0	67	16052
	2013-14	43	17511	17554	75	0	75	118	17511
	2014-15	227	14590	14817	71	0	71	71	0
CCL	2010-11	41	336	377	8	0	8	49	336
	2011-12	49	241	290	4	0	4	53	241
	2012-13	81	419	500	9	0	9	90	419
	2013-14	46	340	386	0	8	8	46	348
	2014-15	57	331	388	15	7	22	72	338
NCL	2010-11	530	7396	7926	13	0	13	543	7396
	2011-12	597	4999	5596	20	0	20	617	4999
	2012-13	797	3625	4422	17	0	17	814	3625
	2013-14	830	5042	5872	0	0	0	830	5042
	2014-15	670	4280	4950	16	0	16	686	4280
WCL	2010-11	1022	17922	18944	222	68	290	1244	17990
	2011-12	1540	18238	19778	207	85	292	1747	18323
	2012-13	2238	18204	20442	276	117	393	2514	18321
	2013-14	2876	16722	19598	327	187	514	3203	16909
	2014-15	3454	17982	21436	742	126	868	4196	18108
SECL	2010-11	472	1427	1899	29	0	29	501	1427
	2011-12	503	1384	1887	21	0	21	524	1384
	2012-13	451	1313	1764	22	0	22	473	1313
	2013-14	565	1218	1783	15	0	15	580	1218
	2014-15	79	1250	1329	13	0	13	92	1250
MCL	2010-11	0	3783	3783	35	22	57	35	3805
	2011-12	0	3870	3870	38	28	66	38	3898
	2012-13	0	3844	3844	44	26	70	44	3870
	2013-14	2	3856	3858	33	35	68	35	3891
	2014-15	0	3048	3048	40	15	55	40	3063
NEC	2010-11	0	178	178	6	0	6	6	178
	2011-12	52	173	225	0	0	0	52	173
	2012-13	27	225	252	0	0	0	27	225
	2013-14	64	327	391	0	0	0	64	327
CIL	2010-11	2268	61208	63476	334	76	410	2602	61284
	2011-12	2898	60130	63028	309	97	406	3207	60227
	2012-13	3774	64677	68451	410	154	564	4184	64831
	2013-14	4542	65926	70468	524	233	757	5066	66159
	2014-15	851	28599	29450	259	25	284	1110	28624

- ECL: Training provided to 275 supervisory officials.
- NCL: 195 Front Line Supervisors have been trained during 2015.

Training Centres	Nos. of supervisors	
MTI	976	Total nos of frontline supervisory officials trained till 2015 - 2126
BTI	817	
MEETI	305	
Imparted training at outside institution, in India	28	

- **WCL:** Mandatory 1 (one) week training of all the front line supervisory officials for improving their knowledge, skill and safety awareness is being imparted in Area Group VTCs. The same will be completed by 31st December 2015.

MCL : MCL is imparting training to frontline supervisors for developing updated skill at MTI-Burla, BTI-Lahkanpur, MEETI-Talcher and at outside institutions in India .

Inspection of West Bokaro OCM of M/s Tata Steel Limited by the
subcommittee of Standing committee on safety in Coal Mines.

1	Name of Mine	West Bokaro Opencast Mine Quarry- SE
2	Date of Inspection	4 th November, 2015
3	Inspection Team	1.Mr. Peeyush Kumar, Director (Tech), MoC 2.Mr. CJ Joseph Secretary. AITUC 3.Mr. Deo Kumar, Dy. DMS, DGMS, Ramgarh 4.Mr. DD Tripathi. GM (S&R) CIL
4	Name of Owner	Sri T V Narendran, MD Tata Steel
5	Name of Agent	Sri N K Gupta
6	Name of Manager	Sri Barun Kumar Banerjee
7	Name of Safety Officer	Sri Shyam Lal Mahto
8	Name of Colliery Engineer	Sri S S Rout
9	Name of Welfare Officer	Sri Biresh Chandra Pathak
10	Name of Surveyor	Sri B N Dubey & Sri Abhinay Tiwari

A. General Information of Mine

a	Name of Mine	West Bokaro Opencast Mine Quarry- SE
b	Location and Address	West Bokaro Opencast, Quarry-SE; Tata Steel Limited. P.O.:Ghatotand Dist.: Ramgarh, JHARKHAND Pin - 825314 Telephone no. 06545 -262184
c	Name of Seams	XIX (T), X(B) X(combined) . IX, VIII, VII, VI & V
d	Number of seams	07
e	Total Reserve	61.04 million tonne
f	Balance Reserve	28.04 million tonne
g	Annual Production	3 million tonne
h	Total Manpower (Dept)	305
i	Contractor worker	270
	Total	575

B. Accident Statistics

	2013	2014	2015
Fatal	Nil	Nil	Nil
Serious	Nil	Nil	1
Dangerous Occurrence	Nil	Nil	Nil

C Coal Seam

Quarry_SE Coal seam and Parting

Coal Seam/Prating	Thickness in mt (Range)
Top OB	15-27
XI Seam	2-2.5
X Parting	30-47
X Seam (Upper)	1- 1.5
X Band	1-1.25
X seam (Lower)	0.9-1.20
IX Parting	7-9.5
IX Seam	1.5-2.00
VIII Parting	3-4.2
VIII Seam	3.5-4.3
VII Parting	15-19
VII Seam	7-9.5
VI Parting	13-15
VI Seam	3.8-4.2
V Parting	11-15
V Seam	3.5-4.2

D. History of Inundations

- a. Danger from Surface water Nil
- b. Danger from adjoining water body na
- c. HFL 334 m Bokaro River – year 2015

E. IME & PME

- a. Details of PME & IME in 2014 & 2015 62, 96
- b. Details of Hospital / Dispensary One Central Hospital, & 05 Dispensary

F. Training

- a. Trainable Manpower 305
- b. Special Training 182
- b. Simulator Training 272

G. HEMM

- a. Population of Machine 64
- b. Structural Stability Being done periodically
- c. Availability & Utilization % 89% & 68% (Ex); 83% & 48% (RD)
- d. Proximity warning devices provided
- e. Rear View Camera provided
- f. Road worthiness of equipments being checked periodically

H. Mine Working

- a. Stripping ratio 1:3.67
- b. Permission: Notice of opening: SHQ/107(1)37/2002/171/Dhanbad. Dated 01.07.2003 Permission for deployment of HEMM & use of Deep Hole blasting RR/ West Bokaro (Q-SE)/ form 98/ 05/66 dated 12.01.2004, hole drilling and blasting.
- c. Benches and slope - Maximum 14m, 47°
- d. Slope stability monitoring system- Mines & Dumps slope stability monitoring system through Total Station

I. Details of occupational deceases -

NIL

J. Survey

- a. Statutory plans Being maintained as per statute
- b. Quarterly Survey Being done , plans maintained
- c. Statutory requirement of Surveyor complied.
- d. Supporting Man power provided
- e. Joint Survey plan with adjoining mines maintained
- f. Instruments Three nos.Total station. One levelling instrument , three plotter three survey software

K. Lighting

Illumination survey being done on regular basis.

L. Dust Management - Four nos. 40 KL water sprinkler in active mining area and haul road and fixed installation of mist type sprinklers in CHP, crusher etc.

M. Safety management plan & Safety Audit : Plan prepared and being reviewed on regular basis for improvement of safety standards

N. Details of Outsourced work HEMM maintenance by OEM

O. Personal protective equipment provided to all employees

P. Noise Pollution Noise level being measured for all HEMM's recommendation

Q. ISO Certification 9001, 14001, and 18001.SA 8000 : Certification issued to the

mine



The Committee appreciated the following activities of West Bokaro Division

- a) Usage of Simulator in Training System to train the operators for (HEMM) Heavy Earth Moving Equipment being used in the Mines
- b) Usage of Electronic detonators, nonel and presplitting for controlled blasting
- c) Pressurised water sprinkling for dust suppression on haul roads
- d) System of reporting first aid and accident cases through SMS to the concerned authorities including the medical team.
- e) Use of IT in Safety Management System
- f) West Bokaro has the radiation monitoring system in Hospitals

GM (WB) explained that in addition to the Periodical Medical Examination, West Bokaro is also conducting annual Health check-up under Wellness @ workplace, ascertaining the Health Index of all its employees by conducting various blood tests viz. FPS, PPS, Cholesterol & Obesity etc. and physical tests. The low index holder is monitored closely to avoid any medical complications. Stress management programme for the employee and their spouse was also appreciated by the team.

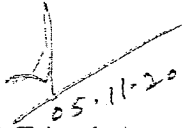
Some of the important initiatives being carried out by West Bokaro Division are:

- a) Round the Clock dust monitoring system in the workplace as well as in the colony
- b) Certification under SA 8000
- c) Policy, Safety Governance and Reviews
- d) Online safety monitoring system
- e) Hazard Identification of activities
- f) Contractors management & Contractors competency evaluation
- g) "Find it, own it and fix it" and "Committed to Zero" concept to achieve Zero Harm.
- g) Elimination of Man-Machine Interface and Safety Kaizen to improve workplace
- h) Implementation of OSHMS
- i) Class room training programme on SOP & Mock drill to improve safety awareness
- h) Mass and Tool box meetings at shop floor for safety communication at shop floor


The Committee however noted that the Mine Closure Plan is not approved. GM (WB) ~~the~~ mentioned that in this regard MoC observation is being complied and CMPDI has been engaged for preparation of revised Mine Plan.

The committee observed the following during their visit to Mines and recommended for system improvement

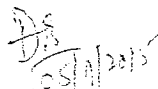
- a) Flat Storage of mine plans should be adopted
- b) Surveyors' diary should be updated
- c) Requirement of dressing of high walls in coal and OB benches.
- d) Pitching with pebbles inside the sub-station to be improved.
- e) Earth pit in the sub-station should be kept open and located inside the sub-station
- f) Lightning arrester in sub-station needs to be strengthened .
- g) Trimming of Pipal tree near entrance gate of 33 KV receiving sub-station.
- h) Proper maintenance of discharge rod in sub-station
- i) Advised to provide appropriate hand gloves for handling electrical appliances
- j) Advised to improve documentation of shut down procedure .
- k) Suggested to increase audio visual inputs in training module with a view to enhancing the quality of training.


05.11.2015

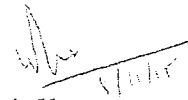
(D D Tripathy)
General Manager (S&R) CIL


05/11/15

(C J Joseph)
Representative AITUC


05/11/2015

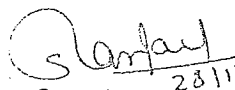
(Deo Kumar)
Dy. DMS, DGMS, Ramgarh


5/11/15

(Peeyush Kumar)
Director (Technical)
Ministry of Coal
Convener, Sub Committee

TATA STEEL LIMITED, WEST BOKARO COLLIERIES, PO GHATOTAND, DIST RAMGARH, JHARKHAND

Status of implementation of the recommendation made by the Sub-Committee of MoC visited on 4th and 5th November 2015		
Sl. No.	Recommendations	Status
1	Flat shortage of mine plans should be adopted	Flat storage have started and all mine plans are being kept in the mines, as per statutory requirement.
2	Surveyors diary should be updated	The surveyor was recently joined hence he was not having the diary. Now that diary has been provided to him and the same is being maintained regularly.
3	Requirement of dressing of high walls in coal and OB benches	Dressing of Highwall wherever possible have been done.
4	Pitching with pebbles inside the sub-station to be improved	Job has been completed
5	Earth pit in the sub-station should be kept open and located inside the sub-station	During inspection it was observed that five earth pits were outside the substation and were found open. We have taken action for extending the fencing so that the earth pits are inside the sub-station. The job will be completed by March 16.
6	Lighting arrester in sub-station needs to be strengthened	We have already taken up the job and is expected to complete by March 2016
7	Trimming of Pipal tree near entrance gate of 33 KV receiving sub-station	Job completed.
8	Proper maintenance of discharge rod in sub-station	Corroded discharge rod has been replaced and being maintained.
9	Advised to provide appropriate hand gloves for handling electrical appliance	Implemented
10	Advised to improve documentation of shut down procedure	Implemented
11	Suggested to increase audio visual inputs in training module with a view to enhancing the quality of training.	Implemented


 General Manager
 West Bokaro

AGENDA ITEM NO. - IV

SAFETY STATISTICS

1. Accident Trend in coal mines in India

S	Parameters	2012	2013	2014	2015
1	Number of fatal accidents	79	77	66	54
2	Number of Fatalities	83	82	69	55
3	Number of Serious Accidents	536	456	380	278
4	Number of Serious Injuries	548	468	395	291

Note : Serious injuries of fatal accidents are also considered in computation of number of serious injuries as well as rates for serious injury. Figures updated as on 31.12.2015 and figures for the year 2014 & 2015 are provisional.

2. Analysis of Accident Statistics:

(i) Accident statistics in between 39th & 40th meeting (between 13.03.2015 to 15.02.2016) CIL:

Sl. No.	Parameters	In numbers
1	Fatal accidents	31
2	Fatalities	31
3	Serious accidents	105
4	Serious injuries	111

SCCL:

Sl. No.	Parameters	Number
1	No. of Fatal accidents	6
2	No. of fatalities	6
3	No. of Serious accidents	220
4	No. of Serious injuries	220

NLC:

Sl. No	Parameters	13-03-2015 to 14-02-2016
1	Fatal accidents	2
2	Fatalities	2
3	Serious accidents	2
4	Serious injuries	2

(ii) Fatal accidents and fatalities for the year 2015 compared to 2014 in CIL:

Sl. No.	Parameter	2014	2015	Status
1	Fatal accidents	44	37	Decreased
2	Fatalities	46	37	Decreased

(iii) Company-wise fatal accidents and fatalities in CIL:

Company	Fatal Accidents (FA)		Fatalities(FTY)		Change in FA		Change in Fty	
	2014	2015	2014	2015	Absolute	In %	Absolute	In %
ECL	6	7	6	7	1	16.67%	1	16.67%
BCCL	7	7	7	7	0	0	0	0
CCL	5	1	5	1	-4	-80%	-4	-80%
NCL	6	1	6	1	-5	-83.33%	-5	-83.33%
WCL	9	8	10	8	-1	-11.11%	-2	-20%
SECL	11	10	12	10	-1	-9.09%	-2	-16.67%
MCL	0	3	0	3	3	100%	3	100%
NEC	0	0	0	0	0	0	0	0
CIL	44	37	46	37	-7	-15.91%	-9	-19.57%

(iv) Company-wise, mine-type wise break up of fatal accidents in CIL:

Company	Underground Mine		Opencast Mine		Change in fatal accidents in UG		Change in fatal accidents in OC	
	2014	2015	2014	2015	Absolute	In %	Absolute	In %
ECL	5	5	1	2	0	0	1	100%
BCCL	3	2	4	5	-1	-33.33%	1	25%
CCL	3	0	2	1	-3	-100%	-1	-50%
NCL	0	0	6	1	0	0	-5	-83.33%
WCL	1	5	8	3	4	400%	-5	-62.50%
SECL	7	6	4	4	-1	-14.28%	0	0
MCL	0	0	0	3	0	0	3	100%
NEC	0	0	0	0	0	0	0	0
CIL	19	18	25	19	-1	-5.26%	-6	-24.00%

(v) Company-wise, mine-type wise break up of fatalities in CIL:

Company	Underground Mine		Opencast Mine		Change in fatalities in UG		Change in fatalities in OC	
	2014	2015	2014	2015	Absolute	In %	Absolute	In %
ECL	5	5	1	2	0	0	1	100%
BCCL	3	2	4	5	-1	-33.33%	1	25%
CCL	3	0	2	1	-3	-100%	-1	-50%
NCL	0	0	6	1	0	0	-5	-83.33%
WCL	1	5	9	3	4	400%	-6	-66.67%
SECL	8	6	4	4	-2	-25%	0	0
MCL	0	0	0	3	0	0	3	100%
NEC	0	0	0	0	0	0	0	0
CIL	20	18	26	19	-2	-10.00%	-7	-26.92%

(vi) Cause-wise overall fatal accidents and fatalities in CIL:

Cause	Fatal Accidents		% change	Fatalities		% Change
	2014	2015		2014	2015	
Ground Movement	9	5	-44.44%	9	5	-44.44
Haulage, Conveyor etc.	0	3	100%	0	3	100
Trucks & Dumpers	12	11	-8.33%	13	11	-15.38
Non-transport M/Cs	8	6	-25%	8	6	-25
Electricity	1	3	200%	1	3	200
Mine Fire & Explosion	2	1	-50%	2	1	-50
Others	12	8	-33.33%	13	8	-38.46
TOTAL	44	37	-15.91%	46	37	-19.57

Note - "Others"- Includes 'fall of object / person', 'fall of partings', 'Inundation', 'OB dump slide' & 'Water inrush', 'Miscellaneous'.

(vii) Place-wise overall fatal accidents and fatalities in CIL:

Place	Fatal Accidents		% Change	Fatalities		% Change
	2014	2015		2014	2015	
Underground	15	16	+6.67%	15	16	+6.67
Opencast	20	15	-25.00%	22	15	-31.82
Surface	9	6	-33.33%	9	6	-33.33
Total	44	37	-15.91%	46	37	-19.57

(viii) Employee-type wise break up of fatalities in CIL:

Year	Dept.	Cont.	Total	% of Cont. employees in fatalities
2014	32	14	46	30.43
2015	24	13	37	35.14

(ix) Place-wise break-up of fatalities in CIL:

Place	ECL		BCCL		CCL		NCL		WCL		SECL		MCL		NEC		CIL	
	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
UG	5	5	1	2	2	0	0	0	1	4	7	5	0	0	0	0	16	16
OC	1	1	4	5	1	0	6	1	7	1	3	3	0	3	0	0	22	14
Surface	0	1	2	0	2	1	0	0	2	3	2	2	0	0	0	0	8	7
Total	6	7	7	7	5	1	6	1	10	8	12	10	0	3	0	0	46	37

(x) Cause-wise break-up of fatalities in CIL:

SN	CAUSE	ECL		BCCL		CCL		NCL		WCL		SECL		MCL		NEC		CIL	
		14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
1(a)	Dumpers	0	1	1	2	0	1	3	0	4	0	0	1	0	2	0	0	8	7
1(b)	Truck	0	1	0	0	1	0	1	1	2	2	1	0	0	0	0	0	5	4
	Sub Total	0	2	1	2	1	1	4	1	6	2	1	1	0	2	0	0	13	11
2(a)	Roof/Side fall (Dep)	1	1	0	0	1	0	0	0	0	0	2	1	0	0	0	0	4	1
2(b)	Roof/Side fall (Dev)	1	1	0	0	0	0	0	0	1	0	3	2	0	0	0	0	5	4
	Sub Total	2	2	0	0	1	0	0	0	1	0	5	3	0	0	0	0	9	5
3(a)	Fall from pole (Non electrocuted)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3(b)	Fall from pole (Electrocuted)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3(c)	Electricity	0	0	0	1	0	0	0	0	0	0	1	2	0	0	0	0	1	3
	Sub Total	0	0	0	1	0	0	0	0	0	0	1	2	0	0	0	0	1	3
4	Non-transport m/c	1	0	2	1	2	0	0	0	3	2	0	2	0	1	0	0	8	6
5	Miscellaneous	1	1	1	1	0	0	0	0	0	3	3	1	0	0	0	0	5	6
6	Fall of obj. / per	1	1	3	0	1	0	2	0	0	0	1	1	0	0	0	0	8	2
7	Explosives	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
8	OB slide/Bench Failure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Fire & Explosion	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
10	Winding	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11	Haulage	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
12	Conveyors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Inundation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Grand Total	6	7	7	7	5	1	6	1	10	8	12	10	0	3	0	0	46	37

(xi) Serious accidents and serious injuries in CIL:

Sl. No.	Parameter	2014	2015	% of reduction
1	Serious accidents	183	134	-26.77
2	Serious Injuries	186	141	-24.19

(xii) Company-wise serious accidents and serious injuries in CIL:

Company	Serious Accidents		Serious Injuries		Change in S. accidents		Change in S. injuries	
	2014	2015	2014	2015	Absolute	In %	Absolute	In %
ECL	69	39	69	40	-30	-43.48	-29	-42.03
BCCL	17	9	17	9	-8	-47.06	-8	-47.06
CCL	7	6	7	6	-1	-14.28	-1	-14.28
NCL	9	19	9	20	10	111.11	11	122.22
WCL	36	24	38	27	-12	-33.33	-11	-28.95
SECL	31	33	32	35	2	6.45	3	9.37
MCL	13	4	13	4	-9	-69.23	-9	-69.23
NEC	1	0	1	0	-1	-100	-1	-100
CIL	183	134	186	141	-49	-26.77	-45	-24.19

(xiii) Place-wise break-up of serious injuries in CIL:

Place	ECL		BCCL		CCL		NCL		WCL		SECL		MCL		NEC		CIL	
	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
UG	49	36	4	3	2	2	0	0	18	12	19	21	1	2	0	0	93	76
OC	2	1	7	6	2	3	4	16	12	11	3	6	12	1	0	0	42	44
Surface	18	3	6	0	3	1	5	4	8	4	10	8	0	1	1	0	51	21
Total	69	40	17	9	7	6	9	20	38	27	32	35	13	4	1	0	186	141

(xiv) Cause-wise break-up of serious injuries in CIL:

SN	CAUSE	ECL		BCCL		CCL		NCL		WCL		SECL		MCL		NEC		CIL	
		14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15	14	15
1(a)	Dumpers	0	0	0	1	0	1	2	0	3	2	0	1	4	0	0	0	9	5
1(b)	Truck	0	0	0	0	0	0	1	5	0	3	1	0	1	0	0	0	3	8
	Sub Total	0	0	0	1	0	1	3	5	3	5	1	1	5	0	0	0	12	13
2(a)	Roof/Side fall(Dep)	4	5	2	1	0	0	0	0	2	1	4	3	0	0	0	0	12	10
2(b)	Roof/Side fall(Dev)	0	0	0	0	0	0	0	0	2	1	0	1	1	0	0	0	3	2
	Sub Total	4	5	2	1	0	0	0	0	4	2	4	4	1	0	0	0	15	12
3	Fire, Gas, Dust etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4(a)	Fall from pole (Non-Electrocution)	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
4(b)	Fall from pole (Electrocution)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4(c)	Electricity	0	0	0	0	1	0	0	0	0	0	0	3	0	0	0	0	1	3
	Sub Total	0	0	0	0	1	0	0	0	0	0	0	3	1	0	0	0	2	3
5	Non-transport m/c	0	1	0	0	1	2	1	0	1	1	6	4	2	0	0	0	11	8
6	Miscellaneous	27	20	8	1	1	0	2	3	13	8	5	4	1	2	1	0	58	38
7	Fall of object / persons	33	12	7	6	3	2	3	12	14	10	15	12	3	2	0	0	78	56
8	Explosives	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	1	2
9	OB Dump Failure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Winding	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Haulage	5	2	0	0	1	1	0	0	1	1	1	4	0	0	0	0	8	8
12	Conveyors	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1
13	Inundation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Grand Total	69	40	17	9	7	6	9	20	38	27	32	35	13	4	1	0	186	141

3. **SINGARENI COLLIERIS COMPANY LIMITED:**

(i) Overall Fatality Rate & Serious Injury rate per million tonne of Coal production and per 3 lakh manshifts deployed during last 3 years in SCCL.

Sl.No	Parameters	2013	2014	2015
1	Fatal Accidents	11	8	7
2	Fatalities	12	9	7
3	Serious Accidents	364	270	244
4	Serious Injuries	369	271	244
5	Fatality rate per Mt. Of Coal Production	0.24	0.17	0.12
6	Fatality rate per 3 lakh manshifts deployed	0.24	0.18	0.14
7	Serious Injury rate per Mt. of Coal production	7.36	5.25	4.03
8	Serious Injury rate per 3 lakh manshifts deployed	7.38	5.55	5.00

(ii) Fatal Accidents, Fatalities, Serious Accidents & Serious Injuries during last 3 years in SCCL.

Company	Fatal Accidents			Fatalities			Serious accidents			Seriously injured		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
SCCL	11	8	7	12	9	7	364	270	244	369	271	244

(iii) Cause-wise Fatal accidents & Fatalities during last 3 years in SCCL.

Company	Year	Roof Fall/ side fall		Haulage, Winding, Conveyor		Trucks, Dumpers		Non-Transport M/c.		Explosives		Electricity		Others		Total	
		A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F
		SCCL	2	1	2	-	-	4	4	1	1	-	-	1	1	4	4
2	3		4	-	-	2	2	2	2	-	-	-	-	1	1	8	9
2	2		2	-	-	2	2	-	-	-	-	-	-	3	3	7	7

A = Accident F = Fatality.

(iv) Cause-wise Serious accidents & Serious Injuries during last 3 years in SCCL.

Company	Year	Roof Fall/ side fall		Haulage, Winding, Conveyor		Trucks, Dumpers		Non-Transport M/c.		Explosives		Electricity		Others		Total	
		A	I	A	I	A	I	A	I	A	I	A	I	A	I	A	I
		SCCL	2	1	1	5	5	8	9	1	1	1	1	1	4	2	2
2	2		2	3	3	4	4	1	1	2	2	1	1	1	1	2	2
2	1		1	3	3	3	3	6	6	1	1	-	-	1	1	2	2

A = Accident I = Injured.

(v) Place-wise rate of Fatalities per million tonne of coal production & 3 lakh manshifts deployed during the last 3 years in SCC.

Company	Per M. Te.						Per 3 lakh manshifts					
	Underground			Opencast			Underground			Opencast		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
SCCL	0.37	0.7	0.37	0.15	0.02	0.04	0.12	0.23	0.14	0.48	0.07	0.12

(vi) Place-wise rate of Serious Injuries during the last 3 years in SCCL.

Company	Per M. Te.						Per 3 lakh manshifts					
	Underground			Opencast			Underground			Opencast		
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
SCCL	28.47	23.45	18.37	1.14	0.6	0.68	8.93	7.7	6.72	3.58	1.67	2.08

(vii) Place-wise Fatal accidents & Fatalities during the last 3 years in SCCL

Year	Underground		Opencast		Surface		Total	
	Accident	Fatality	Accident	Fatality	Accident	Fatality	Accident	Fatality
2013	3	4	6	6	2	2	11	12
2014	6	7	1	1	1	1	8	9
2015	4	4	2	2	1	1	7	7

4. **NEYVELI LIGNITE CORPORATION LIMITED:**

(i) Details of fatal and serious accidents for last three years.

Sl. No	Parameters	2013	2014	2015
1	Fatal accidents	-	2	1
2	Fatalities	-	2	1
3	Serious accidents	3	2	3
4	Serious injuries	3	2	3

(ii) Overall fatality rate & serious injury rate per million tonne of coal production and per lakh manshifts developed

Sl. No	Parameters	2012	2013	2014	2015
1	Fatal accidents	4	-	2	1
2	Fatalities	4	-	2	1
3	Serious accidents	5	3	2	3
4	Serious injuries	5	3	2	3
5	Fatality rate per Million tonnes of coal	0	-	0	0
6	Fatality rate per 3 Lakh man shifts deployed	0	-	0	0
7	Serious injury rate per Million tonnes of Coal	0	0	0	0
8	Serious injury rate per 3 lakhs man shift	0	0	0	0

(iii) Fatal accidents, fatalities, serious accident and serious injuries during last 3 years and current year

FATAL ACCIDENTS				FATALITIES				SERIOUS ACCIDENTS				SERIOUS INJURIOUS			
2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015
4	-	2	1	4	-	2	1	5	3	2	3	5	3	2	3

(iv) Cause-wise fatal accidents & fatalities during last 3 years and current year

YEAR	Roof fall/Side fall		Haulage, Winding, Conveyor		Trucks, Dumpers		Non Transport M/C		Explosives		Electricity		Others		Total	
	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F
2012	-	-	2	2	-	-	2	2	-	-	-	-	-	-	4	4
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	1	1	-	-	-	-	1	1	2	2
2015	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	1

A - Accident F - Fatality

(v) Cause-wise serious accidents & serious injuries during last 3 years and current year

Year	Roof fall/ Side fall		Haulage, Winding, Conveyor		Trucks, Dumpers		Non-Transport M/C		Explosives		Electricity		Others		Total	
	A	I	A	I	A	I	A	I	A	I	A	I	A	I	A	I
2012	-	-	2	2	-	-	2	2	-	-	-	-	1	1	5	5
2013	-	-	1	1	2	2	-	-	-	-	-	-	-	-	3	3
2014	-	-	2	2	-	-	-	-	-	-	-	-	-	-	2	2
2015	-	-	-	-	-	-	2	2	-	-	-	-	1	1	3	3

A - Accident I - Injuries

(vi) Place-wise rate of fatalities per Mt of coal production & 3 lakh manshift deployed during last 3 years and current year

Per M.Te								Per 3 Lakh man shifts							
Underground				Opencast				Underground				Opencast			
2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015
-	-	-	-	0.16	-	0.08	0.04	-	-	-	-	0.28	-	0.15	0.07

(vii) Place-wise rate of serious injuries during last 3 years and current year

Per M.Te								Per 3 Lakh man shifts							
Underground				Opencast				Underground				Opencast			
2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015
-	-	-	-	0.20	0.11	0.08	0.12	-	-	-	-	0.35	0.21	0.15	0.21

(viii) Place-wise fatal accident & Fatalities during last 3 years and current year

Year	Underground		Opencast		Surface		Total	
	ACCIDENT	FATALITY	ACCIDENT	FATALITY	ACCIDENT	FATALITY	ACCIDENT	FATALITY
2012	-	-	3	3	1	1	4	4
2013	-	-	-	-	-	-	-	-
2014	-	-	2	2	-	-	2	2
2015	-	-	1	1	-	-	1	1

5. Overall fatality rate and serious injury rate per million tonne of coal production and per 3 lakh manshifts deployed in SCCL/NLC/Other Companies

Owner	Year	Fatal		Serious		Death Rate		S/Inj. Rate	
		Accidents	Fatalities	Accidents	S/Inj.	Per Mt. of Coal	Per Lakh 3	Per Mt. of Coal	Per Lakh 3
GMD	2	2	2	0	0	0.1	0.8	-	-
	2	2	2	1	2	0.1	0.8	0.1	0.8
IISC	2	2	2	1	1	2.4	0.9	1.2	0.5
J&K	2	1	1	0	0	47.	1.5	-	-
NLC	2	3	3	5	5	0.1	0.3	0.2	0.5
	2	0	0	3	3	-	-	0.1	0.3
	2	2	2	2	2	0.0	0.2	0.0	0.2
	2	1	1	3	3	0.0	0.1	0.1	0.3
SCC	2	13	14	318	320	0.1	0.2	4.1	4.8
	2	10	11	313	319	0.1	0.1	4.0	4.8
	2	16	17	221	232	0.2	0.2	2.9	3.5
	2	8	8	184	184	0.1	0.1	2.3	2.8
TISC	2	0	0	2	2	0.0	0.0	0.1	0.2
	2	2	2	3	3	0.1	0.2	0.2	0.3
	2	1	1	5	5	0.0	0.1	0.4	0.6
	2	0	0	3	3	-	-	0.2	0.3
PIL	2	1	1	0	0	1.0	4.8	-	-
GIP	2	1	1	0	0	0.5	2.2	-	-
ICM	2	1	1	0	0	0.3	0.8	-	-
MIL	2	0	0	1	1	-	-	1.0	0.5
	2	0	0	2	2	-	-	2.1	1.0
JNL	2	0	0	1	1	-	-	2.3	1.3
	2	1	1	0	0	2.3	1.3	0.0	0.0
JPL	2	0	0	1	1	-	-	8.4	3.8
	2	0	0	1	1	-	-	8.4	3.8
SEM	2	1	1	1	1	NA	NA	NA	NA
ELC	2	3	3	1	2	80.	14.	53.	9.7
	2	1	1	0	0	26.	4.8	-	-
VSL	2	1	1	0	0	NA	7.6	-	-
JSPL	2	1	1	0	0	NA	25.	-	-
WB	2	1	1	0	0	3.5	4.4	-	-
BLM	2	1	1	0	0	1.4	1.7	-	-
	2	2	2	0	0	2.8	3.4	-	-
SAS	2	1	2	0	1	NA	NA	NA	NA
PRIS	2	1	1	0	1	NA	NA	NA	NA
SOV	2	1	1	0	0	NA	NA	-	-
	2	1	1	0	0	NA	NA	-	-

N.A. : Employment figures not available

Note : Serious injuries of fatal accidents are also considered in computation of number of serious injuries as well as rates for serious injury.

Figures updated as on 31.12.2015 and figures for the year 2014 & 2015 are provisional.

AGENDA ITEM NO -V

Analysis of major accidents that occurred during last 1 year and status of enquiry & Action Taken

1. **COAL INDIA LIMITED:** No major accident has occurred in the calendar year 2015 in the mines of CIL
2. **SINGARENI COLLIERIRS CO. LTD.:** There were no major accidents that occurred during last one year.
3. **NEYVELI LIGNITE CO. LTD.:** No major accident occurred in NLC so far.

AGENDA ITEM NO –VI

Risk Assessment & Safety Management Plan (SMP)

1. COAL INDIA LIMITED (CIL):

Risk assessment in a coal mine is an on-going / continuous process. Risk assessment has been done in all mines of CIL and Safety Management Plans (SMP)s have been prepared for all mines of CIL.

Major activities covered under SMPs:

- **For UG Mines**
 1. Strata Management
 2. Fire / Spontaneous Heating Management
 3. Water Danger Management
 4. UG Transport Operations
 5. Gas Monitoring
 6. Drilling & Blasting operation
 7. Coal Loading Operation
 8. Material Handling Operation
- **For OC Mines**
 1. HEMM Operations
 2. Transport Management
 3. OB Dump Management
 4. Drilling & Blasting Management
 5. Contractual Job Management
 6. Risks associated with use of electricity

Action taken so far:

- Training for preparation of Risk Assessment based SMP: Executives who have been trained by SIMTARS, Australia are engaged for imparting training and upgrading knowledge of mine level employees to identify the hazards and to evaluate the associated risks in the mines & to prepare the Risk assessment based Safety Management Plans (SMP).
- Implementation of SMP: Control measures proposed in the Risk assessment based Safety Management Plans (SMPs) are being implemented.
- Preparation and implementation of Safe Operating Practices (SOP) for different operations in mines.

2. SINGARENI COLLIERIES CO. LTD.:

a. No. of mines covered. b. Major activities completed & c. Action taken.

- Risk Assessment and Management Plan (RAMP) are prepared for all the mines.
- Monthly and quarterly meetings are being held by the concerned committee. The RAMP is being up dated accordingly on the recommendations of the committee.
- Near miss cases are analyzed thoroughly and suitable remedial measures are being taken by the concerned.
- Board has accorded approval for training in Risk Assessment based Safety Management Plan by SIMTARS, Australia and training will be started shortly.

3. NEYVELI LIGNITE CORPORATION LTD.:

Risk Assessment & Management: (i) No. of mines covered, (ii) Major activities completed, (iii) Action Taken

The Risk Assessment, Occupational Health and Safety Audit for NLC Mines were carried out in the year 2003, 2007 and 2012 by accredited External Agency. LOI issued for conducting Risk Assessment and Safety Audit during 2016.

(i) Number of Mines Covered.

The number of Mines covered for carrying out the Risk Assessment, Occupational Health and Safety Audit are Mine-I, Mine-II and Mine-IA

(ii) Major activities completed

- a) In respect of above study, a working document 'Safety Management Plan' had been brought out and distributed to the operation / Maintenance areas of NLC Mines and recommendations are implemented.
- b) A well laid Emergency Preparedness Plan / Pre Monsoon Action Plan is being prepared for every Mine every year to take care of any emergency situation.
- c) NLC has obtained certification for all the Mines as under and the stipulated norms in the certifications are being maintained.
 - Quality Management System ISO 9001: 2000.
 - Environment Management System ISO 14001: 2004.
 - Occupational Health and Safety Assessment Series – OSHAS 18001: 1999.

(iii) Action Taken

- a) Area wise responsibility with priority to Safety is being enforced at all Mine Operational / Maintenance Activities for ensuring specific site supervision.
- b) All-important operation / maintenance of the 'Specialized Mining Equipments' have formulated / modeled / Codified Safe Work Practices, approved by DGMS and the same is being followed in all spheres of activities.
- c) Daily / Regular / Periodical Maintenance check lists for the "Specialized Mining Equipments" had been prepared and enforced for strict compliance.
- d) Inter Unit Safety Assessments are being carried out for every quarter to assess safety standards maintained as per statute.
- e) Systematic in-depth Accident Analysis is being done and counseling of near miss / Serious Accident Victims is being done for accident prevention / to avert recurrence of accidents.
- f) Commitment on inculcating Safety Awareness by way of imparting adequate / need based training with new training modules to all employees and the Compulsory Training for all categories of employees, including the contract employees before their deployment in Shop Floor and in their assigned working areas. In addition to the above work related specific job training / refresher training are also being imparted to all categories of employees.
- g) Safety Status / Safety Performance of every activity is being monitored / reviewed under the statutory framework.
- h) Continuous monitoring of behavioral sense / attitude / commitment of employees towards Safety is being done.

AGENDA ITEM NO –VII

Requirement of Statutory Manpower and steps taken to fill up the shortage

1. COAL INDIA LIMITED (CIL):

Company-wise status of statutory manpower as on 01.01.2016-

Company	Category	Requirement	Available	Shortage
ECL	Overman	1132	961	171
	Mining sirdar	1514	895	619
	Surveyor	218	180	38
	Electrical Supervisor	356	82	284
BCCL	Overman	997	705	292
	Mining sirdar	986	515	471
	Surveyor	145	110	35
	Electrical Supervisor	568	393	175
CCL	Overman	686	520	166
	Mining sirdar	1001	583	418
	Surveyor	144	126	18
	Electrical Supervisor	391	240	151
NCL	Overman	484	291	193
	Mining sirdar	166	113	53
	Surveyor	50	45	5
	Electrical Supervisor	253	149	104
WCL	Overman	986	763	223
	Mining sirdar	1448	978	80
	Surveyor	191	159	7
	Electrical Supervisor	493	375	118
SECL	Overman	1502	1183	319
	Mining sirdar	2319	1939	380
	Surveyor	207	136	71
	Electrical Supervisor	1130	912	218
MCL	Overman	619	496	123
	Mining sirdar	575	339	236
	Surveyor	143	112	31
	Electrical Supervisor	375	179	196
NEC	Overman	64	24	40
	Mining sirdar	116	72	44
	Surveyor	8	8	0
	Electrical Supervisor	16	8	8

The subsidiary companies of CIL are recruiting statutory manpower from time to time as per their requirement.

2. THE SINGARENI COLLIERIES CO. LTD.:

Category	Requirement 2015-16	Existing Strength as on 31.12.2015	Variance (+ / -)
Asst. Manager (1 st Class)	375	387	+12
Asst. Manager (2 nd Class)	502	503+33*	+1
Overman	960	995	+35
Mining Sirdar	1378	1400	+22
Electrical Supervisors	338	391	+53
Mechanical Supervisors	349	310+55**	+16

* Internal Circular was issued for selection of 33 Mining Graduates.

** Recruitment of 55 is in process.

3. Neyveli Lignite Corporation Ltd.:

Requirement of statutory manpower and steps taken to fill up the shortage.

NLC operates only opencast Lignite Mines and hence there should be an amendment in CMR to sort out short fall in statutory personnel in particular under Overman and Sirdar categories.

However, the details of statutory personnel required as per DDMS, Chennai, availability and shortfall/Excess are detailed below:

Category	Requirement	Existing	Shortfall (-) / Excess (+)
Asst. Manager (1 st Class/ 2 nd Class)	130	139	(+) 9
Overman	235	53	(-) 182
Surveyor	21	13	(-) 8
Sirdar	235	-	(-) 235

Steps taken to fill up the shortages:

- i) NLC is regularly taking action for recruitment of Mining Engineers through campus interviews and also by press notifications. Due to continuous efforts, NLC is having now 139 Mining Engineers holding First Class and Second Class Certificate of Competency under CMR 1957 and there is no shortfall of Statutory Manpower.

Further NLC is regularly deputing the Graduate Mining Engineers to Underground Coal Mines of Coal India Limited for undergoing practical training and after obtaining the statutory certificates they are being authorised in Mines to discharge all statutory duties.

- ii) With reference to Overman, Press Notifications were issued in 2005, 2009, 2010 2012 and Press Notification is issued under Advt. No. 07/2014 for the recruitment and 156 Diploma Mining Engineers joined.

Presently, we have 53 Nos. of Overmen working in all the Mines of NLC. New recruited Diploma Mining Engineers will be send for Underground Training in Coal Mines to obtain the Overman's Certificate of Competency as required under statute.

- iii) In connection with the postings of Mining Sirdar, it was informed to DGMS that NLC is having highly mechanised Mines adopting continuous Mining System by deploying Specialised Mining Equipments of Bucket Wheel Excavators, series of Conveyors and Spreaders. NLC has posted a good number of Mechanical and Electrical Engineers possessing Diploma/Degree qualification and assigned the jobs to supervise the working areas of men and machines. Sirdars with Matriculation qualifications will not be able to perform and have effective control of the work of high sophisticated machineries. We have furnished certain details as sought by DGMS with a request to exempt NLC from the provisions of appointment of Mining Sirdars and the request of NLC is under examination of DGMS.

4. JINDAL POWER OPEN CAST COAL MINE

Category	Appointment made during the year 2013 -2014	Existing as on 31.03.2015	Requirement as on 31.03.2015	Shortage / Surplus as on 31.03.2015
Asst Manager (1 st Class)	01	7	7	00
Asst Manager (2 nd Class)	02	12	12	00
Overman	03	26	26	00
Mining Sirdar	09	21	21	00
Surveyor	01	04	04	00

5. TATA STEEL LIMITED, WEST BOKARO DIVISION

Category	Appt. made during 2014-15	Existing as on 31.12.2014	Requirement as on 31.12.2015	Existing strength As on 31.12.2015
Asst. Mgr. (1-st class)	00	09	05	12
Asst. Mgr. (2-nd class)	02	16	13	16
Over man	00	31	33	31
Mining Sirdar	04	36	35	35
Surveyor	00	02	02	03

AGENDA ITEM NO –VIII

Safety Budget and its utilisation

1. COAL INDIA LIMITED (CIL):

Status of capital budget for safety and its utilization in the F.Y. - 2014-15 & 2015-16 (up to 31.12.2015)

(Amount in Rs. Lakhs)

Company	Year : 2014-15		Year : 2015 -16	
	Safety Budget	Expenditure	Safety Budget	Expenditure
ECL	7975.00	4598.00	6628.00	3400.00
BCCL	2524.38	2034.65	2263.98	1575.74
CCL	1162.65	879.40	656.00	515.00
NCL	104.00	72.00	1198.00	1316.00
WCL	533.00	205.47	1200.00	1110.26
SECL	2000.00	105.00	2685.00	2416.00
MCL	961.44	826.83	715.32	678.10
NEC	72.59	45.79	135.10	44.21
CIL (Total)	15333.06	8767.14	15481.40	11055.31

2. THE SINGARENI COLLIERIES CO. LTD.:

Year	Capital A/c.		Revenue A/c.	
	Budget	Actual Expenditure	Budget	Actual Expenditure
2013-14	1478	531	74617	72472
2014-15	804	767.14	45703	74600
2015-16	1111	240.00*	--	45297*

* Figures upto Nov' 15.

- There is no dearth of funds on capital and revenue related safety issues.
- Required funds to the full extent are provided depending/basing on the requirement and reviewed periodically.

3. NEYVELI LIGNITE CORPORATION LTD.:

Separate Safety Budget Provisions are made available when Annual Plan is drawn up for Capital and Revenue Budget.

There is no financial constraint so far at NLC to meet out the requirements on 'Safety Related Activities'. The Safety Budget provision made and the actual expenditure incurred under Capital and Revenue budget are as detailed below:

Amount in Rs. Lakhs.

Year	Capital		Revenue	
	Budget	Actual Expenditure.	Budget	Actual Expenditure.
2012-'13	280.00	130.00	400.00	400.00
2013-'14	200.00	150.00	400.00	398.00
2014-15	181.25	About 70.00	500.00	500.00
2015-16 Upto December 2015	200.00	About 65.00	585.00	About 372.00

4. JINDAL POWER OPEN CAST COAL MINE

Year	Capital A/c		Revenue A/c	
	Budget (Rs)	Actual Expenditure(Rs)	Budget (Rs)	Actual Expenditure (Rs)
2012-13	11 lakh	11 Lakh	26 lakh	26 Lakh
2013-14	15 lakh	15 Lakh	37lakh	37Lakh
2014-15	15 lakh	15 lakh	85 lakh	85 Lakh

Note: Jindal Power Open Cast Coal Mine (Gare- Palma IV/2 & IV/3 sub block) is under custodianship of M/s South Eastern Coalfield Limited (Subsidiary of CIL) since mid-night of 31.03.15.

AGENDA ITEM NO –IX

Occupational health hazards and health risk

1. COAL INDIA LIMITED (CIL):

CIL has well-established Occupational Health Surveillance System for checkup of Occupational Diseases and conducting Initial Medical Examination (IME) & Periodical Medical Examination (PME) of its employees including contractor's workers.

Company-wise status of Organization & Infrastructure for Occupational Health Services in CIL is given below:

Company	PME Center	Doctors for PME	Para medical staffs for PME	X-Ray M/C	Spirometer	Audio meter	Pathology Lab.
ECL	14	14	14	17	12	14	18
BCCL	9	9	21	9	9	9	9
CCL	13	13	45	13	13	13	12
NCL	12	12	37	6	11	11	12
WCL	10	10	11	10	10	10	10
SECL	14	14	86	18	12	14	14
MCL	2	10	9	6	2	2	5
NEC	1	2	2	1	1	1	1
CIL	75	84	225	80	70	74	81

2. THE SINGARENI COLLIERIES COMPANY LTD. (SCCL):

- All PME Centers have been equipped with required medical appliances and personnel. Doctors, in charge of PME centers have been trained in occupational health. Due importance is given for detection of occupational diseases at early stages and all the workers are undergoing PME. Notified occupational diseases detected, if any, are being reported scrupulously.
- Occupational Diseases Board was constituted, regular meetings are held and its recommendations are followed/ implemented. All the doctors working in PME centers are trained in Occupational diseases.
- There are 09 PME centers. Comprehensive health cards for each workman integrating their working conditions with their health profile are being prepared.
- A study on occupational health management is conducted in SCCL by Ex-DMS (Medical) and report submitted thereupon was circulated among Area General Managers for implementation.

3. NEYVELI LIGNITE CORPORATION LTD.:

Occupational health hazards and health risk

- ✓ A well established Department of Industrial Hygiene and Occupational Diseases (DIHOD) is functioning effectively with highly qualified and experienced medical professional in OHS – System. The Occupational Health Services is established at NLC and functioning since the year

1982 under the control of highly qualified and experienced Medical Professionals in Industrial Safety.

- ✓ Both Initial and Periodical Medical Examination of Employees/Contract Workmen are conducted at the Industrial Medical Centre of NLC- GH as per the statute.
- ✓ Periodical Medical Examination for Miners (both Regular & Contract) is being conducted, as per the recommendations of Xth Conference on Safety.

Occupational Health at NLC

- ✓ The Periodical study is being conducted to identify and to detect notified Occupational diseases due to Occupational Health Hazards (Dust / Vibration /Noise etc.)
- ✓ As a measure of environmental study, dust, noise, illumination and vibration studies are conducted once in 6 months through Centre for Applied Research and Development of NLC and the results are well within the permissible limits.
- ✓ National Institute of Miners Health (NIMH), Nagpur, has conducted noise mapping, respirable dust survey and vibration test as a measure of environmental study in the year 2004, 2006, 2007 and 2015. The results observed are well within the permissible limits.
- ✓ In pursuance of protective and proactive operation, notified occupational diseases were not identified, so far, during Periodical Medical Examinations conducted.
- ✓ NLC has obtained the following certification for all the Mines and stipulated norms of certification are being maintained.
- ✓ Quality Managerial System (ISO 9001: 2000)
- ✓ Environment Management System (ISO 14001: 2004)
- ✓ Occupational Health and Safety Assessment Series (OHSAS 18001: 1999)

4. TATA STEEL LIMITED, WEST BOKARO DIVISION

1. PME (Periodical Medical Examination) -

Year	Target	Achieved
2013	697	827
2014	706	725
2015	636	641

2. First – Aid training for employees

Year	Achieved
2013	114
2014	109
2015	105

4. Health awareness training programmes organized and no. of employees trained -

Year	No. of programmes organized	No. of employees trained
2013	18	588
2014	16	512
2015	19	481

5. Notifiable diseases detected in employees during periodical medical examination from 2013 to 2015 → Nil.

AGENDA ITEM NO -X

Amendment proposal of Coal Mines Regulations-1957 & Mines Act, 1952

A. The Mines (Amendment) Bill – 2011

Major new insertion proposed	3 sections	18A, 74A, 76A
Amendment proposed	16 sections	Sec-1 (Long title), Section- 2 (definition), Sec-58, 63,64,65,66,67,68,69, 70,72A,72B, 72C, 73 & 76 (Penalties & procedure)

• Comparative study of the Mines (Amendment) Bill-2011 Vis-à-vis the Mines Act -1952 (major points)

As per the Mines Act-1952	Proposed in the Mines (Amendment) Bill – 2011
Sec- 2(l) “owner” when used, in relation to a mine, means any person who is the immediate proprietor or lessee 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 liquidator or receiver, such liquidator or receiver but does not include a person who merely receives a royalty rent or fine from the mine, subject to any lease grant or license for the 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 any part thereof shall be subject to this Act in like manner as if he were an owner, but not so as to exempt the owner from any liability;	2(l) “owner”, when used in relation to a mine, means a person or authority having ultimate control over the affairs of the mine: Provided that where the mine belongs to, — (i) a company incorporated in India, the Managing Director thereof, and if there is no Managing Director, all the whole-time directors of the Board of Directors of the company, as the case may be, shall be the owner; (ii) a foreign company, the Principal Officer by whatever name called, including its director and secretary, shall be the owner; (iii) a firm or other association of persons, all the individual partners or members thereof, shall be the owner:
New insertion	“74A. Where any person is prosecuted, or proceeded against, for contravening any of the provisions of this Act or of any rule, or regulation, or bye-law or order made thereunder, it shall be for the person who is alleged to have failed to comply with such duty or requirement, to prove that it was not reasonably practicable, or, as the case may be, all practicable measures, were taken, to satisfy the safety requirements, duty or other requirements, as the case may be.”.
New insertion	“76A. Nothing contained in this Act shall absolve any person from his liability under this Act, if such person had or has ultimate control over the affairs of the business of the mines.”
Penalties & procedures Penalties provisions under section 63,64,65,66,67,68,69, 70,72A,72B, 72C & 76	Penalties provisions under 63,64,65,66,67,68,69, 70, 72A,72B, 72C,73 & 76 have been increased <ul style="list-style-type: none"> • Monetary penalties increased by about 100 times. • Imprisonment up to 5 years in place of 2 years.

• Comparative study of the Draft Coal Mine Regulation- 2011 Vis-à-vis CMR-1957(major points only)

CMR-1957	Draft CMR- 2015
Total nos. of regulations - 204	Total nos. of regulations - 262

CMR-1957	Draft CMR- 2015						
<p>Reg-32 : Appointment of under managers or assistant managers.</p> <table border="1" data-bbox="254 353 683 707"> <thead> <tr> <th>Average output</th> <th>Nos.</th> </tr> </thead> <tbody> <tr> <td>Up to and including 10,000 tonnes</td> <td>One</td> </tr> <tr> <td>Above 10,000 tonnes.</td> <td>One additional under manager or assistant manager for every 5,000 tonnes output or part thereof in excess of 10,000 tonnes.</td> </tr> </tbody> </table>	Average output	Nos.	Up to and including 10,000 tonnes	One	Above 10,000 tonnes.	One additional under manager or assistant manager for every 5,000 tonnes output or part thereof in excess of 10,000 tonnes.	<p>31. Appointment of assistant manager. - In every mine, the manager shall be assisted by assistant managers on the scale as prescribed by the Board.</p> <p>Provided that in specific cases, the Chief Inspector may relax the requirement of the appointment of assistant managers.</p>
Average output	Nos.						
Up to and including 10,000 tonnes	One						
Above 10,000 tonnes.	One additional under manager or assistant manager for every 5,000 tonnes output or part thereof in excess of 10,000 tonnes.						
<p>New insertion</p>	<p>Reg. No. 38: Duties and responsibilities of owner</p> <p>Salient points The owner shall</p> <ol style="list-style-type: none"> 1. arrange for regular assessment of the risk and dealing with it; 2. take all necessary measures to eliminate or minimize the risks to safety and health; 3. ensure the monitoring, assessment and regular inspection of the working environment to identify the various hazards; 4. ensure adequate ventilation for all underground working 5. ensure that the machine is commissioned, operated, maintained and de-commissioned in safe manner. 6. ensure that, when there is serious danger to the safety and health of workers, operations are stopped and workers are evacuated to a safe location; 7. Prepare an emergency response plan specific to each mine for reasonably foreseeable industrial and natural disasters. 8. inform the workers, in a comprehensive manner, of the hazards associated with their work, the health risks involved and relevant preventive and protective measures; 						
<p>New insertion</p>	<p>39. General responsibilities of supplier, manufacturer and designer. -</p> <ol style="list-style-type: none"> 1. (a) ensure that the machinery, equipment or substances do not entail dangers for the safety and health; 2. (b) make available: <ul style="list-style-type: none"> • information for the correct installation, maintenance and use; • information concerning the hazards of machinery and equipment • information on how to eliminate or control risks arising from the identified hazards associated with the products. 						
<p>New insertion</p>	<p>Reg. No. 40: Responsibilities of contractor</p> <p>(1) A contractor deployed in a mine for any work shall-</p> <p>(a) establish effective ongoing communication and coordination between appropriate levels of supervisors, officials and senior officials of the mine prior to commencing work, which shall include provisions for identifying hazards and the measures to eliminate and control risks;</p> <p>(b) ensure arrangements for reporting work related injuries and diseases, ill health and incidents among the contractors' workers while performing work for the mine;</p> <p>(c) provide relevant workplace safety and health hazards awareness and training to their workers prior to commencing and as work progresses as necessary;</p>						

CMR-1957	Draft CMR- 2015
	(d) ensure compliance of the provisions of the Act and the rules and regulations framed there under.
Reg. 38 Duties of persons employed in mines Sub-reg – new insertion	Reg. No. 41: Duties of person employed in mines Sub reg. no. 3: Every person shall, immediately before proceeding to work and immediately after terminating work at the end of his shift, have his name recorded in the register maintained under section 48(4) of the Act: 4) Every person employed in a mine shall- (a) take reasonable care for their own safety and health and that of other persons; (b) report forthwith to an official, any situation which he believes could pose a risk to his safety or health (c) Co-operate with the employer.
New insertion	Reg. No.105 : Safety management plan
New insertion	Reg. No.107 : Mechanized opencast working
New insertion	Reg. No.108. Reclamation.
New insertion	Reg. No.109. Spoil-banks and dumps.
New insertion	Reg. No.110. Transport Rules
New insertion	Reg. No.111. Codes of Practice.
New insertion	Reg. No.124. Strata Control and Monitoring Plan (SCAMP).
New insertion	Reg. No.127. Provision of roof canopies or cabs.
New insertion	Reg. No. 132.Working at height.
New insertion	Reg. No. 171. Monitoring devices. (1) environmental monitoring devices to continuously record information regarding environmental conditions. (2) analysis of mine air samples by gas chromatography or other equivalent technique.
New insertion	Reg. No.195. Deep-hole blasting. – Conditions for conduct of deep hole blasting in a mine shall be specified by the Chief Inspector in a general order.
New insertion	Reg. No.217. Design, operation and maintenance of heavy earth moving machineries (HEMMs) including trucks, tippers and dumpers.

2. THE SINGARENI COLLIERIES COMPANY LTD. (SCCL):

After thorough deliberations in SCCL on the subject of draft Coal Mines Regulation Amendment (CMR-2011), comments/ objections of SCCL were forwarded for kind perusal and for incorporating the same in the final CMR-2011 vide Lr. No. CRP/C/001/12/173, dt.19.03.2012.

3. NEYVELI LIGNITE CORPORATION (NLC):

The views of NLC Limited on the Draft Coal Mine Regulation – 2006 and the comments for the proposed Amendment to the Mines Act 1952 have already been sent to Ministry of Coal vide Lr. No. D(M)/2007, dt:02-07-2007 and Lr. No. NLC/DIR(M)SAF/2008, dt:09-08-2008 respectively.

Agenda Item No. - 11

Any other point with permission of the Chair.

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