FOURTEENTH REPORT

STANDING COMMITTEE ON COAL AND STEEL (2014-2015)

(SIXTEENTH LOK SABHA)

MINISTRY OF COAL

SAFETY, HEALTH AND EDUCATION FACILITIES FOR INHABITANTS/WORKERS IN COAL/LIGNITE MINING AREAS

Presented to Lok Sabha on 12.08.2015 Laid in Rajya Sabha on 12.08.2015



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CONTENTS

Page

Composition of the Committee	(iii)
INTRODUCTION	(v)

REPORT

PART I

Chapter I	CHAPTER I Introductory 1						
Chapter II	Safety of Workers in Coal and Lignite Mines	4					
CHAPTER III Health Facilities for Inhabitants/Workers in Coal/ Lignite Mining Areas							
CHAPTER IV Education Facilities for Inhabitants/Workers in Coal/Lignite Mining Areas							
	PART II						
Observ	vations/Recommendations of the Committee	67					
	ANNEXURES						
I. Minutes of the Sitting of the Standing Committee on Coal and Steel (2014-15) held on 30.12.2014							
II. Minutes of the Sitting of the Standing Committee on Coal and Steel (2014-15) held on 14.07.2015							
III. Minutes of the Sitting of the Standing Committee on Coal and Steel (2014-15) held on 11.08.2015							

COMPOSITION OF THE STANDING COMMITTEE ON COAL AND STEEL (2014-15)

Shri Rakesh Singh* - Chairperson

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Rajya Sabha

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^{*}Shri Rakesh Singh appointed w.e.f. 27.11.2014 vice Shri Hansraj G. Ahir appointed Minister.

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- 25. Shri B.K Hariprasad
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[®]Shri Md. Nadimul Haque nominated *w.e.f.* 08.01.2015 *vice* Shri Srinjoy Bose. [#]Dr. Satyanarayan Jatiya nominated *w.e.f.* 25.09.2014 *vice* Shri Basawaraj Patil.

INTRODUCTION

I, the Chairman, Standing Committee on Coal and Steel having been authorized by the Committee to present the Report on their behalf, present this Fourteenth Report (Sixteenth Lok Sabha) on the subject "Safety, Health and Education Facilities for Inhabitants/Workers in Coal/Lignite Mining Areas" relating to the Ministry of Coal.

2. The Standing Committee on Coal and Steel (2014-15) had selected the subject for detailed examination and report to the Parliament. The Committee were briefed by the representatives of the Ministry of Coal and Coal/Lignite PSUs on 30.12.2014 and took oral evidence on 14.07.2015. Based on the oral and written testimony submitted to the Committee, a report on the subject was prepared.

3. The Committee wish to express their thanks to the officials of the Ministry of Coal and Coal/Lignite PSUs for placing before them and in furnishing material/information from time to time as desired by the Committee.

4. The Committee considered and adopted the Report at their sitting held on 11.08.2015.

5. The Committee place on record their profound appreciation for the valuable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

6. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in Part-II of the Report.

New Delhi; <u>11 August, 2015</u> <u>20 Shravana, 1937 (Saka)</u> RAKESH SINGH, Chairperson, Standing Committee on Coal and Steel.

REPORT

PART I

CHAPTER I

INTRODUCTORY

The issue of Safety. Health and Education facilities for inhabitants/ workers in Coal/Lignite Mining areas assumes significance due to the large number of workers/inhabitants in mining areas. Statedly nearly 3,70,000 workers are deployed in coal mines. And presently, coal meets 52% of primary commercial energy requirement in India against 29% the world over. Needless to say that maintenance of safety standards in Coal/Lignite Mines are crucial not only for the safety of work force but it also affects the economies of the company. It is, therefore, imperative that continuous and sustained efforts are made to ensure optimum safety standards and zero tolerance for fatal accidents in these Mines. It is equally important to have a robust and effective safety monitoring mechanism for prevention of accidents and preparedness to handle any eventualities. Besides, periodic and systematic safety audits by Accredited External Agencies with mandatory follow up on findings thereof are essential. Safety and Health of workers deployed in Coal/Lignite Mines therefore need to be accorded utmost priority. Thus, in this context, a holistic review of the present system of safety monitoring mechanism through a revisit of the fundamental provisions made in various statutes pertaining to the issue is paramount. Besides adopting and instilling more scientific and good practices of mines safety as well as globally established techniques such as Workplace Risk Assessment and Control (WRAC) would undoubtedly help in achieving the target set for zero tolerance for fatal accidents in Mines. Also, issues pertaining to health and education facilities for inhabitants/ workers in coal/lignite mining areas are equally important.

1.2 The extant statutory framework governing safety in coal mines include the Mines Act-1952 and Rules, Regulations & Bye-laws; Electricity Act-2003 and Rules, Regulations & Bye-laws; Explosive Act-1884 & Explosive Rules-2008; Employee Compensation Act-2009, Factories Act-1948 (Chapter-3 & 4) and Indian Boiler Act-1923 & Rules. The Monitoring Authority for safety in mines include External Agency under Ministry of Labour and Environment (MoL&E) viz: Chief Inspector of Mines (DGMS); Regional Inspector of Mines (DDG); Inspector of Mines (DMS & DDMS); External Agency under MoC; Minutes of Standing Committee on Safety in Coal Mines; Internal Agency: Coal India Limited Safety Board; Subsidiary Company Tri-partite Safety Committee; Area Tri-partite Safety Committee; Safety Committee; and Workman Inspector (Mining/ Mechanical/Electrical).

1.3 The Committee during their sittings held on 30.12.2014 and 14.7.2015 examined the above issues in detail. While the representatives of the Ministry of Coal and Coal PSUs briefed the Committee on the subject on 30.12.2014, the oral evidence on the subject was taken by the Committee on 14.7.2015. The Ministry of Coal briefed the Committee on the extant provisions on 'Safety, Health and Education Facilities for Inhabitants/Workers in Coal/Lignite Mining Areas' highlighting the major policy initiatives taken up by the Ministry. Subsequently, in separate visual presentations, the representatives of the Coal PSUs viz., Coal India Ltd.(CIL), Singareni Collieries Company Ltd. (SCCL) and Neyveli Lignite Corporation (NLC) highlighted the status of safety, health and education facilities for inhabitants/workers in coal/lignite mining areas under their jurisdiction. The Committee were apprised about the major statutes governing mine safety; monitoring mechanism of safety status; trend of accident statistics; safety provisions and initiatives taken to improve safety in Mines, effectiveness of Work Place Risk Assessment and Control (WRAC); formulation of Safety Management Plan (SMP) and review thereof; trend of accident statistics; Implementation of the Master Plan for Jharia and Raniganj Coalfields being monitored by High Powered Central Committee (HPCC) headed by Secretary (Coal). The representatives also briefed the Committee on the existing health and educational facilities for inhabitants/workers in Coal/Lignite Mining areas under their corresponding jurisdictions.

1.4 The Committee had also raised gueries and sought clarifications from the representatives on various issues viz. identification of major hazards in mining operations and associated risks; average life span of workers deployed in coal mines; feasibility of provision of having own hospitals instead of referrals to other hospitals; provision of protective equipments and improvement of working conditions in Coal mines at par with international standards; training facilities for workers; effectiveness of the extant safety policy and monitoring of its implementation by the Internal Safety Organisation; efficacy of the ISOs in terms of adequacy of staff and techniques/technology; follow up on reports made by ISOs; roadmap towards achievement of zero tolerance of fatality rate of accidents in Coal mines, current status of phasing out of manual loading as per the recommendations of the 10th National Safety conference; time-frame for mechanized roof support for coverage of all existing underground mines; zero tolerance to fatal accidents in Coal Mines; Evaluation of Hospitals under CIL; Need for Super-Specialty Hospitals; Trained personnel for handling aspect of safety in proportion to total work force of nearly 3,70,000 workers statedly deputed in Coal Mines; Control of Air and Water Pollution vis-à-vis Health issues; Need for surprise visits to check upon safety and health of workers: etc.

1.5 The detailed examination of the above issues by the Committee on the basis of written and oral information/testimony furnished by the representatives of the Ministry of Coal and Coal PSUs are highlighted in the succeeding chapters.

CHAPTER II

SAFETY OF WORKERS IN COAL AND LIGNITE MINES

According to the Ministry of Coal, safety in coal mines has always been given the highest priority in CIL. It is considered as a part of core production process. The Directorate General Mine Safety (DGMS) is vested with the responsibility to ensure the compliance of provisions under the Mines Act, 1952 and Rules & Regulations made thereunder for improvement in safety of mining operation. In addition, there exists a Standing Committee on Safety in Coal Mines under the Chairmanship of Minister of Coal with the members of Coal Companies, DGMS, Ministry of Labour and Employment and Trade Unions. Coal companies have formulated a well defined Safety Policy and established a multidisciplinary Internal Safety Organization (ISO) to monitor the implementation of safety policy of CIL. Apart from complying the statutory provisions, CIL has taken several measures for prevention of mine accident. The various safety mechanisms and initiatives are detailed as under:—

Safety Monitoring Mechanism at different levels in CIL:

2.2 The Ministry in their Background Note on the subject highlighted their extant safety monitoring mechanism as follows:-

At Mine level	Workman inspectors: as per Mines Rule, 1955 Pit Safety Committee: constituted as per Mines Rule, 1955.
At Area level	Bipartite/Tripartite Committee Meeting Safety Officers' Coordination Meeting.
Level At Subsidiary HQ	Bipartite/Tripartite Committee Meeting Area Safety Officers' Coordination Meeting Inspections by ISO Officials.
At CIL HQ Level	CIL Safety Board CMD's meet Director (Tech.)'s Coordination Meeting National Dust Prevention Committee Meeting Inspections.
At Ministerial/National	Standing Committee on Safety in Coal Mines.
Level	National Conference on Safety in mines.
	Various Parliamentary Standing Committees (such as Standing Committee on Coal, Comptroller and Auditor General (CAG) under CSR Audit Report).

2.3 As regards continuous and sustained improvement in CIL's safety performance, the Committee were apprised as under:-

"THE 5-YEARLY AVERAGE FATALITIES SINCE THE INCEPTION OF CIL IN THE YEAR 1975 SHOWS A CONSISTENT REDUCING TREND OVER A PERIOD OF TIME AS IS EVIDENT FROM THE GRAPH GIVEN BELOW:



Note: Accident Statistics are maintained calendar year-wise in conformity with DGMS and figures for the year 2013 are subject to reconciliation with DGMS.

The 5-yearly average fatalities for the period 2010-13 have reduced by 66% in comparison to average fatalities for the time period 1975-79."

2.4 According to Ministry of Coal the 5-yearly average of serious injuries in CIL since its inception in the year 1975 upto the year 2013 have also shown a consistent reducing trend over period of time as is evident from the graph below:—



Note: Accident Statistics are maintained calendar year-wise in conformity with DGMS and figures for the year 2013 are subject to reconciliation with DGMS.

THE 5-YEARLY AVERAGE SERIOUS INJURIES HAVE REDUCED MORE SHARPLY THAN FATALITIES IN THE SAME TIME-FRAME. AS FIGURES OF SERIOUS INJURIES ARE THE PRECURSOR OF FATAL ACCIDENTS AND MINE DISASTER, IT IS A REALISTIC INDICATOR OF IMPROVEMENT IN SAFETY STANDARDS OF OUR MINES. 2.5 Analysis of Trend of Accident Statistics of CIL for the last 5 years is as under:—



(a) Fatalities in CIL for the last 5 years

Note: Accident Statistics are maintained calendar year-wise in conformity with DGMS and figures for the year 2013 are subject to reconciliation with DGMS.



(b) Serious injuries in CIL for the last 5 years

Note: Accident Statistics are maintained calendar year-wise in conformity with DGMS and figures for the year 2013 are subject to reconciliation with DGMS.

Company	Fata	lities	Serious	Injuries
_	2013	2014	2013	2014
ECL	6	6	48	46
BCCL	5	5	14	13
CCL	7	3	6	2
NCL	4	3	10	7
WCL	5	8	34	27
SECL	7	9	24	20
MCL	1	0	7	8
NEC	0	0	0	0
CIL	35	34	143	123

2.6 Asked about the Company-wise Accident Statistics for the year 2014 upto August compared to same period during the year 2013, the Committee were apprised as under:—

2.7 Company-wise status of Organization and Infrastructure:-

As	on	01.	.09	.201	4

Company	PME* Center	Doctors for PME	Para medical staffs for PME	X-Ray M/C	Spirometer	Audio meter	Patho- logy 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	24	11	10	0	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	98	225	80	60	74	81

*Periodic Medical Examination.

2.8 When enquired about the steps taken for improvement in Safety in Mines; the Ministry of Coal apprised the Committee in a written reply as under:—

"Apart from complying the statutory provisions as laid down in the Mines Act, 1952 and the Coal Mine Regulations, Mine Rule and byelaws framed thereunder, CIL has taken several measures to avoid re-occurrence of such accidents and protection of the employees/ workers. These are as under:-

- Continuous review of safety status of mines is being done through the multi-disciplinary Internal Safety Organization (ISO).
- After analysis of fatal accidents, several directives / guidelines on corrective measures to be taken for prevention of recurrence of similar type of accident in future are being issued from the Safety and Rescue Division of CIL.
- Stress on preparation and implementation of Risk Assessment based Safety Management Plan (SMP) for every mine.
- A protocol for conducting safety audit by external independent agencies has been prepared to bring uniformity and efficiency in mine safety audit.

For improving safety in mining operation: The following steps have been taken/are being taken to improve safety standard in mines.

- 1. Stress on introduction of Mass Production Technology in UG mines.
- 2. More number of surface miner are being introduced to eliminate blasting operation in opencast mines to make mining operation more eco-friendly.
- 3. Introduction of High Wall mining wherever possible.
- 4. Deployment of high capacity HEMMs to reduce traffic density.
- 5. Mechanization of drilling (for bolting) is being adopted in all UG mines.
- 6. Phasing out of manual loading as per the recommendations of 10th National Safety Conference.
- 7. Man Riding Systems (MRSs) are being installed in all underground mines having long haul/arduous travel.
- 8. Operator Independent Truck Dispatch System (OITDS) is being used in large OCPs."

2.9 According to Ministry of Coal, some other steps specific to certain areas of operation are as under:—

"(i) Steps taken for better Strata Management:

Roof & Side fall is still one of the major causes of fatal accident and fatality in underground mines. Steps taken for better strata control monitoring are as follows:—

- Detailed site-specific geological and geo-technical characterization is done using standard strata classification system such as Rock Mass Rating (RMR).
- Design of strata support and reinforcement systems based on RMR.
- Strata control cells have been established in all subsidiaries.
- Use of more number of mechanised roof drilling machines.
- Switching over to use of resin capsules from cement capsules in phased manner.
- Initiatives have been taken to develop device with appropriate audio-visual alarm to monitor the behaviour of overlying roof strata.
- Several roof-monitoring devices have been developed at Area/Mine level workshops.
- Subsidence monitoring and control.
- (ii) Steps being taken to prevent spontaneous heating, fire and explosion in mine:
 - Expedite construction of sectionalization stoppings.
 - Fresh Pressure Quantity (FPQ) Survey for checking efficacy of ventilation.
 - Procurement and installation of more number of Gas Chromatographs.
 - Use of Local Methane Detector (LMD) for early and accurate detection of methane.
- (iii) Mine Safety Inspections: The following inspections are being made in each mine to ensure that all mining operations are carried out in the mine as per the provisions of the relevant statute and safety norms:
 - Round the clock supervision of all mining operations by adequate number of competent and statutory supervisors and officers.

- Daily mine inspections are done by mine officials of each mine.
- Periodic mine inspections by senior area level official.
- Surprise back shift mine inspections by mine and area level officials.
- Twice every week Inspection by Workmen Inspectors appointed in each mine.
- Monthly mine inspection and meeting of Safety Committee Members of each mine.
- Regular mine inspections by officials of Internal Safety Organization.
- Periodic mine inspections by High Powered Task Force, Area and Subsidiary level Tri-partite Safety Committee members, etc.
- (iv) Safety R&D initiatives at CIL (HQ) level:
 - Construction of quick setting stopping by using expansion foam agent to isolate fire.
 - Development of notch cutting machine to facilitate construction of stopping in UG.
 - Eliminating the possibility of ignition of gas and incidences of explosion in UG mines due to electric fault by application of innovative technology of fault diversion.
 - Studies on determination of free Silica (Alfa-content) in respirable air borne dust in coal mines and preparation of data bank of free Silica and other minerals present in dust as well as in coal.
- (v) Special safety drive for accident prevention in OCPs:
 - Formulation of Mine-specific Traffic Rule.
 - Code of Practices for HEMM operators, Maintenance staffs, and others.
 - Preparation and implementation of Risk Assessment based Safety Management Plan (SMP).
 - Training of Contractor's Workers involved in contractual jobs.
 - Introduction of Safe Operating Procedures (SOPs) for safe mining operations.
 - Procurement of advanced surveying/slope monitoring devices.

(vi) Emergency Response Systems:

- Emergency Action Plans of each mine is being reviewed from time to time.
- Mock Rehearsals for examining the preparedness/efficacy of Mine-wise Emergency Action Plan.
- Demarcating Escape Routes: An exercise for demarcating Escape Routes in UG mines, on plans as well as below ground by fluorescent paint, display of the same at the entrance of the mine has been done.
- A Check list for dealing with emergency has been prepared and uploaded in website.

(vii) Safety Awareness Programme:

- Special Safety Drives is conducted periodically to assess the level of compliance of safety norms in each mine.
- Annual safety fortnight is also conducted once in every year for the same purpose.
- Constant safety awareness programmes are conducted in every mine for increasing safety awareness amongst grass root level workmen for ensuring compliance of safety norms. This is done with the help of:—
 - Safety talks & oath at the beginning of the shift,
 - Posters & Pictorial hoardings,
 - Circulation of code of safe practices for every operation and activity to all concerned,
 - Display of animation films and VT module films in VT during special and refresher trainings,
 - Monthly PSC meetings in all the mines."

2.10 The Committee were informed about the new initiatives taken for adoption of system approach for overall improvement of safety standards, which are as under:—

- "For initiating Risk Management by adoption of the globally established technique of WRAC (Work place Risk Assessment and Control) which proactively complies with provisions of upcoming CMR, 2011.
- By adoption of Risk Assessment based Safety Management in all mines of CIL following potential benefits have emerged:
 - a. Uniform system of documentation of all mining operation activities in step-wise method and identification of hazards

and risks thereof (in the step itself) along with controls (safety precautions) in each step makes it the first of its kind document for all mines of Coal India Limited.

- b. As WRAC involves the very persons who perform the activity, it fosters team spirit and participativeness of entire work force in Risk Management.
- c. This method facilitates Risk management and thus improves the standard of safety in all operations/ technology/processes.
- d. It also enhancing awareness and informal training to participating work groups.
- e. It shall enhance safety in our work practices to the global standards and will further boost the image of the company.
- In the existing system of safety management, the safety had practically been an issue of statutory certificate holders, WIs, PSC members, Managers, Agents and Owner. The Risk management by WRAC covers entire work force over a time and many of the valuable suggestions from the work persons are incorporated, documented and practised. The safety gets ingrained with activity of all the departments involved with mining operations.
- Preparation of SMP demonstrating use of WRAC as Risk Management tool for various operations, its subsequent review and monitoring makes it an auditable comprehensive document."

Year	Categ	ory of ac	cident	Total	Total	Lignite
	R/M	S	F	accident in NLC Mines	mandays worked	Production (Lakh Tonnes)
1	2	3	4	5	6	7
2003-04	4	7	2	13	3479040	205.57
2004-05	10	3	2	15	3687801	215.67
2005-06	4	7	1	12	3901223	204.35

2.11 As regards accident Details for NLC Mines during the last ten years, the Committee were informed as under:—

1	2	3	4	5	6	7
2006-07	6	6	6	18	4096214	210.14
2007-08	5	3	1	9	4323901	215.86
2008-09	4	2	3	9	4269395	213.07
2009-10	4	10	3	17	4395667	223.38
2010-11	1	2	3	6	4244396	231.44
2011-12	-	6	1	7	4533078	245.90
2012-13	1	4	4	9	4208682	262.23
2013-14	-	4	1	5	4236892	266.09
2014-15 (upto Aug.)	-	-	1	1	1849201	99.60

R/M - Reportable Minor S - Serious F - Fatal

Note: In NLC Mines, accidents have taken place mainly due to individual's fault. No accidents have occurred either due to system failure or unsafe condition of the Mines or machinery.

Steps taken to avoid accidents in Lignite Mines

Neyveli Lignite Corporation Limited (NLC) has been engaged in mining of Lignite and generation of power using lignite in its pit-head power stations for more than five decades.

In NLC, highly sophisticated mining machineries are deployed for its continuous lignite mining and allied activities. Asked about the Steps taken to avoid accidents in Lignite Mines, the Committee were informed of the following systems which are being currently used to ensure safety in mining equipment:—

- a. Fail safe system.
- b. Emergency switch with pull cord system.
- c. Limit switches.
- d. Interlock and de-interlock devices.
- e. Overload relay system for automated coordination/operation/ tripping of the system in case of wrong handling/faultyoperation etc.
- f. 'Eldro' breaking system etc.

In addition to above safety provisions, in order to maintain safety of workers working in mines the following steps/safety measures are also taken:

- (i) All the required Personal Protective Equipments are issued specific to the job requirement to the employees/contract workers before taking up the work.
- (ii) Systematic in-depth Accident Analysis is being done for accident prevention/to avert recurrence of accidents.
- (iii) NLC adopts Accident counselling system to ensure that serious/ Reportable/Near miss accident victims are given appropriate counselling as a recurrence avoidance and behavioural transformation.
- (iv) Area-wise responsibility with priority to safety is being enforced at all Mine Operational/Maintenance activities for ensuring specific site supervision.
- (v) Code of practices for different operations like Specialized Mining Equipment Operations, Ancillary Equipment Operations. Traffic Rules, General Precautions are formulated and exhibited at appropriate locations, for the benefit of the employees.
- (vi) Inter-Unit Safety Assessments are being carried out for every quarter to assess safety standards maintained as per statute.
- (vii) Risk Assessment and Safety Audit for Mines are being carried out by Accredited External Agencies once in two years.
- (viii) Commitment on inculcating safety awareness by way of imparting adequate/need based training with new training modules to employees and compulsory training for all categories of employees, including the contract employees before their deployment in shop floor and in their assigned working areas.
 - (ix) On the job training is being imparted to inculcate safety awareness especially among the contract workers to adopt safe work practices.
 - (x) Continuous monitoring of behavioural sense/attitude/ commitment of Employees towards Safety.

SAFETY STATISTICS IN SCCL:

2.12 The Ministry of Coal in a note forwarded to the Committee have furnished the following statistics regarding safety in coal mines:

"(a) Safety Statistics during the year 2014 upto 31st August in SCCL are as under:

Fatal	Fatalities	Serious	Serious	Fatalit	y Rate	Serious I	njury Rate
Accidents		Accidents	Injuries	Per MT	Per 3 lakh manshifts	Per MT	Per 3 lakh manshifts
5	6	190	191	0.18	0.19	5.68	6.02

Note: Figures are subject to reconciliation with DGMS.

(b) Fatal Accidents, fatalities, Serious Accidents and Serious Injuries during 2010 to 2014 (upto 31st August, 2014) in SCCL:

Year	Fatal Accidents	Fatalities	Serious Accidents	Serious Injuries
2010	10	12	302	312
2011	8	8	319	320
2012	11	12	339	341
2013	11	12	364	369
2014 (Upto Aug.)	5	6	190	191

(c) The rate of fatality and serious injury during 2010 to 2014 (upto Aug.) in SCCL:

Year	Fatal rate per MT.	Fatality rate per 3 lakh manshifts	Serious injuries per MT.	Serious Injuries per 3 lakh manshifts
2010	0.24	0.21	6.21	5.57
2011	0.16	0.16	6.37	6.28
2012	0.22	0.22	6.30	6.22
2013	0.24	0.24	7.38	7.43
2014 (Upto Aug.)	0.18	0.19	5.68	6.02

2.13 Asked about the Measures Taken to improve the Safety Status in SCCL Mines, the Committee were informed of the following safety measures are being taken up by SCCL management:

- "(i) In SCCL, with the aim of reducing accidents due to roof and side falls, gradual phasing out of Hand Section is taken up so that density of workmen in dangerous areas is minimized. In place of Hand Section, SDL and LHD are introduced.
- (ii) To monitor strata control activity, each region is provided with a strata monitoring cell.
- (iii) The services of scientific institutions like, CIMFR, NIRM etc., are being utilized for designing of panels and effective strata management system.
- (iv) Based on the Severity Index during the year 2013 the accident prone mines were identified for the year 2014, and the concerned Mine Managers and Agents were advised to critically analyze all the accidents to identify the most common causes and prepare Action Plan to reduce accidents.
- (v) All managers were advised not to start Depillaring Panels before obtaining Safety Clearance Certificate and also DGMS Permissions conditions are to be followed without any deviations. If any operations are to be conducted by deviating from Permission conditions, modification shall be obtained from the Inspectorate before such operation.
- (vi) All Regional General Managers (Safety) were requested to advise the concerned to discuss the remedial measures against unsafe conditions and practices in the mines as pointed out by Work Man Inspector (WMI) in the Pit Safety Committee meetings and to see that the Pit Safety Committees function, in true spirit to enhance the safety.
- (vii) All area CGM/GMs were requested to arrange inspection of Surveyed-off equipment like SDL/LHD etc. which are required to be deployed for operations by the Area Level Committee consisting SO to GM, ASO, Area (E&M) Engineer and OEM Service Engineer according to the guidelines given in DGMS (Tech.) Circular No. 1 of 2009 and issue Safety Clearance Certificate before their deployment in underground mines.
- (viii) Monsoon Audit inspections were done in all the mines by Committees constituted for the purpose.
- (ix) The findings and recommendations of enquiries in connection with every fatal accident due to fall of roof, hit by SDL bucket, shot firing accident were communicated to all area

CGM/GMs, Regional GM(S)s , ASOs, Agents, and Managers for propagation and awareness amongst workmen and for preventive action.

- (x) All Mine Managers were advised to organize Monthly and Quarterly Risk Management Committee meetings for the year 2014-15.
- (xi) Mine Managers were advised to make night shift inspections at least once in every fortnight as required by the statute to improve the safety and discipline in the mine.
- (xii) All Area CGM/GMs were requested to advise the Mine Managers to follow the precautionary measures and directives issued from the Directorate on 'danger of inundation' from surface water and underground sources.
- (xiii) ISO recommendations on Roof Fall incidents were circulated to all Mine Managers.
- (xiv) All Project Officers/Agents were advised to comply clause 1.8.1 of Recommendations of 11th Conference on Safety (Employer's Responsibilities in Contractor Works).
- (xv) All Area CGM/GMs were advised to formulate Area Level teams consisting Area Safety Officer, Area Engineer and Area Survey Officer, for review and monitoring of Safety Management Plans of the mines.
- (xvi) All Area E&M Engineers were advised to make thorough inspections to ensure proper maintenance of all the safety devices incorporated in the existing 'Man Riding Rail Car Systems' and to monitor and supervise to ensure safety of the equipment and men travelling in it.
- (xvii) As opined by Dy. DGMS, all Agents were advised that all the applications which are being made for getting Permissions/ exemptions and modifications from DGMS under CMR, 1957 shall be scrutinized by the Area Safety Officer and approved by GM(S) of the Region concerned before submitting to DGMS authorities."

Monitoring Mechanism

2.14 On being asked as to whether the provisions of safety contained in these statutes which were apparently framed way back in the 1950s were still relevant to accommodate the modern day challenges, the Ministry of Coal informed the Committee in a written reply as under:-

"The provisions made under the Mines Act, 1952, the Mines Rules— 1955, the Coal Mine Regulations—1957 and the Bye-laws and Standing Order framed thereunder are still relevant to ensure safety of mines and safety and health of work persons. The existing safety statutes for coal mining were framed when underground manual mining or semi-mechanized mining was widely adopted. Since then, several advancements in various fields of mining have evolved viz.,

- (i) Fully mechanized mines with continuous miners for both underground and open cast mines.
- (ii) The majority of coal production has shifted from underground mines to opencast mines.
- (iii) Use of Heavy Earth Moving Machinery (HEMM) in coal mines with high productivity and less manpower.
- (iv) Blasting has evolved from the old system of gun powder and safety fuse to the present day SME and electronic detonators.
- (v) Impact of large scale opencast mining on the environment and the related safety issues for workers/inhabitants.
- (vi) Engagement of contractual worker in coal winning and overburden removal etc.
- (vii) Implementations of safety and welfare in contract workers system.
- (viii) The safety and health of inhabitants of coal mining areas."

2.15 The Ministry of Coal further stated that even though these safety statutes are being amended or supplemented from time to time through updated DGMS technical circulars and recommendation of Safety conferences, still there is a need to have a holistic review of the existing safety statutes to accommodate the modern day challenges of the coal mining industry. With a view to address modern day challenges, MoLE has proposed to amend the provisions of Mines Act, 1952 and now Coal Mine Regulations-2015.

2.16 On being asked as to whether any holistic review had been done on the fundamental provisions made in these governing statutes pertaining to safety aspects, the Ministry of Coal stated that though, several amendments have been made in the statutes from time to time to meet the modern day challenges, no holistic review have been done on the fundamental provisions made in the statutes in the past. The need for a holistic review of the fundamental provisions of the governing safety statutes were felt and a draft "The Mines Act (Amendment) Bill -2011" and proposed new "Coal Mines Regulations—2015" has been prepared by Ministry of Labour and Employment after deliberations with all the stakeholders and has been published in the Gazette of India. 2.17 On a pointed query as to what was the hierarchy of all these monitoring mechanisms, the Ministy of Coal have informed the Committee as under:—

"Apart from Statutory Monitoring by DGMS, the status of safety is being monitored at different levels by various safety Committees. The hierarchy of these safety monitoring mechanisms is as under:

At Mine level:

- (i) Workman Inspector (Mining/Mechanical/Electrical) (Appointed as per Rule-29Q of the Mines Rules-1955).
- (ii) Safety Committee in each mine (as per Rule-29T of the Mines Rules-1955).

At Area level:

(iii) Area Tripartite Safety Committee (Management, DGMS and Trade unions).

At Subsidiary level:

(iv) Subsidiary company level Tripartite Safety Committee (Management, DGMS and Trade Unions).

At Company level:

(v) CIL Safety Board (Management, DGMS and Trade Unions).

At Ministry level:

- (vi) National Conference on Safety in mines conducted by Ministry of Labour and Employment.
- (vii) Standing Committee on Safety in Coal Mines (MoC, Management, DGMS and Trade Unions).
- (viii) Standing Committee on Coal and Steel."

2.18 On being asked to state whether there exists a functional connect amongst these various Bodies at any horizontal or vertical level, the Ministry of Coal stated that there exists a functional connect amongst various bodies at horizontal/vertical level, the details of which are as under:—

- "(i) The mine level safety bodies like Zonal Safety Committees and Pit Safety Committees interact with each other.
- (ii) The findings of workmen Inspectors during inspection are discussed in the Safety Committee meetings.

- (iii) The recommendations made during periodic safety audit and inspections by the corporate level ISO team are discussed during safety committee meetings.
- (iv) The activities of the various mine level safety bodies are evaluated during the coordination meetings.
- (v) The activities of the various mine level safety bodies are evaluated during the bipartite/tripartite meetings at corporate level and the recommendations made in the meetings are communicated to mine level safety bodies for further implementation.

These Safety Monitoring Bodies are working independently in their respective domains. However, un-resolved issues at the lower levels are taken up in the higher level for compliance. There exists free horizontal and vertical communication between the various safety monitoring bodies."

2.19 On being asked as to how the reports given by safety monitoring Bodies were implemented, the Ministry of Coal stated that the safety monitoring reports of these bodies are circulated as the minutes of meetings to all concerned for compliance. Thereupon, action taken report/compliance reports are required to be submitted.

2.20 On further being asked as to whether there are timelines stipulated for speedy and effective implementation and adequate follow up on the observations/recommendations made by these Bodies, the Ministry of Coal stated that depending on nature of issues, timelines are stipulated for speedy and effective implementation. In case of rectifications which are likely to take time, permission was sought to rectify within a reasonable time. The action taken reports/compliance reports are submitted to DGMS and ISO at corporate level by the concerned mine authority within stipulated time. Status of the implementation of the violations/rectifications pointed out by various Safety monitoring bodies is reviewed in the next meeting for acceptance of the compliance. Violations/recommendations pointed out by various safety governing bodies are followed up on a regular basis through safety organizational structure of the Company.

2.21 On a pointed query as to how the concerns of the workers, both regular and contract on aspect of their safety addressed by these safety monitoring Boards, it was stated that the concerns of the workers, both regular and contract, on aspect of their safety are addressed/ brought to the notice of the mine management by the worker directly or first line supervisor, Workmen Inspectors, members of the pit safety committee or through worker representatives (Trade Union) in various safety monitoring bodies, for their timely redressal. 2.22 On being asked as to whether there was need to review the present system of safety monitoring mechanism, it was stated that the present system of safety monitoring mechanism is functioning satisfactorily. But in view of technical changes and modern day challenges, a holistic review will be advisable.

Safety Management Plan

2.23 The Committee were apprised that one of the main functions of safety Committee was to prepare, review and implement Safety Management Plan. In this context, the Ministry was asked to state how often are these safety Management Plan prepared by each subsidiaries of CIL, SCCL and NLC and to state its periodicity and the level in the hierarchy where such safety Management plan are approved. In reply thereon, it was stated that the safety management plan were prepared at Unit level, reviewed by the Internal Safety Organisation (ISO) at corporate level and subsequently approved by DGMS. This was reviewed periodically at company level to incorporate the additional requirements/ changed conditions. The periodicity of review of the Safety management plans is as under:—

Sl.No.	Periodicity	Level
1.	Monthly	Safety Committee at Mine Level
2.	Quarterly	Area level
3.	Half-yearly	Subsidiary level
4.	Annually	Company level

As per regulation No. 105 (7) of the proposed Coal Mine Regulations-2015, Safety Management Plan (SMP) has to be submitted to the Regional Inspector of Mines for approval.

2.24 On being asked as to how it was ensured that the Safety Management Plan incorporate the practical safety need requirement at the ground level especially for workers deputed in underground coal mines, the Ministry of Coal stated that Risk Assessment based SMP is prepared for each mine by a team comprising of employees of different disciplines at ground level. Hazards and associated risks related to each mining operation are identified and their "Safe Operating Procedures" are recommended by the team, based on practical safety need at the ground level especially for workers deputed in the UG coal mines for elimination and reduction of mining risks and the same is updated considering the new risks given in any activity at quarterly intervals. The safety management plan prepared at Unit level is scrutinized by the Internal Safety Organisation (ISO) at corporate level and subsequently approved by DGMS, further it is reviewed periodically at company level to incorporate the additional requirements/changed conditions. As such during the process of formulation for approval of the safety management plan workers at ground level are involved in identification of safety needs of the mine and recommendation of the safe operating procedure to minimize risks, while officials of ISO and DGMS are involved in its scrutiny and approval.

Safety Inspection of Mines

2.25 The Committee were further apprised that one of the function of the Safety Committee was to undertake monthly inspection of mines. On being asked as to whether in actual practice, such stipulation for a monthly inspection take place regularly, the Ministry of Coal replied in positive and stated that yes, the Safety Committee is functioning effectively and inspect mine at least once in a month as stipulated in the Mines Rules- 1955. On being asked as to what were the main safety aspects covered in such inspection, the Ministry of Coal stated that during such inspection, the following aspects were covered:—

- (i) "Dangers in relation to mining operations viz. condition of Roof & Sides, adequacy of supports, safety aspects in haulage and travelling roadways, ventilation, sealed off area, old working, escape route, machinery, etc. Safety checklists are prepared for each and every location of Mines and for Specialized Mining Equipments (SMEs), Conventional Mining Equipments (CMEs), conveyors etc.
- (ii) Compliance of various statutory provisions.
- (iii) Status of functioning of different safety system installed/ commissioned in the mine.
- (iv) Suggest corrective measures for improving safety standards."

2.26 On further being asked as to whether follow up of such inspection reports were taken up, the Ministry of Coal stated that actions taken against deficiencies pointed out as well as corrective measures suggested by the Safety Committee were reviewed during the next meeting.

2.27 On further being asked as to what level in the hierarchy are these inspection reports and implementation thereof considered, it was stated that the inspection reports of the pit safety committee is implemented by the concerned departments and the same were reviewed by the Manager/Mine at Unit level and the inspection reports of the central safety committee under Internal Safety Organisation (ISO) was reviewed and implemented by the Unit/Area level.

2.28 On a pointed query as to whether the extant mechanism of inspection need further review and improvement, it was stated that the existing mechanism of inspection of the safety Committee is functioning satisfactorily as per provisions made under the Mines Rules, 1955.

Work Place Risk Assessment and Control (WRAC)

2.29 CIL have reportedly initiated Risk Management by adoption of the Globally Established Technique of Work Place Risk Assessment and Control (WRAC). On being asked as to what tangible benefits have been accrued after adoption of the WRAC in actual practice, the Ministry of Coal informed the Committee of the following tangible benefits that have been accrued:—

- (i) "Workers are able to identify the hazards and associated risks in mining operation.
- (ii) They can understand requirement of adopting control measures to eliminate or reduce risk.
- (iii) Able to perform their tasks safely.
- (iv) Resulting in less numbers of accidents and incidents.
- (v) Develop safety awareness among all employees."

2.30 On being asked as to whether occurrence of accidents have actually come down due to this initiative and to furnish quantifiable data to assess the effectiveness of this technique, the Ministry of Coal replied in the affirmative and stated that both the numbers of fatal and serious accidents have reduced in last 3(three) years since adoption of risk management as is evident from the table below:—

	2012		2013		2014	
Company	Fatal Accident	Serious Accident	Fatal Accident	Serious Accident	Fatal Accident	Serious Accident
CIL	57	212	55	196	44	183
SCCL			10	349	8	261

Risk Assessment and Safety Audit by NLC Ltd.

2.31 The Committee were informed that NLC Ltd. have reportedly carried out Risk Assessment and Safety Audit of Mines by Accredited External Agencies once in two years. In this context, the Committee desired to know what were the major recommendations made by this external audit agency and action taken thereon by Accredited External Agencies. In this regard, the Ministry of Coal have informed the Committee in a written reply as under:—

"Major recommendations of the external audit agency include the following:-

- (a) In respect of above study, a working document viz., 'Safety Management Plan' has 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.
- (d) Creation of awareness about COPs and SOPs among all at bottom level to avoid accidents.
- (e) High and medium level risks were identified in various locations for close monitoring.

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 activities of the 'Specialized Mining Equipments' have been formulated/ modeled/Codified for Safe Work Practices and approved by DGMS .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 counselling 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 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) Close monitoring is done on the safety aspects for high and medium level risk identified by the External Agency in various locations.
- (h) Safety Status/Safety Performance of every activity is being monitored/reviewed under the statutory framework.
- (i) Continuous monitoring of behavioural sense/attitude/ commitment of employees towards Safety is being done."

2.32 On further being asked to state as to whether provisions for systematic mandatory follow up for implementation of recommendations contained in such report exist in the extant rules/regulations governing the safety policy of NLC Ltd., the Ministry stated that the provisions for systematic mandatory follow up for implementation of recommendations contained in such report exist in the extant rules/regulations governing the safety policy of NLC Ltd.

Subsidence Problem

2.33 Un-scientific, un-systematic and illegal mining are the primary causes of fires resulting into subsidence. Coal, which are left as safety pillars and ribs during the course of extraction (mining) in old workings and abandoned mines, catches fires due to spontaneous combustion and gets further aggravated due to illegal mining, resulting into subsidence. In this context, the Committee desired to know as to what steps have been taken by the Government to ensure implementation of Master Plan for Jharia and Raniganj Coalfields dealing with fire,

subsidence and rehabilitation and diversion of surface infrastructure by 2019. The Ministry of Coal thereupon replied that un-scientific and un-systematic mining adopted by the erstwhile private mine owners in the past before nationalization in Jharia and Raniganj coalfields have resulted in large scale fire and subsidence in the above coalfield areas. Steps are being taken by Government/PSU to ensure implementation of the Master Plan for Jharia and Raniganj Coalfields dealing with fire, subsidence and rehabilitation and diversion of surface infrastructure.

2.34 The Ministry of Coal during their oral evidence on the subject held on 14.7.2015 submitted following information on the Master Plan for Jharia and Raniganj Coalfields:

- Master Plan approved 12.08.2009
- Estimated investment Jharia Coalfields: Rs. 7,112.11 crs. Ranigunj Coalfields : Rs. 2661.73 crs.
- Implementing Agency:
 - Jharia Rehabilitation and Development Authority for Jharia Coalfields.
 - > Asansol Durgapur Development Authority for Ranigunj Coalfields.
- Fire survey/study by National Remote Sensing Centre (NRSC), ISRO, Hyderabad in Aug., 2013 :

Initial Surface fire in JCF - 8.9 sq.km. Present surface fire area - 2.18 sq.km.

Monitored by High Powered Central Committee (HPCC) under the Chairmanship of Secretary (Coal).

Accidents and Fatalities

2.35 Accident statistics for the year 2014 in CIL subsidiaries up to August indicate that there were 34 fatalities and 123 serious injuries as compared to 35 fatalities and 143 serious injuries during the same period in 2013. After analysis of fatal accidents, several directives/ guidelines on corrective measures to be taken for prevention of recurrence of similar type of accident in future are being issued from the safety and Rescue Division of CIL. In this context, the Ministry were asked to state the reasons for recurrence of accidents though corrective measures were statedly taken after each accident. The Ministry of Coal have informed the Committee a written reply as under:—

"Despite the best of precautions and care being taken, accidents happen mostly due to reasons beyond human control. However, accidents are in declining trend. Following are reasons for recurrence of accidents:-

- Coal mining is known to be the most hazardous profession of the mankind, as the exploitation of the mineral is done by working against mother nature, which is fraught with dangers of disturbed roof & sides, toxic gases,, high temperature, fires, inundation etc.
- 2. The hazards associated in mining operations are far greater in numbers due to inherent adverse geo-mining conditions existing in some of the mines.
- 3. Most of the accidents are due to behavioural reasons resulting out of indiscipline.
- 4. Further, most of the workers of CIL are land losers/ project affected persons and un-skilled.
- 5. Some of the workers are habitual drinkers and illiteracy level among workers is very high compared to other organized industries.
- 6. Problem in acquisition of land also endangers safety.
- 7. Dense population in the mine leasehold areas and difficulty in shifting them to non-coal bearing areas due to R&R issues."

2.36 On a pointed query as to the steps that have been taken by the Government/Coal Companies to bring zero accident rate in Coal Mines, the Ministry of Coal have replied as follows:-

"As stated earlier, Indian coal mining scenario is completely different from the same in the other advanced coal producing countries such as, Australia where high degree of mechanization is adopted in coal mining operation with least deployment of workmen. Whereas, coal mining in India is highly labour intensive employing a large no. of project affected persons/land losers having low level of IQ and safety awareness. Hence great efforts are being made by the coal companies to enhance their skill, attitude, aptitude and safety awareness through constant training, monitoring and review both job related as well as behavioural aspects. In the above backdrop, achieving Zero Harm Potential in the mines of CIL is indeed very challenging. However, constant efforts are being made by the coal companies to harnessing all available resources to reduce accidents/ incidences. Steps being taken CIL/SCCL/NLC to achieve zero accident rate are as under:—

• 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.
- The technology adopted in NLC is environment friendly and aids in minimizing the accidents.

Bucket Wheel Excavators, Spreaders, Mobile Transfer Conveyors and Conveyors are deployed for continuous lignite mining and allied activities and all machineries are fitted with limit switches, emergency switches, slip monitoring devices, various type of safety clutches, safety coupling like fluid couplings, brakes, like 'Eldro' and other failsafe systems, to ensure machine Safety/avoidance of wasteful breakdown/ stoppage.

- All the required Personal Protective Equipments are compulsorily issued specific to the job requirement to the employees/contract workers before taking up the work.
- Systematic in-depth Accident Analysis is being done for accident prevention/to avert recurrence of accidents.
- Serious/Reportable/Near miss Accident Victims are given appropriate counselling as a recurrence avoidance and behavioural transformation.
- Area wise responsibility with priority to Safety is being enforced at all Mine Operational/Maintenance Activities for ensuring specific site supervision.
- 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 and Miner Tracking system.
- Installation Man Riding System.
- Strata Monitoring Devices.
- Phasing out of manual loading of coal (conventional mining) and introduction of semi-mechanization like SDL/LHD in its place.
- Use of Continuous Miner and Long wall Technology where possible to eliminate blasting hazards.
- Introduction of Roof Bolters for Resin Capsules bolting.
- Intensive training and review to improve competency of front line officials.
- Skill up-gradation training programme 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.
- On the job training is being imparted to inculcate Safety Awareness especially among the Contract Workers to adopt Safe Work Practices.
- Continuous monitoring of behavioural sense/attitude/ commitment of Employees towards Safety."

Compensation of Package Policy

2.37 On a further query as to the compensation package policy of Coal/Lignite Companies for fatal and accidental cases of regular and contract workers, the compensation packages being provided by the CIL, SCCL and NLC to the regular and contract workers in fatal and accidental cases were as follows:—

"CIL: CIL provides the following compensation, relief and employment etc. to the family of deceased who died in any mine accident arising out of and in course of employment as social security.

In case of fatal accident:

- 1. Payment of compensation under Employee's Compensation (Amendment) Act-2009.
- 2. Employment is offered to eligible kin of the deceased departmental employee. In case, there is no eligible person for employment, monetary compensation per month is paid to the family of the deceased.
- 3. Special Relief package of Rs. 5 Lakhs, which is in addition to the amount payable under Employee's Compensation (Amendment) Act-2009 for departmental employee.
- 4. Immediate payment for funeral expenses and transport etc. to the family of the deceased.
- 5. Monetary benefits under Life Cover Scheme (LCS) of Rs. 1,12,800 *w.e.f.* 01.02.2012 as per NCWA-IX for departmental employee.
- 6. *Ex-gratia* amount of Rs. 84,600 in case of death or permanent total disablement resulting on account of accident arising out of and in course of employment *w.e.f.* 01.02.2012 as per NCWA-IX.
- 7. Gratuity on the basis of the length of service, P.F. as per CMPF Rule, encashment of EL and Payment of Pension as per CMPS, 1998 are paid in addition to the above compensations.

In case of serious bodily injury:

- Compensation under the Employee's Compensation (Amendment) Act-2009 is being paid to serious bodily-injured person involved with permanent disability, after due assessment of the percentage of permanent disability by an approved Medical Board.
- 2. Additional *ex-gratia* of amount Rs. 84,600/ (*w.e.f.* 01.02.2012) in case of permanent total disablement resulting on account of accident out of and in course of employment for departmental employee.
- 3. Salaries/Wages is paid to the person, who is injured while on duty (IOD Case), for the period of his absence from duty due to the said injury and extensive medical treatment facilities are also provided either in Company's Hospital or any other referred Hospital during his injury period and beyond.

The compensation in case of fatal accidents and seriously bodily injury to contractor workers while on duty is paid by the contractors as per the provisions made under the Workmen Compensation Act-2009 (Amended). CIL, as a Principal Employer, ensures that payment of compensation to the next kin of the deceased contractor worker is paid by the respective contractor.

SCCL: In the case of fatal accident to a Regular employee of SCCL, Ex-gratia of Rs. 84,300/- and Special *Ex-gratia* of Rs. 5,00,000/- are being paid. Accident compensation and other benefits are paid as per the extant rules. In case of a contract Employee, the offloading Agencies are paying the compensation and other benefits. Payment by offloading Agencies is ensured by Principal employer.

NLC: The employment and other relief measures are being provided to the dependants of the employees/contract workers who loose their lives as given below:—

- In addition to the compensation paid as per Worker's Compensation Act, 1923, the following schemes are also available to the next kin of the Accident victims while on duty.
 - (a) Employment opportunity is being given on compassionate ground to eligible the next kin of the accident victims while on duty.
 - (b) Family Relief (in lieu of employment) to the eligible dependants of the deceased, introduced in 1994.
- In case of death of an employee as a result of accident arising out and in the lieu of employment Rs. 8,500/per month is paid as Family Relief.
- In case of death of Contract Workmen due to accident arising out of and in course of employment the family relief of Rs. 5,100/- per month is paid as family relief.
- In case of natural death while in service, Rs. 6,750/- month is paid as Family Relief."

2.38 On being asked to furnish details of the fatal/serious injuries cases in open-cast and underground mines, Subsidiaries-wise, the Ministry

of Coal have furnished as follows:-

Compa	any			E	ATALITIE	ES			
	Un	dergrou	und	(Opencas	st		TOTAL	
	2012	2013	2014	2012	2013	2014	2012	2013	2014
ECL	7	4	5	4	4	1	11	8	6
BCCL	3	7	3	9	6	4	12	13	7
CCL	2	0	3	4	9	2	6	9	5
NCL	0	0	0	7	6	6	7	6	6
WCL	4	2	1	6	7	9	10	9	10
SECL	7	7	7	4	6	5	11	13	12
MCL	0	0	0	2	1	0	2	1	0
NEC	1	0	0	0	0	0	1	0	0
CIL	24	20	19	36	39	27	60	59	46
SCCL		4	7		6	1		10	8
NLC	_	_	_	4	_	2	4	_	2

CIL: Fatal/serious injuries cases in open-cast and underground mines, Subsidiaries-wise are given below:—

Company		SERIC	DUS INJ	URIES					
	Underground		und	(Opencast		TOTAL		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
ECL	81	61	65	8	1	4	89	62	69
BCCL	24	15	9	6	2	8	30	17	17
CCL	2	1	2	7	6	5	9	7	7
NCL	0	0	0	9	17	9	9	17	9
WCL	21	35	21	8	12	17	29	47	38
SECL	34	34	23	11	6	9	45	40	32
MCL	5	3	1	3	7	12	8	10	13
NEC	0	0	1	0	0	0	0	0	1
CIL	167	149	122	52	51	64	219	200	186
SCCL		304	236		45	25		349	261
NLC	_	_	_	5	3	2	5	3	2

Company	fa	tal fataliti	ies	Se	rious injur	ies
	2012	2013	2014	2012	2013	2014
GIPCL	-	1	-	-	-	-
GMDCL	-	4	-	-	-	-
IISCO	1	2	1	-	1	-
ICML	-	-	-	-	-	-
JPL	-	-	-	-	1	3
BLMC	1	-	5	-	-	-
Ms. ECL	3	1	-	2	-	-
JNL	3	1	-	2	-	-
JSPL	1	2	-	-	-	-
SEML	1	-	-	1	-	-
TISCO.	-	2	2	2	1	5
MIEL	-	-	-	1	-	1

Further similar information regarding such cases in mines operated by captive mine holders and private players reportedly based on information provided by Directorate General of Mines Safety was as under:—

Director General of Mines Safety

2.39 The Directorate General Mine Safety (DGMS) was vested with the responsibility to ensure the compliance of provisions under the Mines Act, 1952 and Rules & Regulations made thereunder for improvement in safety of mining operation. In this context, Ministry of Coal were asked as to how many times DGMS has inspected mines of CIL, NLC and SCCL during the last 3 years to ensure compliance of provisions under the Mines Act, 1952 and Rules & Regulations made there under for improvement in safety of mining operation. THe Ministry thereupon replied that DGMS is divided into various regions for effective monitoring of safety provisions. Under each region, DGMS officials are deputed to inspect all mines of CIL in their domain. The records of inspection and violations/deficiencies observed are maintained in Form-VI as per statute by each mine. Generally, they inspect each mine at least 4 times in a year. However the details of inspections carried out by DGMS Officials at NLC Ltd. Mines during the last three years were given below:—

Sl.No.	Year	Mine-I	Mine-II	NLC Mines
1.	2012	3	15	18
2.	2013	7	11	18
3.	2014	7	4	11

2.40 On a pointed query as to what were the observations/ recommendations of DGMS and whether the same have been implemented, the Ministry of Coal stated that during their inspections DGMS officials point out statutory violations in the mine and record it in a bound page register (FORM-VI). Necessary corrective actions were taken by the mine management for compliance of such violations as pointed out by the DGMS. The compliance report is sent to DGMS for their records.

Risk Management Committee Meetings

2.41 In SCCL, reportedly all Mine Managers were advised to organize monthly and quarterly Risk Management Committee Meetings for the Year 2014-15. On being asked to state how many such meetings have so far been organized, the Ministry stated that in SCCL monthly and quarterly Risk Management Committee Meetings were held in all mines in year 2014-15.

2.42 On a pointed query as to what was the outcome of such meetings and whether these have been continued during 2015-16, the Ministry of Coal stated that during the meetings, prioritization of subjects/items in the Management Plan was reviewed and modified if necessary. These meetings were being continued during 2015-16.

2.43 To a query as to whether such meetings were being organized in other subsidiary companies also, the Ministry replied in the affirmative and provided the details of such meetings held and actions taken in this regard by subsidiaries of CIL are as under:—

- 1. "Development of talent pool for risk management: In CIL, a training programme was arranged by CIL with "Safety in Mines, Testing and Research Station (SIMTARS), Specialized Agency for Mine Safety, Research & Training under Department of Labour of Queensland Government, Australia to develop Safety Trainer.
- 2. Training to all unit level executives in risk management: These executives, who have been trained by SIMTARS, Australia are engaged for imparting training and upgrading the knowledge of mine level executives to identify the hazards and evaluate the associated risks in the mines and prepare Risk assessment based Safety Management Plans (SMPs).
- 3. Preparation of Risk assessment based Safety Management Plans (SMPs): On the basis of training being imparted, the Risk assessment based Safety Management Plans (SMPs) have been prepared for all mines of CIL.

- 4. Implementation of the SMPs: It is under progress. However, in coal mining Risk Management is an on-going activity.
- **5. Monitoring and review mechanism:** In CIL, for reviewing the implementation of risk assessment based Safety Management Plans (SMPs) the following is the monitoring system:—
 - 1. Monthly review of SMP by unit level Safety Committee (PSC),
 - 2. Quarterly review of SMP at Area level,
 - 3. Half-Yearly review of SMP's at Company ISO level,
 - 4. Annual review of SMP's at CIL."

In all subsidiary companies of CIL, at least one meeting of Risk Management/Safety Committee meeting under Chairmanship of the respective Mine Manager is organized in every month, where implementation Risk assessment based Safety Management Plans (SMPs) are being assessed. Further, SMPs are also being assessed at area level in every quarter.

Outcome of meetings

Risk assessment based Safety Management Plans (SMPs) prepared are being reviewed and further modified. These reviewing process is continuing in this year also *i.e.* 2015-16 for further upgrading Safety Management Plans (SMPs).

Risk Management Committee Meetings were conducted 6 times during the year 2014-15 at NLC. Risk assessment and minimization procedures are reviewed during the meetings and submitted to the NLC Board on half yearly basis. The outcome of these meetings is given below:—

- Specific attention to High Impact High Frequency Risks was given and mitigation procedures were evolved.
- It was decided that the members of Risk Cell both at corporate and unit level may be imparted training on Risk Management. Accordingly Risk Management Training is being organized for Senior Management and Middle Management.

The above process is continued for 2015-16.

Manual loading

2.44 The Ministry of Coal is reportedly phasing out of manual loading as per the recommendations of 10th National Safety Conference was being undertaken. The Committee desired to know the present status of implementation of recommendations of 10th National Safety Committee (NSC) in different coal mines of CIL, NLC and SCCL and by when manual loading will be completely phased out. The Ministry thereupon stated that no new underground Mines are being planned with manual loading arrangement. Presently, there are 29 underground mines in CIL where Manual loading is in operation. CIL has planned to phase out the manual loading operation from these mines within a period of 03 years *i.e.* by 2017-18. While SCCL had already phased out Manual loading operation at 27 mines out of 31 underground mines and has planned to phase out manual loading arrangement from the balance 4 mines by 2016-17.

Man Riding System (MRS)

2.45 Man Riding System (MRS) were reportedly being installed in all underground mines having long haul/arduous travel. The Committee desired to know the number of Man Riding System (MRS) that have been installed in underground mines and also the time by which all existing underground mines will be covered. The Ministry thereupon stated that man riding arrangement has already been commissioned in 25 mines of CIL, while man riding arrangement has been planned to be commissioned at 44 mines within a period of 3 years and at remaining mines within a period of 10 years. At SCCL, out of 31 underground mines, 29 mines have been provided with various Man Riding Systems, two underground Mines are not provided with Man Riding Systems because production from one mine is yet to be commenced and another mine is planned for closure within a short period.

2.46 On a further query as to how the Ministry/DGMS ensure that all mines both in public and private sector were covered by Man Riding System, the Ministry replied that a regulation has been incorporated at the proposed CMR 2015 *vide* regulation no. 94(6) which requires that all underground mines where the travelling distance from the incline or adit mouth or pit bottom exceeds one kilometer or the travelling is arduous must be provided with Man Riding System (MRS) arrangement within one year from the date of coming into force of these regulations.

Zero Harm Potential (ZHP)

2.47 The Committee have been apprised about a roadmap to achieve 'Zero Harm Potential (ZHP)' in CIL areas. Statedly, a comparative chart of accident status in major coal producing countries *viz*. USA, China, Australia revealed that Australia had the lowest accident rate. Based on the above backdrop in the year 2010, a training programme was arranged by CIL with 'Safety in Mines, Testing and Research Station (SIMTARS)' 36

Specialized Agency for Mine Safety, Research and Training under the Department of Labour of Queensland Government, Australia to develop trainer with an objective to improve safety standards in mines. In this context, the Committee desired to know what had been the tangible outcome of this initiative and asked for data in support of their contention. The Ministry thereupon stated that executives who have been trained by SIMTARS, Australia were engaged for imparting training and upgrading the knowledge of mine level executives to identify the hazards and evaluate the associated risks in the mines and prepare risk assessment based Safety Management Plans (SMPs). On basis of training, SMPs have been prepared for all mines of CIL and the same were under implementation. Details are given below:—

No. of executives trained in 1st phase of training programme	1488
No. of executives trained in 2nd phase of training programme	1341
No. of persons trained during upgradation/ review training programme	1154
No. of risk assessment based SMPs prepared	All mines of CIL
No. of SMPs already reviewed by SIMTARS accredited executives of CIL for further modification	374

2.48 On a pointed query as to whether the training module was a onetime initiative or a continuous process, the Ministry of Coal stated that this training module is a continuous process for overall improvement of safety in mines.

2.49 On a further query as to whether the CIL have actually been able to adopt and instill the good practice processes relating to Mine Safety as observed during the training module at Australia, the Ministry replied in the affirmative and stated that CIL has adopted good practices as per training module started in 2012 and the same is under implementation.

2.50 The Committee has been apprised of the framing of Roadmap to achieve 'Zero Harm Potential':--

"Safety is always our highest priority. Safety is embedded in our mission statement and is one of the most important factors in our overall business strategy. CIL has framed a well-defined safety policy to ensure safety in our mines and establishments. CIL has well established multi-disciplinary internal safety organization in all subsidiaries for implementation of Safety Policy. All operations, systems and processes are meticulously planned and designed with due regard to safety, conservation and sustainable development. CIL always encourages employees' participations at all levels so as to promote proactive safety culture and to improve safety awareness at grass root level.

With our consistent efforts, continuous improvement in safety standards are achieved which is reflected in reduction of fatalities and serious injuries. To achieve further improvement, initiatives are being taken in various spheres which are as follows:—

- A. Mining Operation: Adoption of the state-of-the art technology in suitable geo-mining locales.
 - 1. Adoption of Mass Production Technology in more number of underground mines.
 - 2. Deployment of more number of surface miners to eliminate blasting operations in O.C.Ps.
 - 3. Deployment of relatively higher capacity HEMM in more number of O.C.Ps.
 - 4. Mechanisation of underground drilling.
 - 5. Phasing out manual loading in underground mines.
- **B. Strata Management:** Thrust on prevention of roof & side fall accidents.
 - 1. Roof bolting as an integral part of support system in underground mines.
 - 2. Switching over to use of resin capsules from cement capsules in phased manner.
 - 3. Monitoring of strata by strata monitoring devices.

C. Prevention of Spontaneous heating:

- 1. Expedite construction of sectionalisation stoppings.
- 2. Pressure Quantity (PQ) Survey for checking efficacy of ventilation standards at regular intervals.
- 3. Use of more number of Gas Chromatographs for mine air sampling.
- 4. Use of Local Methane Detector (LMD) for early and accurate detection of methane.

5. Environmental Tele-Monitoring System (ETMS) in degree III & fiery underground mines.

D. Training:

- 1. Skill upgradation training to frontline officials and workmen.
- 2. Behavioural based training for all employees.
- 3. One Week Training to all frontline supervisors.
- 4. Training of Dumper Operators on Simulators.

E. Others:

- 1. Slope monitoring devices in O.C.Ps. for prediction of bench/dump failure.
- 2. Digitization of mine plan.
- 3. Introduction of LED type light weight cap lamps in underground mines.
- 4. Man Riding System (MRS) for underground mines having long and arduous travel.

In an endeavour to achieve "Zero Harm Potential", the safety system of CIL is analyzed in depth *vis-a-vis* other coal producing countries. It was revealed that safety standard of Australia has been by far the best amongst leading coal producing countries. Australia has achieved almost zero fatality in their mines consistently during last decade. They are doing risk assessment in all mine operations based on which they are preparing Safety Management Plan (SMP) for all mines and the same are being implemented in true spirit.

To achieve "Zero Harm Potential", CIL having explored all possibilities has finally adopted the safety management system of Australia which is now recognized as the best in the world.

In the above backdrop, a group consisting of twenty executives have been trained in Australia in Risk Management System. These trained executives are being deployed for imparting training to other executives responsible for implementing the safety management system in mines of CIL. They are further giving training to the grassroot level workers for preparation of risk assessment based Safety Management Plan (SMP).

SMPs for all mines of CIL have been prepared and are being reviewed on regular basis. SMP is a continuous process which needs regular review and updation with the dynamics of mines. However due to differences in technological and socio-economic conditions prevailing in India, the progress in implementation of the same is slow.

Upon in-depth study, comparison of our mining system with the same of the other advanced coal producing countries, the following contrasting differences are observed:—

System	Coal mines of Advanced Countries	Coal mines of CIL
1	2	3
Mechanization	All underground as well as OC workings are highly mechanized. Very less manpower is deployed in mining activities. In underground mines, requirement of workmen to enter the area under green roof is minimum. Hence exposure to risk of workmen is minimum. Mostly underground mine face machinery are remotely operated.	Underground mines are highly labour intensive and low productive. In OCPs relatively low capacity HEMMs are deployed due to limited working area.
Working space	Land is not a constraint.	Due to delay in land acquisition, many mines especially OCPs are working in constricted space. Risk increases many fold due to poor mine shape. Non-availability of land for dumping has resulted in many unstable dumps.
Vicinity of mines	Mining Areas are far away from dwellings/habitation.	Mining Areas are generally having dwelling/habitation and other surface constraints. People do not vacate land even after receiving compensation. Many habitants make a living on coal picking from dumps and theft of coal from mines, which increases the risk of accidents.
Legacy Problem	There is no legacy problem.	CIL was formed after taking over mines from erstwhile private owners. These mines are even more than hundred years old. Most of these mines are having multi seam working contained water and fire in upper sections which are abandoned long back leading to transference of danger to present sections.

1	2	3
Workforce	Workforce appointed solely on basis of job requirement and competency. Hence all employees are highly educated, skilled and competent. Labour laws are flexible, "hire and fire rule" is practiced for incompetent workmen.	Mostly land oustees are appointed who are generally semi-educated/ uneducated.

To achieve **"Zero Harm Potential**" in mines of CIL following additional measures are envisaged to be implemented:—

- 1. Implementation of SMP in true spirit and continual review and updation of the same.
- 2. Implementation of Take-5 as an informal risk assessment tool before starting of any operations.
- 3. Upgradation of knowledge to cope with the technological changing scenario.
- 4. Risk Management system shall be ingrained right at the project planning stage, itself.
- 5. Restructuring/Re-organization of relatively small mines into bigger mines shall be done for adoption of Mass Production Technology.
- 6. Land for O.C.Ps. shall be acquired in one go and all the mining areas shall be fenced by permanent fencing so that operations of mines can be done as per approved plan.
- 7. High capacity equipment shall be deployed in O.C.Ps. for faster excavation. After mining, land shall be restored back to its original shape.
- 8. Effective Training and feedback system shall be introduced and incompetent and physically unfit workmen shall be debarred from operational activities."

2.51 Regarding Zero Accidents, the Secretary, Ministry of Coal while deposing before the Committee on 14.7.2015 has submitted as under:-

"At the Ministry level, we want zero tolerance in this. We cannot get away with the numbers saying 62 is a small number. The point is there are 62 lives *per annum* that are lost. So, it is a very serious concern at our level. The hon. Minister is also extremely concerned about this. In the last Safety Meeting which he held, he was very clear in his mind that this has to be brought down to zero and specific steps need to be taken in this regard."

2.52 In this regard, a representative of Ministry of Coal further submitted as under:—

"Training is the most important requirement for zero accident potential and it is must for everyone from top to bottom level. Some of our officers were trained in Australia whose details are given below. They were given special training related to the use of latest basic facilities to keep the accidents at minimum level. One more batch of 50 officers is about to go for training. The trainers will be trained in Australia keeping in view Indian conditions and then they will come here. Here they will train the lowest level worker and everyone will be made to understand how to face different situations in different conditions."

CHAPTER III

HEALTH FACILITIES FOR INHABITANTS/WORKERS IN COAL/LIGNITE MINING AREAS

A. Coal India Limited (CIL) and its subsidiaries

According to the Ministry of Coal, Coal India Limited and its subsidiaries are extending medical facilities to the employees and their families through various medical establishments from the Dispensary level to the Central and Apex Hospitals in different parts of the coalfields. The company also provides treatment to local inhabitants of nearby villages. It also extends treatment to CISF Personnel attached to CIL and its subsidiaries. The contractual workers are also provided treatment and occupational health services throughout the company. The company has three-tier medical facilities, namely dispensaries, hospitals (regional & Central) and empanelled corporate hospitals and medical colleges. There are 79 hospitals with 5709 beds, 418 dispensaries, 212 empanelled corporate hospitals and medical colleges, 589 ambulances, 1445 doctors including specialists and 3278 paramedical staffs in CIL and its subsidiaries to provide medical services to the employees. In addition, 11 Ayurvedic Dispensaries are also being run by the subsidiaries of Coal India Limited to provide indigenous system of treatment to workers. There are 29 medical vans for conducting health camps which covered 325319 beneficiaries from April, 2013 to March, 2014. The hospitals are well equipped with infrastructure like ECG machines, X-Ray machines (digital), USG machines, ECO machines, Audiometry, PFT apart from good quality labs CT Scan machines are also available in different hospitals.

3.2 The Committee desired to know whether any data have been maintained by hospitals/dispensaries run by CIL and its subsidiaries for treatment provided to inhabitants of nearby villages and contract workers and details for the last 3 years. The Ministry of Coal thereon replied as under:—

"Hospitals/dispensaries run by CIL and its subsidiaries maintain data on treatment provided to inhabitants of nearby villages and contract workers. Subsidiary-wise details are given below:—

ECL - (i) Inhabitants of the ECL command area are treated under CSR activities of ECL through 5 mobile vans.

(ii) Contract labours attend the OPD of any of the regional hospitals of ECL or two central hospitals or colliery dispensaries free of cost.

BCCL-BCCL has maintained data in hospitals & dispensaries as well as at the head quarter.

CCL – such patients are treated at par with permanent employees of company without any discrimination. However, health awareness data related to contractual workers are maintained in PME centers of CCL.

SECL — under CSR, health camps are organised in various villages for the villagers and CSR dispensaries are run at company hospitals for people of BPL category. All contract workers are given free OPD & indoor treatment with the available facilities at company hospitals & dispensaries. These data are maintained.

WCL – treatment is being provided to inhabitants of nearby villages and contract workers through mobile medical vans and data maintained.

NCL — treatment is provided to inhabitants of nearby villages, free of cost, through various CSR health camps conducted by the company & through dispensary on wheels to Ambedkar Nagar & Birkunia villages. These data are maintained.

MCL - Facilities are extended. Data are maintained.

NEC – People from nearby villages & CIL's contract workers are provided free of cost treatment by NEC. These data are maintained.

Subsidiary-wise details are given below:-

ECL - total number CSR camps organised in the year 2014 = 438.

Total number of beneficiaries = 20214.

IME & PME of contractual workers:-

Year	No. of workers
2012	1468
2013	1844
2014	304

BCCL-activities	No. of camps	No. of beneficiaries
2012-13		
MMV (Swasthya Rath)	2638	74090
Health camps (Bahujan Hitaya)	250	14595
CSR clinics (Sarokar)		42462
FW camps (Mamta)	24	864
Eye camps (Jyoti Abhiyan)	22	922
2013-14		
MMV (Swasthya Rath)	3164	98242
Health camps (Bahujan Hitaya)	247	18499
CSR clinics (Sarokar)	_	63261
FW camps (Mamta)	26	882
Eye camps (Jyoti Abhiyan)	15	558
AIDS awareness (Mission Mitwa)	35	1309
Wellness clinic	_	18772
2014-15		
MMV (Swasthya Rath)	2828	79057
Health camps (Bahujan Hitaya)	220	9864
CSR clinics (Sarokar)	_	31033
FW camps (Mamta)	33	943
Eye camps (Jyoti Abhiyan)	15	558
AIDS awareness (Mission Mitwa)	11	409

CCL

	Year	No. of beneficiaries
CSR	2012-13	90744
	2013-14	111559
	2014-15	119828
PME	2012	10943
	2013	8200
	2014	8645
	2015 (upto April)	1598

Contract workers PME

	2013		2815
2014			370
SECL			
Year		No. of Village camp	beneficiaries os CSR dispensaries
2012-13		140325	20326
2013-14		110859	50988
2014-15		71259	24557

All contract workers are treated free of cost.

 $\rm WCL-$ the number of camps held and the beneficiaries for the last three years are as under:-

Year	Camps ben	eficiaries
2012-13	906	75746
2013-14	866	66794
2014-15	720	42932

NCL — In the year 2013-14 total number of beneficiaries was (10840+3312)= 14152 & in 2014-15 total number of beneficiaries was (6054+2235) = 8289. Contractual workers treated as indoor patient free of cost in NSC in 2013 was 51 in number, in 2014 it was 69 in number and in 2015 till date 8 in number.

MCL - Various CSR activities and beneficiaries:-

2012-13

No. of camps - 156

Beneficiaries - 2254

Name of camps	No. of camps No	o. of beneficiaries
1	2	3
2013-14		
General health awareness camp	50	7457
Diagnostic camps	14	1920

1	2	3
Cancer detection camp	1	194
Eye camp	8	784
Family planning camp	5	319
AIDS awareness camp	13	4370
Routine health camps	169	8196
Total	260	23240
2014-15		
General health awareness camp	41	5517
Diagnostic camps	28	2186
Cancer detection camp	1	31
Eye camp	3	432
Family planning camp	4	18
AIDS awareness camp	17	5078
Routine health camps	55	3627
Total	149	16889

NEC — The following are the numbers of patients of above categories treated by NEC, Margherita as below:

Year	Total no. of patients	
2012-13	251	
2013-14	163	
2014-15	287	

PME done during last three years:

Year	Employees	Contract workers
2012-13	485	12
2013-14	448	9
2014-15	170	

 $\rm NEC-Last$ 3 years no workers identified with occupational health disease. No camp of occupational health camps was held in above period."

Occupational Health Hazard

3.3 On a pointed query as to what are the major occupational hazards faced by workers deputed in coal mines, the Ministry of Coal stated that as regards CIL, coal worker's pneumoconiosis is the major occupational health hazard beside that, other occupational hazards faced by coal mine workers are due to dust, vibration, noise, light, electricity, heat, pressure, machinery, etc. Major occupational hazards are chronic backache, chronic bronchitis, and dermatitis in underground mines & in open cast mines deafness, vibrational syndrome, cataract due to poor light etc.

3.4 Asked to state the preventive measures taken by the Ministry/ Coal PSUs to face the challenges of such occupational health hazards, the Ministry of Coal have furnished the Committee that as regards CIL, Periodical Medical Examinations – PME was regularly conducted for all workers & executives at well-equipped PME centers including Spirometry, radiography of chest etc. for early detection of occupational health diseases, super speciality clinics were organised in association with super speciality hospitals, health awareness programmes held time to time to educate workers about preventive measures of diseases. Workers are provided protective gears eg. helmet, cap lamp, mask, boots, etc. Water was sprinkled regularly at workplace and covering of coal loaded truck with tarpauline & face masks to protect from dust, use of ear plugs to protect from noise, regular safety drills and holding of first aid classes for prevention of accidents. Regular monitoring was done with the help of lux meter for proper illumination; enough lighting is maintained to prevent miner's nystagmus. ORS provided to all mines. All mines have dispensary equipped with medical officers and first aid medicines. Emergencies were attended by dispensary doctor and referred to central hospital if required.

3.5 On a pointed query as to whether the initiatives statedly taken up by the Ministry and coal PSUs on the aspect of addressing the health of workers have actually brought about improvement of overall health of workers/inhabitants of coal bearing areas, the Ministry of Coal in a written reply have informed the Committee as under:-

"Throughout all the subsidiaries of Coal India, number of cases of coal worker's pneumoconiosis has come down drastically in recent years. This indicates that continuous biological and environmental monitoring has resulted in better health conditions of coal mine workers. Subsidiary-wise details are given below:—

ECL — last three years no occupational disease detected among workers, this indicates that the workers are well aware of their health and following the advice of doctors.

BCCL- as no worker has been identified with occupational health disease, that itself is a marker indicating that workers are provided with good health services.

CCL – continuous efforts are being made to improve the health of their workers and nearby inhabitants in command areas and drastic improvement is being noted.

SECL — there is a marked reduction in occurrence of coal worker's pneumoconiosis. Data of cases of coal worker's pneumoconiosis for the last three decades is given below:

Year	CWP detected	
1984-1993	160	
1994-2003	nil	
2004-2013	01	

WCL – through a system of periodical medical examination, efforts for early detection of work related disease are made. No cases of pneumoconiosis have been detected for the last three years.

NCL — different guidelines were issued from time to time for preventive & promotive health care. It appears that there is reduction in occupational health hazards reflected by reduced number (Non-detection) of pneumoconiosis during last several years. No other occupational health hazards like hearing loss, vibration induced ailment, skin ailment have been detected.

 $\rm MCL$ – last three years no occupational disease detected among workers in MCL.

 $\rm NEC-$ due to a preventive measure on regular PME, no occupational health disease detected until now."

3.6 On being asked as to what improvements have been introduced on modernization and expansion of medical facilities during the last few years, the Ministry of Coal in a written reply have furnished the following:—

"Subsidiary-wise details are given below:

ECL — 14 numbers of PME centres are well equipped with modern gadgets like 12 lead ECG, spirometer, audiometer and well equipped laboratory.

BCCL – there are 12 regional hospitals & one central hospital to cater to the workforce & their families, dispensaries in collieries. There is a team of qualified doctors and specialists with paramedical staff. There is telemedicine for consultation with super specialists. There are large numbers of hospitals empanelled with the Company where patients are referred on company expenses to deal with medical problems that cannot be tackled here. For dealing with such cases of diagnostic dilemma patients are also referred to CMCH, Vellore. No stone is left unturned to see that the employees and their families lead a perfectly healthy life.

CCL — to improve health status of workers and inhabitants of command areas, medical department is having 4 central hospitals (previously it was only two) to cater health services. Further following improvements have been done: (1) upgradation of dispensaries & area hospitals, (2) Blood transfusion centre-4 in number, (3) PME as per recommendation of 11th safety committee.

SECL — during last few years, modern methods of radiological diagnosis, pathological investigations, spirometry, audiometry, TMT, echo cardiography, ultrasonography, video endoscopy, laparoscopy, bronchoscopy & CT scan are introduced. Three central hospitals, eight regional hospitals, 56 dispensaries including DCC, 845 beds, 232 doctors, 693 paramedics etc. Apart from these facilities, 243 hospitals are empanelled for providing specialised treatment to the employees and their dependants.

WCL — the recommendation of 10th & 11th national conference on safety have been implemented. Procurement of upgraded ECG machine, audiometer and spirometer is under process. Autoanalysers have been installed.

NCL — facilities like creation of separate 24 hr casualty/emergency department, CCU, NICU, blood bank providing services round the clock to the employees & their eligible dependents & as well as to the general public. Besides that, investigations like CT scan, MRI, Echocardiography with colour doppler, mammography, TMT, holter monitoring, video endoscopy & colonoscopy, haemodialysis, CAPD, non-invasive external pace making, wellness clinic for diabetic, hypertensive & kidney patients have been introduced.

MCL — all major medical equipments like CT scan, digital x-ray, spirometry, audiometry, colour doppler, USG machine, semi auto analyser etc. One 50 bedded hospital is under construction at BG area. One 50 bedded hospital is planned for Lakhanpur area. Upgradation of Central Hospital, Talcher along with establishment of medical college is under process. **NEC** — recently, modernization of central hospital, NEC done with procurement & installation of a digital X-ray machine, USG machine, eye diagnostic equipment and BMW (bio medical waste) management equipment."

3.7 The Committee have been apprised that CIL maintains a well staffed and well equipped organization for occupational health surveillance, which is statedly been done as per the system laid in the statutes. It was further stated that every worker undergoes an Initial Medical Examination (IMR) and Periodical Medical Examination (PME) once every five years as per the standards laid down in the Mines Rules by specially trained medical officers. In this context, the Committee sought to know whether the stipulation for periodic medical examination once every five years need to be reviewed and the periodicity reduced to once every two or three years. In reply thereof, the Ministry of Coal stated that in all the subsidiaries of CIL, PME was being done following 10th and 11th safety committee recommendation. In all the subsidiaries except BCCL, PME is done every five years for workers less than 45 years of age and every three years for workers more than 45 years of age. In BCCL PME is done every three years for all the employees. However, the periodical medical examination once in every five years may be reviewed and reduced to once in every three years. For employees engaged in food handling such as kitchen & canteen employees, cooks etc. And people engaged in stemming material (gota makers) - routine stool examination should be done every 6 months and sputum for AFB and chest radiograph once in a year. Operators should have eye examination (refraction) on yearly basis.

Year	No. of PME
2012	4352
2013	4543
2014	4688

3.8 On being asked to highlight the functions as well as the achievements of the occupational disease board of CIL in the last three years, the Ministry furnished the following information:—

"Functions of occupational disease board: Occupational disease board is constituted with chief of medical services of subsidiary, occupational health specialist, physician/chest physician and radiologist. This board meets periodically to examine the suspected cases of CWP and other notified diseases under mine's act, detected during PME at different areas and to confirm the disease. In confirmed cases it decides compensation to be paid to the employee and rehabilitation by change of job. Board also reviews the CWP cases on role every year to assess the progress of disease even after retirement.

Continuous & sustained biological monitoring by medical discipline as well as environmental monitoring by safety department has achieved remarkable progress in preventing Coal Worker's Pneumoconiosis (CWP) — the number of new cases of CWP has come down considerably. At present, though there are 20 cases of CWP on role, detection of new case in last three years is as follows:

 $\ensuremath{\text{SECL}}$ – during last three years only one case of Coal Worker's Pneumoconiosis (CWP) was detected.

MCL - 2 (two) cases of pneumoconiosis in 2013 and one case of pneumoconiosis in 2014.

In all other subsidiary companies like ECL, BCCL, CCL, WCL, NCL&NEC, no new case was detected in the last three years.

This is a main achievement of occupational disease board in preventing major occupational health hazards."

3.9 The Committee were further informed that vaccination programmes are regularly undertaken in command areas of CIL and its subsidiaries. Some other actions are:-

- i. **CSR (Medical activities):** Medical camps like eye camps, artificial limb camps, HIV awareness camps are being organized under CSR activities.
- ii. OCCUPATIONAL HEALTH SERVICES: Regular IME (Initial Medical examination) and PME (Periodic Medical Examination) are done as per 10th & 11th safety Committee recommendations.
- iii. **FIRST AID TRAINING PROGRAMME:** First aid training programme is an integral part of mining industry to facilitate immediate first aid treatment to the injured or sick person.
- iv. HIV CONTROL & AWARENESS PROGRAMME: Trained Doctors and paramedical staffs are engaged in CIL and its subsidiaries as per National Aids Control Organisation (NACO).
- v. NATIONAL HEALTH PROGRAMMES: CIL also takes necessary measures to implement the different National health programmes:
 - (1) National Family Welfare Programme
 - (2) Revised National Tuberculosis Control Programme

- (3) National Leprosy Control Programme
- (4) National Immunization Programme
- (5) National AIDS Control Programme
- (6) National Blindness Prevention Programme
- (7) National Breast Feeding Programme
- (8) National Vector Control Programme
- (9) National Cancer Prevention Programme.

B. Neyveli Lignite Corporation Limited (NLC)

3.10 Neyveli Lignite Corporation Limited provides quality medical treatment and occupational health service through its General Hospital to all inhabitants of the Nevveli Township and its surrounding villages, including comprehensive medical treatment to the contract workmen and their family members. NLC maintains a 355 bed General Hospital (GH) at Neyveli that takes care of the health and medical care needs of its regular employees, contract workmen and their eligible dependants. Delivery of medical care services includes general medicine, general surgery, paediatrics, obstetrics & gynaecology, orthopaedics, ophthalmology, ENT, dermatology, chest medicine and psychiatry, ayurveda and occupational health services. Ayurveda and occupational health services renders NLC's health care model unique. NLC has upgraded the emergency care unit and the laboratory facility with state of the art diagnosing devices like bed side multi-parameter monitors, nebulizers, defibrillators, central oxygen and suction lines besides ECG, including Tele-ECG. The upgraded minor operation theatre facilitates taking up minor surgical procedures in trauma cases. General Hospital contributes to the goal of various National Health Programmes like:-

- > National Family Welfare Programme,
- > Revised National Tuberculosis Control Programme,
- National Leprosy Control Programme, Immunization Programme,
- > National AIDS Control Programme,
- > National Blindness Prevention Control Programme, and
- National Breast Feeding Promotion, etc. by sharing infrastructure facilities and manpower resources for impacting outcomes of these programmes. Notable among the advances made in the implementation of National health programmes include creation of Polio free society in and around Neyveli, prevention and control of HIV, TB and leprosy in this region.

PREVENTIVE HEALTH CARE PROGRAMME - OCCUPATIONAL HEALTH OF MINERS

OCCUPATIONAL HEALTH SERVICES

3.11 The Occupational Health Services (OHS) model is unique in Neyveli Lignite Corporation whereby it is integrated with the overall Hospital Care Delivery System of the company. The OHS has appropriate system of delivery of occupational health services to Miners, employees of Thermal plants and CISF security personnel. The OHS informs workers of how their personal health information is recorded and used, how to access their personal information and their rights in relation to how their personal information is shared with statutory authorities and used. Informed consent is obtained for certain interventional procedures and the workers are informed of the role of OHS professionals and purpose of medical examinations.

3.12 Major programme components of OHS in NLC Limited includes the following:—

Periodic Medical Examination (PME) of Miners: The OHS unit implements Periodic Medical Examination programme as per DGMS guidelines to monitor the occupational health and well being of miners. PME is conducted once in 3 years for miners who are in the age bracket of 45 years & above and once in 5 years in the case of those who are below 45 years of age. PME also focuses on prevention of life style and stress related disorders in addition to examining the miners for any occupationally related illness through appropriate investigations. During each phase of PME, around 15,000 miners are examined for life style disorders and occupationally related disorders like coal miners pneumoconiosis and noise induced hearing loss. X-rays of suspected miners are sent to National Institute of Occupational Health for expert evaluation and assessment towards Notification of Coal Miners Pneumoconiosis.

Metalliferous Mining Medical Examination Programme: Miners from across various small mining units in the neighbouring States are annually examined for fitness assessment at the directive of Director General of Mines Safety. Annually around 200 miners are examined under this programme.

First Aid Training Programme: OHS in NLC is also responsible for conducting First-Aid training to build competency in life saving at plant level, Basic Life Support to augment potential in pre-hospital emergency care and disaster preparedness to mobile skilled workers during mass casualty. OHS also undertakes Master Health Checkup for executives and non-executives from across all units as preventive health strategy,

Cardiac check up for employees above the age of 50 years and Cancer screening for early detection and management of breast and cervical cancer among women employees. Starting from 1996, over 11,000 employees/workers have been covered under First Aid training programme. During the year 2013-14 the following activities were undertaken by GH, NLC:—

- Free medical consultation with minimum antibiotic therapy and vitamins was extended in 92,912 instances to out-patients from the rural public. Another 25,620 patients were given emergency treatment for various causes.
- Community Health Screening for diabetes, hypertension and HIV covering 9,740 persons during the Annual Book Fair and Safety Week Celebration was carried out and counselled for behavioural change.
- > 12 medical camps were conducted in peripheral villages located in the area surrounding Neyveli Township in Cuddalore District. 5204 persons of these 12 villages were screened and given medical advice and medicines through the camps.
- From February 2013 onwards, NLC is providing nutritious food supplement to about 270 HIV affected children belonging to the Cuddalore District HIV Positive Society, Cuddalore.

Proposal for Establishment of Medical College at Talcher by Mahanadi Coalfields Limited (MCL)

3.13 The Committee have been apprised that there has been a public demand for long time for establishment of a Medical College at Talcher which has been supported by the State Government. In April 2008, during meeting of CMD-CIL with the Hon'ble Chief Minister of Odisha, the same was agreed upon. It was further announced in December 2008 by the Hon'ble Minister of Coal during his visit to Odisha. During subsequent visits the assurance had been given at different fora for establishment of a Medical College at Talcher. Government of Odisha agreed to get associated with the establishment of Medical College at Talcher on the request of CMD-MCL in July 2009. MCL Board in its 117th Board meeting in March 2010, gave 'in principle' approval for setting up a Medical College at Talcher. Furtherance to this, Mahanadi Medical Education Trust was registered under the Societies Act, 1860 in April 2010 with CMD-MCL as Chairperson of the said Trust. As a follow-up of the above decision, Expression of Interest was floated for preparation of DPR and detailed NIT for the construction of Medical College at Talcher on concept-to-commissioning basis. However, due to some inadequacies in the EoI the Agency could not be finalized. Application was made to Department of Health and Family Welfare, Government of Odisha for permission to establish a Medical College at Talcher. Actions were also taken for issuance of 'Essentiality Certificate' from Government of Odisha. Application for affiliation with Utkal University, Bhubaneswar was made. Also, it was decided to take action for upgradation of the existing 115-bedded MCL's Central Hospital (NSCH) to a 500-bedded hospital. However, when the actions were in full swing, it was informed that a minimum 20 Acres of land is required for the establishment of Medical College and it should be located adjacent to the hospital. A piece of land was identified for the establishment of the Medical College. However, show cause notice was issued by the Forest Department against MCL officials as the said land was forest land. In 2012, a meeting was convened by Government of Odisha to review the status of Medical College wherein it was decided that forest clearance should be taken for the forest land before any construction was started. Accordingly, application for diversion of forest land was made by MCL. Final forest clearance was received and the land was handed over in December 2014. During this time, since the land was already identified, action was taken for floating of EoI amongst public works organizations like CPWD, RITES, NBCC, etc. MCL Board approved constitution of a Board Sub-committee for finalizing the agency after evaluating their response against the EoI. Based on the responses received, presentations given, it was decided to award the job to NBCC. The Board approved the proposal for selection of NBCC for construction of Medical College and upgradation of NSCH to 500-bedded hospital. Meanwhile, Government of Odisha was pursuing for signing of MoU. This MoU was approved by Coal India Board in its 305th meeting held on 28th February, 2014. The decision of the CIL Board was as under After detail deliberations, Board accorded its approval for execution of MoU between Government of Odisha and MCL for establishing a Medical College and Hospital as a part of Corporate Social Responsibility as brought out in the agenda note. However, the Board advised to amend Clause 3a (v) of MoU as under:-

"The SECOND PARTY after completion of infrastructure shall run the Medical College on 'No Profit and No Loss Basis'. Hospital attached to the Medical College will be maintained by the Company. An MoU was signed on 3 March 2014 between CMD-MCL & Principal Secretary, Department of Health & Family Welfare, Government of Odisha for establishment the said Medical College.

Now, an agreement is going to be signed between MCL and NBCC for construction of the Medical College. It may be noted that prior financial commitments for projects under CSR as well as towards

construction of toilets under Swatchh Vidyalaya Abhiyana, substantial amount has been earmarked which has resulted paucity of MCL's CSR fund. Keeping in view of the availability of CSR budget *vis-a-vis* commitments made under CSR, necessary policy resolution is required for CSR spending beyond 2% of the average net profits of the Company (As per Companies Act, 2013).

On 15th July, 2015, Talcher Suraksha Manch have temporarily called off the Economic Blockade called from 14th July, 2015 demanding establishment of Medical college causing huge loss to MCL as well as public exchequer with expectations that a favourable action will be taken by the State Government and MCL authorities or else they will intensify the agitation after ten days."

CHAPTER IV

EDUCATION FACILITIES FOR INHABITANTS/WORKERS IN COAL/LIGNITE MINING AREAS

Coal India Limited (CIL) and its subsidiaries

According to the Ministry of Coal, the primary responsibility of providing educational facilities lies with the State Governments. However, the subsidiary companies of CIL have been providing financial assistance and infrastructure facilities to certain schools like DAV Public Schools, Kendriya Vidyalaya, Delhi Public School etc. and also providing occasional financial assistance to other recognized educational institutions. As a part of Corporate Social Responsibility (CSR) financial assistance by way of grant-in-aid/infrastructural facilities are also provided to certain privately managed schools by the subsidiary coal companies functioning in and around coalfield areas. There are 681 schools in and around the coalfields areas of CIL and its subsidiaries. The details are given below:—

	Total	681
4.	Other educational institutions (getting occasional assistance)	315
3.	Privately managed schools (ECL, BCCL & CCL)	288
2.	Project schools run on their own (given infrastructure only)	15
1.	Project schools fully financed	63

Total number of students studying in above schools are 74135.

4.2 The children from the peripheral villages and the wards of the contractor employees as well as employees of CIL and its subsidiaries are also studying in the above schools. During the year 2013-14:-

- An amount of Rs. 1,58,38,520/- has been provided to 11792 students who have been awarded Merit/General Scholarship.
- An amount of Rs. 1,36,71,428/- has been provided to 604 students who have got admission in Government Medical & Engineering Colleges as well as students of IITs and NITs are also benefited by way of reimbursement of their entire tuition fees and hostel charges.
- An amount of Rs. 51,000/- has been provided as Special Cash Award to 9 meritorious children of employees of CIL (Hqrs.), Kolkata, Desk Offices of subsidiary companies and Dankuni

Coal Complex @Rs. 7,000/- for 3 students who have secured 90% or above marks in the Class-XII Board level examination and Rs. 5000/- for 6 students who have secured 90% or above marks in the Class-X Board examination.

- CIL also provides infrastructural and periodical financial support to 330 Project school running under the jurisdiction of CIL and its subsidiaries.
- CIL has sanctioned an amount of Rs. 9647.97 lakhs as a grant to the schools including privately managed schools.

4.3 On being asked about the criteria for sanctioning grants by CIL to privately managed schools, the Ministry furnished the following information:—

"The grant-in-aid to privately managed schools functioning in ECL, BCCL and CCL was enhanced w.e.f. 1st April, 2011 and the enhanced rate of grant-in-aid are available to those schools with the following terms and conditions:—

- (1) If no Graduate teacher with B.T./B.Ed. qualification is available, grant-in-aid @Rs. 5000/- per teachers per month will be paid to the Managing Committee of the eligible Privately Managed Schools.
- (2) Grant-in-aid would be payable for the same number of teachers who were paid in 2010-11.
- (3) Possibility should be explored to provide infrastructure support to those schools who fulfil the condition of minimum 25% attendance and minimum 01 Graduate Teacher in the school.
- (4) Efforts should also be made by the concerned Managing Committee of the schools for amalgamation of the schools as per practicability to strengthen the school's infrastructure.
- (5) The payment of grant-in-aid may be restored in respect of those teachers who have withdrawn their cases filed by them in the Court of Law subject to submission of documentary evidence in this respect.
- (6) Teachers of such schools who were on roll during 2010-11 and still continuing will be given free Outdoor treatment in any Company's Hospital and a concessional rate will be charged for Indoor treatment, if required, in line with facilities made available to BPL citizen.

- (7) There must be minimum 25 Nos. of students in each class with minimum 75% attendance. Direction/order will be given to inspect Attendance Register of each schools by concurred welfare committee/sub-committee.
- (8) The schools getting grant-in-aid from the Government will not be eligible for the above package."

Private Schools Financed by CIL and its Subsidiaries

4.4 Regarding low salaries to teachers and other staff of Schools in CIL mine areas, the Committee had received a representation. In this regard, in a note dated 12.6.2015 furnished to the Committee, the Ministry of Coal had informed that Coal India and its subsidiary companies do not run any educational institution. Only financial assistance and grant-in-aid is provided to these schools. The school management committee manages its operations, apart from appointment and payment of salary to the teachers and staff. Prior to nationalization of coal industry, some private coal companies were running their own schools. The teachers in such schools were salaried employees of the private Companies. Apart from these schools, there were many other private schools operating in and around the mines. When private companies were nationalized, the CPSUs absorbed all the staff of the private companies including some teachers. Since none of the coal PSUs were running departmental schools, such teachers had to be utilized as clerical staff. This issue was finally addressed under N.C.W.A-III which was valid from 1.1.1983 to 31.12.1986 wherein it was decided that such absorbed teachers would be given clerical grade of pay. The NCWA-III was meant for the employees of coal PSUs and not for other teachers of school operating in the vicinity of coal mines. Colliery teachers were the original employees of the then Coal Companies who later on were absorbed in BCCL whereas the teachers of privately managed school have come into existence at a later date. The Ministry have further stated that there is no employer-employee relationship with the management of Privately Managed schools and CIL/subsidiaries companies which has been confirmed by the Hon'ble Jharkhand High Court, Ranchi vide its order dated 21.1.2004. The fact was further corroborated by Judgement of Hon'ble Supreme Court of India in Civil Appeal No. 6595, 6602-6603 and 6601 of 2005 dated 21.8.2007, that as there is no employer-employee relationship between Private Committee managed schools and Management of BCCL. Therefore, BCCL has no liability in respect of private committee managed schools. On representation of Shri Vinay Kumar Singh, KKSM, a meeting was convened on 17th November, 2008 at Ranchi where Chairman, CIL informed representatives of KKSM that in order to improve the standard of

education, conditions have been applied for payment of grant-in-aid at enhanced rate. He stressed the point that there is no employer-employee relationship between the Teacher of Privately managed schools and Management of Coal India, as such it was made clear that there is no scope of employment of these teachers in Coal Industry. Board of Directors of CIL in its 270th meeting enhanced grant-in-aid. The increased rate of grant-in-aid circulated *vide* Office Memorandum dated 23.6.2011 are as under:—

- @ Rs. 5000/- per Undergraduate Teacher without B.T./B.Ed. qualification per month.
- @ Rs. 5500/- per Graduate Teacher without B.T./B.Ed. qualification per month.
- @ Rs. 6500/- per Graduate Teacher with B.T. but without B.Ed. qualification per month.
- @ Rs. 7000/- per Graduate Teacher with B.Ed. qualification per month.

4.5 Asked about the other steps that have been taken by coal/ lignite companies to issue free books, school uniforms at least to students of primary classes to motivate contract workers/local inhabitants to send their wards to school, besides providing scholarship to meritorious children, the Ministry of Coal have informed the Committee as under:-

"Following steps are taken by different subsidiaries of CIL:

ECL: In our ECL command Area State Government has set up Primary Schools/Convent Schools in the vicinity of our Colliery/Unit/Area, wherein State Government is issuing free books, mid-day meals. In these schools wards of contract worker/local inhabitants are studying. However, ECL is contributing infrastructure support wherever there is a requirement from school managing committee of aided schools.

BCCL: The tuition fees in the Project and semi-Project schools are 50% of those charged to non-BCCL employees, whereas in the Private committee Managed Schools no fees are charged from students whether BCCL or Non-BCCL.

CCL: Besides providing grant-in-aid to privately managed schools in the command area of CCL and scholarships to CCL wards as per merit, no other facilities are provided directly to students of these schools by this department.

NCL: Procurement of plates, Glass & spoons for mid-day meals to the poor students of Government schools is under process.

WCL: Issue of free books, school uniforms etc. are the subject matter of local school management. The role of WCL is confined to sanction of grant only.

SECL: Local inhabitant/contract workers who are PAPs are given fee concession at par with Company employees. Further such SC/ ST & BPL persons are also provided free education under RTE act.

MCL: Reimbursement of tuition fee and hostel seat rent to the wards of non-executive employees who are studying Medical & Engg. degree in Government Institutions."

4.6 On being asked to state as to whether the initiative taken up by the Ministry/coal PSUs for provision of educational facilities to the workers/inhabitants of coal bearing areas have actually improved the literacy level of the beneficiaries or have improved their overall proficiency for better employment opportunities, the Ministry of Coal stated that CIL was not aware of any such data maintained to show the improvement of the literacy level of the beneficiaries or their overall proficiency for better employment opportunities on account of various initiatives taken up by subsidiaries of CIL. However, there had been remarkable improvement in literacy level and the overall proficiency of the workers/inhabitants of coal bearing areas which is reflected in the present performance in the various examination of reputed institutes and employment in different Government and private sector companies.

4.7 On being asked as to whether the educational facilities being given also include vocational education or skill development, the Ministry of Coal stated that in CIL, the educational facilities being given through the privately managed schools does not include vocational education or skill development. Efforts are being made to incorporate vocational education or skill development in some of these schools. Apart from this, various steps are being taken for vocational education and skill development by different subsidiary of CIL, some of which are furnished below:—

- i. Skill Development Centre for poor, needy and project affected person. This includes making apparel in collaboration with Apparel training and design Center.
- ii. Women Empowerment with training in Tailoring and other Village Industries product like Candle making, Food Processing, Silk screen painting, Phenyl and liquid soap making etc.
- iii. Drive for improvement of female literacy.
- iv. Skill Development training are also imparted through ITI in Electrical, Fabrication, Production & Manufacturing.

- v. Development of statutory manpower and critical category manpower.
- vi. Skill development of workforce in Computer and Simulator and motor driving training.
- vii. Fishery Training.
- viii. Plastic processing technology, testing & Quality control.
- ix. Training for security guard.

Neyveli Lignite Corporation Limited (NLC)

4.8 The Committee have apprised that Neyveli Lignite Corporation Limited is running 10 Schools through a common school committee in Neyveli Township, of which 2 are of Elementary level, 3 are of Middle level, 2 are of High and the remaining 3 are of Higher Secondary level. The present students' strength is 6501. More than 95% of the students studying in these schools are from the peripheral villages and the remaining are wards of contract employees, workers and others. During the year 2013-14:—

- NLC issued free school uniforms to all the students of the primary classes (1st std. to 5th std.) – this year 480 students (252 Boys + 228 Girls) benefitted at a cost of Rs. 3 lakhs.
- 18 school toppers among the girl students of Neyveli Schools were awarded Rs.10000 cash award + Merit certificates and a medal.
- NLC sponsors HINDI TEACHING for the willing students of NLC schools in which 400 students of class VI to IX standards have benefitted at the cost of Rs. 3.4 lakhs. Further in 2014-2015, 1025 students of class VI to IX standards have enrolled in Prathamik & Madhyamik courses and expected expenditure towards this would be Rs. 9.9 lakhs.
- NLC has imparted Motivational and Exam-Skills training in the year 2013-14 to 2910 girls and 2356 boys of X and XII Standards in Neyveli and 14 peripheral village schools.
- NLC provides infrastructural support and also periodical financial support to Rajeev Gandhi Education Society, Barsingsar for providing quality education and technical training to the children of villages around NLC's project-sites in addition to the Jawahar Education Society at Neyveli.

The establishment of an Industrial Training Institute in Barsingsar village was completed by NLC in the year 2012-13. NCVT approved courses in Horticulture and Electrician trades have commenced from October, 2012 and Fitter and Welder trades have commenced from October, 2013. During the year 2013-14, 167 students have been imparted Industrial/Technical Training in these trades.

4.9 Asked about the criteria for sanctioning grants to privately managed schools, the Ministry of Coal have stated that NLC is not sanctioning any grant to the privately managed schools.

4.10 On further being asked as to what other steps have been taken by Coal/Lignite Companies to issue free books, school uniforms at least to Students of primary classes to motivate contract workers/local inhabitants to send their wards to school besides providing scholarships to meritorious children, the Ministry of Coal stated that NLC Schools at Neyveli, Tamil Nadu are aided by Government of Tamil Nadu. Free Books and Uniforms are being provided by Government of Tamil Nadu itself. However at Barsingsar, Rajasthan, NLC issues free books, school uniforms to students of primary classes to motivate contract workers/ local inhabitants to send their wards to school every year.

4.11 On being asked as to whether the initiatives taken up by the Ministry/NLC Ltd. for the provision of educational facilities to the workers/inhabitants of coal bearing areas have actually improved the literacy level of the beneficiaries or have improved their overall proficiency for better employment opportunities. The Ministry of Coal in their written reply have furnished as under:—

"NLC is running 10 schools through a common school committee in Neyveli Township of which 2 are Elementary Schools (I to V Std.), 3 are Middle Schools (I to VIII Std.), 2 are High Schools (VI to X Std.) and the remaining 3 are Higher Secondary Schools (VI to XII Std.). These schools are being run with the aid of Tamil Nadu Government. The present student strength in these schools is 6515. More than 95% of the students studying in these schools are from the peripheral villages, wards of contract employees and the remaining are wards of NLC workers. NLC is also fully funding a Kendriya Vidyalaya School under Project Mode educating the wards of NLC employees, CISF personnel, Central and State Government employees and General Public. During 2014-15, the following activities were taken up:

NLC is sponsoring Bharat Scouts and Guides movement of Neyveli Scouts and Guides District. An amount of Rs. 4.09 lakhs has been spent towards activities like Camps and Uniforms.
- School Toppers among girl students of Neyveli Schools (comprising 5 High schools and Higher Secondary Schools run by NLC and 11 High schools and Higher Secondary Schools run by private management) were awarded Rs. 10,000/- cash award, medals and merit certificates. Under the above scheme, 18 girl students have been awarded for their performance in 2014 Public examinations. An amount of Rs. 2.06 lakhs have been spent.
- NLC sponsors HINDI TEACHING for the willing students of NLC schools in which 763 students of Class VI to IX std. were benefitted at a cost of Rs. 8.79 lakhs. 87.46% have passed the Prathmic exam and 82.61% have passed the Madhyamik exam which are being conducted by Dakshin Bharat Hindi Prachar Sabha.
- NLC has imparted motivational and skills development training to the students of 10th and 12th standards in 16 Neyveli schools and 14 peripheral village schools.
- NLC provides infrastructural support and periodical financial support for various activities like providing sports and games facilities, books, journals educational magazines, etc., to school libraries, periodical ethical awareness classes, Junior Red Cross Society at an expenditure of Rs. 73.45 lakhs.
- Special coaching class in the morning and evening are being conducted for 10th and 12th std. students to enable to score high marks in the public exams. Nutritional snacks are being served to enable them to keep themselves fit.
- NLC is conducting computer coaching classes in batches free of cost for the benefit of students.
- Under Swachh Mission regular upkeep of sanitation facilities is maintained in NLC schools.
- NLC provides infrastructural support and periodical financial support to Kendriya Vidyalaya School at an annual expenditure of Rs. 110.81 lakhs.
- In addition to 10 NLC Schools and Kendriya Vidyalayas, NLC has facilitated running of 3 Elementary Schools, 2 Middle Schools, 3 High Schools and 7 Higher Secondary Schools by Private Management.
- To enhance the teaching skills, training is being imparted to the teachers of NLC and Private schools.

Improvement in literacy level/overall proficiency of children in Neyveli:

- 61 students were selected for the prestigious IIT in the year 2014. This year 51 students have cleared the JEE (Advanced) examination. Similarly a lot of students are successfully getting admission in various professional institutions offering Engineering and Medical courses.
- A girl student of NLC School has secured third rank in the State in the subject of Draft Civil in 12th Standard Public Examination. One Student of a Private School has secured Overall First Rank in District Level 12th Standard Public Examination.
- The pass percentage is more than 90% in 10th and 12th standard public examinations. In particular, the pass percentage of the schools completely catering to the students of peripheral villages have shown 15% rise (From 63% to 78%) in pass percentage in public examinations in the last three years."

4.12 On being asked as to whether the education facilities being given also include vocational education or skill development, the Ministry of Coal replied in affirmative and furnished the following information:—

"NLC Schools are offering the following Vocational Education Courses at Higher Secondary School Level:

- General Mechanic.
- Electronic Equipment.
- Type Writing.
- Draftsman Civil.
- Auditing and Accounting.

An ITI has been established at Barsingsar, Rajasthan by Rajiv Gandhi Education Society under the aegis of NLC at an investment of Rs. 10.00 Cr. and is in operation since the year 2012. It provides technical education in Fitter, Electrician, Welder & Horticulture for the benefit of children and wards of project affected persons and the people of peripheral villages. It was further stated that Medical Checkups like Dental Screening are being conducted in NLC Schools. Safety awareness programmes covering Road safety, environment etc., are being conducted in NLC Schools."

PART II

OBSERVATIONS/RECOMMENDATIONS OF THE COMMITTEE

The Committee note that coal meets 52% of the primary commercial energy requirement of the country and increasing production of coal has become a national priority with the target set for achieving production of one billion tonnes by the year 2020. The Committee however note with concern that for miners, it is a dangerous and potentially lethal assignment fraught with occupational hazards such as traumatic injury hazards, ergonomic hazards and noise. The Committee observe that although substantial progress has been made in the control of occupational health hazards, there remain room for further risk reduction towards a total Zero tolerance for fatal accidents in Mines. Vigilance is also required to ensure exposure of coal dust and crystalline silica remain effectively controlled. Despite the best safety precautions, safety risk are associated with all forms of coal mining due to wide utilization of heavy machinery for coal excavation. Moreover, coal mining in deep underground mines involves a higher safety risk than coal mining in opencast pits primarily due to problem associated with mine ventilation and potential for mine collapse. Taking into consideration that in India, coal mining still remains a highly labour intensive field and coal miners/workers are generally from the poor and illiterate strata of the population, the Committee feel that the issues of safety, health and education facilities of coal miners/inhabitants of coal/ lignite areas assumes more significance. The Committee also observed that coal mining raises a number of environmental challenges including soil erosion, dust, noise and water pollution with consequent impacts on local bio-diversity. The Committee, therefore, desire that larger goals of higher productivity in the coal mining industry is harmonized with the overall sustainable goals of protection and improvement of lives of people working in coal mining areas. The Committee, therefore, recommend that the Government should go for a sustainable mining policy with commitment to safety, health and education facilities for these miners. The observations/ recommendations of the Committee based on the examination of the written and oral information/testimony by the Committee on various aspects of the issues on safety, health and education facilities of miners are contained in the succeeding paragraphs.

Need for review of governing statutes on safety in Coal Mines

2. The Committee observe that some of the statutes governing safety in Coal Mines viz. Mines Act, 1952; Electricity Act, 2003; Explosive Act, 1884; Employee Compensation Act, 2009; Factories Act, 1948; Indian Boiler Act, 1923, etc. were framed decades back in a totally different work atmosphere and therefore calls for an urgent holistic review based on the challenges being faced in carrying out the present day mining operations. In this context the Committee are happy to note that the Ministry of Labour and Employment (MoL & E) have proposed to amend the provisions of Mines Act, 1952 and bring out new Coal Mines Regulations, 2015 with a view to address modern day challenges. The Ministry have informed the Committee that the Mines Act (Amendment) Bill, 2011 and draft Coal Mines Regulations, 2015 have been prepared after due deliberations with all stakeholders and have been notified in the Gazette of India. The Committee appreciate the initiatives taken so far by the Government in reviewing the old statutes governing mines safety to cater to the present day needs. The Committee, therefore, recommend that comprehensive review of all the relevant statutes may be undertaken by the Ministry so that obsolete and redundant provisions may be weeded out and appropriate amendments, whenever necessary may be brought out in the statutes/Rules/ Regulations. The Committee further recommend that the entire exercise may be carried out in a time bound manner and the Committee may be apprised of the action taken in the matter.

Safety monitoring mechanism in CIL

3. The Committee note that an elaborate safety monitoring mechanism exists at different levels in CIL viz. Mine Level; Area Level; Head Quarter Level; CIL Head Quarter Level; and Ministerial/ National Level which has resulted in continued and sustained improvement in CIL's safety performance. It is evident from the fact that the trend of five yearly average fatalities of 196 in the years 1975-1979 in CIL has come down to 62 in the year 2010-2014 as also the five yearly average serious injuries in CIL from 1278 in the years 1975-1979 to 228 in the years 2010-2014. The Committee have been apprised of various actions being taken for improvement in safety of mines viz. continuous review of safety status of mines through the multi disciplinary Internal Safety Organization (ISO); issue of directives/guidelines on corrective measures for prevention of recurrence after detailed analysis of fatal accidents; preparation and implementation of risk assessment based Safety Management Plan (SMP) for every mine; mine safety audit by external independent agencies; technology upgradation for improving safety in mining operation; better strata management; prevention of spontaneous heating; fire and explosion in mines; mine safety inspections; safety R&D initiatives at CIL, Head Quarter level; prevention of accidents in Open Cast Mines; emergency response systems; safety awareness programme; etc. Statedly, new initiatives for adoption of a system approach for overall improvement of safety standards viz. adoption of globally established technique of WRAC (Workplace Risk Assessment and Control) compliant with Coal Mines Rules (CMR) 2011; uniform system of documentation of all mining operation activities; adoption of Risk Assessment based Safety Management in all mines of CIL, etc. are being put in place. The Committee, however, note with concern that during the last five years, the trend of fatalities in CIL showed only a marginal reduction from 62 in 2009 to 58 in 2013, while for serious injuries, from 290 in 2009, it increased to 308 in 2010 and came down to 178 in 2013. In this regard, the Committee need not emphasize that every single life is precious and all out efforts must be made to bring the fatality rate to zero on utmost priority basis. The Committee appreciate that laudable initiatives at par with global standards are being put in place in CIL Mines to further boost the safety parameters and standards in these mines. The Committee, however, at the same time desire that the reasons for each instance of fatality as well as serious injury that had occurred must be properly analyzed and appropriate remedial mechanism be accordingly devised to avoid recurrence of such circumstances to bring down the fatality rate as well as the trend of serious injuries. The Committee hope that the preventive measures being put into place as well as the new initiatives would translate into a zero tolerance level for fatalities as well as serious accidents in these mines. The Committee would like to be apprised of the tangible results gained from these initiatives and measures being put in place in CIL Mines.

Safety monitoring mechanism in Neyveli Lignite Corporation (NLC) Mines

4. The Committee note that in NLC Mines during the last ten years, the number of fatal accidents has come down from 6 in the year 2006-2007; to just one in the year 2013-14 and the serious injuries accidents reported from 10 in the year 2009-10 to 4 in the year 2013-14. The Committee also note that most of these accidents had occurred more on account of individual's fault rather than due to any system failure or unsafe conditions of mines or machinery. The Committee, therefore, feel that there is a heightened need for sensitization and awareness programmes for mine workers for

adherence to safety standards and such programmes are needed to be accorded top priority. At the same time, the Committee express their satisfaction that NLC have taken a number of steps to avoid accidents in Lignite Mines which include provision for personal protective equipments specific to job requirement; systematic in-depth accident analysis; accident counselling system to avoid recurrence and for behavioural transformation; area-wise responsibility for enforcement of safety in all mine operational/ maintenance activities; exhibition of code of safety practices at appropriate locations; inter unit safety assessments of every quarter; risk assessment and safety audit for mines by accredited external agencies once in two years; inculcation of safety awareness for all categories of employees including contract employees before deployment; and continuous monitoring of behavioural sense/attitude/ commitment of employees towards safety. The Committee expect that the NLC will further augment their safety initiatives so that the fatality figure comes down to zero. To this end, the Committee recommend that the NLC's ongoing initiatives for adherence to safety standards and also inculcation of safety awareness to all workers including contract workers be carried on with full vigour so that the overall target of zero tolerance for fatal accidents or serious accidents be achieved. The Committee may be apprised of the action taken in the matter.

Safety Monitoring Mechanism in Singareni Coalfields Company Limited (SCCL)

5. The Committee note that the highest number of fatalities in SCCL in the last five years stands at 12 during each of the years 2010, 2012 and 2013 with the highest number of serious accidents of 369 during the year 2013. The Committee have been apprised that the highest fatality rate per 3 lakh man shifts occurred in the year 2013 which stands at 0.24 while the highest serious injuries per 3 lakh man shifts stands at 7.43 during the same year. The Committee also note that a number of measures have been taken to improve the safety status in SCCL mines which inter-alia include gradual phasing out of hand sections to be replaced by Side Discharge Loaders (SDL) and Load Haul Dump (LHD); Strata Monitoring Cell; utilization of services of scientific institutions viz. Central Institute of Mining and Fuel Research (CIMFR), National Institute of Road Mechanism (NIRM) etc. for designing panels and strata Management System; critical analysis of accidents for subsequent action plan for prevention; mandatory safety clearance certificate and DGMS permission before depillaring panels; effective functioning of pit safety Committees; mandatory inspection before issue of safety clearance certificate; monsoon audit inspection; propagation of awareness amongst workers for safety; organization of monthly and quarterly Risk Management Committee meetings; night shift inspections at least once in a fortnight by mine managers to improve safety and discipline in the mine; compliance of recommendations of the 11th conference on safety (employer's responsibilities in contractor works); formulation of area level team for review and monitoring of safety management plans of mines; etc. The Committee express their happiness at such an elaborate safety mechanism being put into place by SCCL and hope that vigorous and strict adherence to all such safety measures would ensure significant reduction in the overall fatality rate as well as the number of serious accidents in the near future. The Committee, however, at the same time like to recommend that periodic inspections at the Mines level be made more stringent with provisions for mandatory follow up at the highest level and the instances of any kind of negligence or slackness either by Workers or Managers are needed to be reviewed seriously. The Committee would like to be apprised of action taken in the matter.

Need for functional connect amongst the various safety monitoring mechanism existing at all vertical and horizontal levels

6. The Committee note that apart from the statutory monitoring by Director General of Mines Safety (DGMS), the status of safety is also monitored by various Safety Committees existing at different levels viz. Mine Level; Area Level; Subsidiary Level; Company Level and Ministry Level. The Committee have been apprised that there exist a functional connect amongst these different safety monitoring mechanisms by means of interactions/discussions of their findings as well as recommendations made; evaluation of activities of various mine level safety bodies during co-ordination meetings; taking up of unresolved issues at the lower levels to higher levels for compliance; free horizontal and vertical communication between various safety monitoring bodies; etc. The Committee also note that safety monitoring reports of these bodies are circulated as minutes for compliance and action taken report/compliance reports are also prepared and submitted. Moreover, depending on the nature of issues, the timelines are also stipulated for speedy and effective implementation of the various safety recommendations. The Committee, however, desire that the Ministry should ensure that the existence of numerous safety monitoring mechanism at various levels should not result in duplicacy of efforts or becoming a hurdle in sorting out the problems or in the matter of fixing responsibility and

accountability. The Committee also recommends for strengthening of the existing co-ordination mechanism for ensuring a vibrant functional connect amongst all these monitoring bodies.

Safety Management Plan

7. The Committee note that one of the main functions of safety Committee is to prepare, review and implement Safety Management Plans (SMP) which are prepared at the unit level, reviewed by the Internal Safety Organization (ISO) at corporate level and subsequently approved by Director General of Mines Safety. The Committee further note that the review of SMP is done monthly by the Safety Committee at Mine Level; Quarterly by the Area Level; Half-yearly by the Subsidiary Level and Annually by the Company level. The Committee find that during the process of formulation for approval of the SMP. workers at the ground level are involved in identification of safety needs of the Mine and recommendation of the Safety Operating Procedure to minimize risks, while officials of ISO and DGMS are involved in its scrutiny and approval. While observing that effective formulation and implementation of SMP at each Mines is crucial for safety, the Committee recommend that SMP of each Mine be meticulously formulated and then implemented with total involvement of all stakeholders across the hierarchy so that the target of zero tolerance fatalities is achieved. The Committee would like to be apprised of the action taken in the matter.

Safety Inspection of Mines

8. The Committee find that the Mines Rules, 1955 stipulate for a monthly inspection of Mines with a view to assess various aspects like dangers in relation to mining operations such as condition of Roof and Sides, adequacy of supports, safety aspects in haulage and travelling roadways, ventilation, sealed off area, escape route, machinery etc., compliance to various statutory provisions, status of functioning of different safety systems installed/commissioned in the Mines; compliance to safety checklists prescribed; etc. Undoubtedly, a robust inspection is the *sine qua non* for effective implementation of safety monitoring mechanism, the Committee, desire that this important aspect should be given utmost priority and the findings and recommendations made by inspection teams be meticulously followed and implemented in letter and spirit.

Risk Assessment and Safety Audit

9. The Committee are happy to note that CIL have initiated Risk Management by adoption of the Globally Established Technique of Work Place Risk Assessment and Control (WRAC). With this mechanism in place, tangible benefits accrued therefrom inter-alia include sensitization of workers to identification of hazards and associated risks; need to adopt control measures for elimination and reduction of risks; enhancing ability of workers to perform their tasks safely and consequent reduction in the numbers of both fatal and serious accidents in last three years in CIL. As regards NLC, the Committee find that NLC carries out Risk Assessment and Safety Audit of Mines by deploying Accredited External Agencies once in two years, the major recommendations of which include preparation of SMP; Emergency preparedness; Plan/Pre monsoon Action Plan for every Mine; Certification for stipulated quality Norms; etc. and scrupulous action is taken on the recommendations made by such agency. The Committee, which appreciating the importance and significance of a comprehensive, dedicated and objective Risk assessment and safety audit, conducted periodically by an External Accredited Agency, desire that the system put in place at NLC be replicated in all other coal companies/PSUs so that absolute safety of workers/miners/inhabitants is ensured throughout. The Committee would like to be apprised of action taken in the matter.

Subsidence Problem

10. The Committee note that un-scientific, unsystematic and illegal mining are the primary causes of fires resulting into subsidence. Steps are being taken by Government/Coal PSUs to ensure implementation of the Master Plan for Jharia and Raniganj Coalfields dealing with fire, subsidence and rehabilitation and diversion of surface infrastructure. The Committee find that the Master Plan which was approved on 11.8.2009 with an estimated investment of Rs. 7112.11 crore for Jharia Coalfields and Rs. 2661.73 crore for Raniganj Coalfields, is being implemented by the Jharia Rehabilitation and Development Authority for Jharia Coalfields and Asansol Durgapur Development Authority for Raniganj Coalfields with fire survey being done by the National Remote Sensing Centre (NRSC), ISRO, Hyderabad since August, 2013 and overall monitoring by High Power Central Committee (HPCC) headed by Secretary (Coal). The Committee are happy to note that the initial surface fire in Jharia Coalfields that stood at 8.9 Sq. Km. have since been reduced to 2.18 Sq. Km. as in July, 2015. The Committee however, desire that the implementation of the Master Plan be further accelerated and enhanced so that the subsidence problem is rooted out completely. The Committee would like to be apprised of the progress made in the matter.

Compensation package policy for fatal and serious accident cases for regular as well as contract workers

11. The Committee note that the payment of compensation is governed by the Employees' Compensation (Amendment) Act, 2009. The Committee find that in CIL, a Special Relief Package of Rs. 5 Lakh is given to a departmental employee in addition to the amount payable under the Employees' Compensation Act and the company also release immediate payment for funeral expenses and transport etc. to the family of the deceased. Besides this, monetary benefits under Life Cover Scheme (LCS) of Rs. 1,12,800 w.e.f. 01.02.2012, ex-gratia amount of Rs. 84,600 in case of death or permanent total disablement; gratuity on the basis of length to service; encashment of Earned Leave and Payment of Pensions as per CMPS, 1998 are also provided to the deceased family. Further, there is provision for offer of employment to eligible kin of deceased departmental employee and provision for monetary compensation per month paid to family if there is no eligible person for employment. The Committee also observe that in case of serious bodily injury, due compensation under the Employees' Compensation (Amendment) Act, 2009 is paid to serious bodily injured person impaired with permanent disability after due assessment of the percentage of permanent disability by an approved Medical Board. An additional ex-gratia amount of Rs. 84,600/- (w.e.f. 01.02.2012) is also given in case of permanent total disablement resulting on account of accident out of and in course of employment for departmental employee. Besides salaries/ wages during period of absence and extensive medical treatment facilities are also provided either in Company's Hospital or any other referred Hospital during the injury period and beyond. As regards contract workers are concerned, the Committee find that compensation in case of fatal accidents and serious bodily injury while on duty is paid by the Contractor as per the provisions made under the Workmen Compensation Act, 2009. CIL as the Principal Employer ensure that payment of compensation to the next kin of the deceased contract worker is paid by the respective contractor. The Committee further find that in SCCL, similar compensation package and benefits exists with ex-gratia of Rs. 84,300/- and special ex-gratia of Rs. 5,00,000/- paid to regular employees while in case of contract employee, the offloading agencies are liable to pay with their payment ensured by the principal employer. The Committee are however, happy to note that in NLC, in the case of death of a contract workman due to accident, a family relief of Rs. 5,100/- per month is given vis-a-vis Rs. 8,500/- per month paid to a regular employee. The Committee feel that matter of death cases should be treated compassionately whether it is a contract or a regular employee.

Taking into consideration the rising cost of livelihood, the Committee recommend that the quantum of various compensation amounts being provided to the deceased to family/injured person are needed to be reviewed periodically. The Committee further recommend that the Government may explore the feasibility of extending a comprehensive Life and Health insurance cover to all workers including contract workers so that their lives and health are duly secured. Similarly, the Committee desire that the current compensation package for contract workers may also be periodically reviewed and the Coal Companies as well as the Principal Employer may consider to contribute in the compensation package. The Committee would also like to emphasize that all due compensation package are always released within the prescribed period whether it is for a departmental employee or a contractual worker. As regards redressal of grievances related to compensation/relief, the Committee desire that all such issues are taken up at the highest level and a robust and responsive mechanism be put in place for redressal of such grievances. The Committee may be apprised of the action taken in the matter.

Zero Harm Potential

12. The Committee note that a Roadmap has been prepared to achieve 'Zero Harm Potential (ZHP)' in CIL mine Areas. In the year 2010, a training programme was arranged by CIL on Safety in Mines, Testing and Research Station (SIMTARS) at Australia which is recognized as the best in the world to develop trainers with an objective to improve safety standards in Mines. The Committee have been apprised that the initiative is a continuous process with 1488 and 1341 executives already trained in the first and second phase of the training programme respectively. To achieve 'Zero Harm Potential' in mines, CIL has taken up a numbers of additional measures viz. implementation of SMPs and Take-5, an informal risk assessment tool before starting of any operation; up-gradation of knowledge to cope with technology change; Risk Management System for Project Planning Stage, Restructuring/Re-organization of relatively small Mines to bigger Mines for adoption of Mass Production Technology, acquisition of land for OCPs in one go so that operations in Mines can be done as per approved plan and all mining areas be permanently fenced; deployment of higher capacity equipments in OCPs for faster excavation; effective training and feedback system and weeding out of incompetent and physically unfit workman from operational activities, etc. The Committee appreciate the ongoing initiatives towards 'Zero Harm Potential' and hope that this target would be

achieved in a time bound manner. The Committee at the same time recommend that such training programmes must also be organized for non-executives also who are engaged in actual mining operations. The Committee also desire SCCL and NLC to also work out such training programmes for their executives as well as non-executives. The Committee would like to be apprised of the progress in the matter.

Safety Mechanism in Captive Mines/Private Mines

13. The Committee find that there have been negligible cases of fatalities and serious injuries in the mines operated by Captive Mines holders and Private Players as compared to the Public Sector Coal Companies during the years 2012, 2013 and 2014 respectively. The Committee note with appreciation that in the private sector coal mining companies namely Integrated Coal Mining Ltd. (ICML), Jindal Power Ltd. (JPL) and Monnet Ispat and Energy Ltd. (MIEL) there was not a single fatal accident reported in all these three years. This raises serious question mark over the safety policy being followed by public sector coal mining companies vis-a-vis captive mines holders and private players and the Committee feel that there is a need for serious introspection on the part of Public Sector Coal Companies and recommend the Government to seriously undertake a comparative study of the safety standards and good practices being followed by Captive Mines Holders and Private Players and issue requisite guidelines/orders for replicating them in the Public Sector Coal Companies also. The Committee may be apprised of the action taken in the matter.

Health facilities for inhabitants/workers in coal/lignite mining areas

14. The Committee note with concern that workers and inhabitants in the coal mining areas faces a number of major occupational health hazard caused due to sustained exposure to dust, vibration, noise, light, electricity, heat, pressure, machinery etc. Notably, other occupational hazards include chronic backache, chronic bronchitis, dermatitis and in OCMs deafness, vibrational syndrome, cataract due to poor light, etc. The Committee note that CIL and its subsidiaries have made available extensive medical facilities to the employees and their families through various medical establishments beginning from the dispensary level and going up to the central and apex hospitals in different parts of the coalfields. Such infrastructure includes 79 hospitals with 5709 beds, 418 dispensaries, 212 empanelled corporate hospitals and medical colleges, 589 ambulances, 1445 doctors including specialists and 3278 paramedical staff to provide medical services to CIL employees. Besides, 11 Ayurvedic dispensaries also run by CIL subsidiaries provide indigenous system of treatment to workers. The Committee have been given to understand that besides preventive healthcare for detection of occupational health diseases, workers are also provided with protective gears such as helmet, cap lamps, masks, boots etc. The Committee are happy to note that due to the initiatives taken up by the Ministry and Coal PSUs, the number of cases of pneumoconiosis has reportedly come down drastically in CIL areas in the recent years and continuous biological and environmental monitoring has resulted in better health conditions of coal mine workers. The Committee further note with satisfaction that modernization and expansion of medical facilities have been accorded priority in CIL areas with many modern gadgets and medical equipments provided and made available for workers/inhabitants in these areas. Similarly, NLC also provides healthcare facilities through its General Hospital with 355 beds to all inhabitants of the Neyveli township and its surrounding villages including comprehensive medical treatment to contract workers and their family members. Notably, the Occupational Health Services (OHS) under the Preventive Healthcare Programme in NLC is integrated with the overall hospital care delivery system of the company. Major components of Preventive Healthcare include Periodic Medical Examination (PME) of miners conducted once in 3 years for those in the age brackets of 45 years and above and once in 5 years in the case of those who are below 45 years of age; Metalliferous Mining Medical Examination Programme; First Aid Training Programme; Community Health Screening; etc. The Committee observe that health issues of workers as well as inhabitants should be given paramount importance. Taking into consideration the various occupational health hazards being faced in Coal Mines by Miners, the Committee desire that the Ministry should holistically review the working conditions in Mines with special aspects to hazardous conditions and come forth with a time bound robust mechanism for ensuring up to date technology upgradation and mechanization in the mining operations to reduce these hazards to the minimum possible level. The Committee further desire that workers must mandatorily be made to wear protective gears in Mines so that exposure to occupational hazards is minimized. The Committee also desire that a mechanism be put into place to ensure that workers mandatorily take periodic preventive health checkups with regular follow up which may include Periodical Medical Examination of all miners once in 3 years instead of 5 years in the case of miners who are below the age of 45 years. Also provision be made for facilitating immediate change of workplace where necessary for those workers who are affected with some particular kind of working conditions. The Committee also recommend that requisite healthcare provisions by way of giving advances, treatment as well as easy and hassle free settlement of cost of such treatments; etc. may also be incorporated. The Committee may be apprised of the action taken in the matter.

Establishment of Medical College in Talcher, Odisha

15. The Committee note that Mahanadi Coalfields Ltd. have given in principle approval for setting up of Medical College at Talcher, Odisha in association with the Government of Odisha. The Committee, however, note that no steps have yet been initiated towards establishment of the Medical College. The claim that upgradation of the existing 115 bedded MCLs Central Hospitals (NSCH) to a 500 bedded hospital is noted. While appreciating this laudable initiative taken by the MCL, the Committee express serious concern that in spite of long standing assurance for the establishment of the Medical College by MCL, it has not been materialized so far. The Committee desire that the Ministry of Coal, Coal India Ltd. and MCL in particular are to revert to the Committee about the concrete steps taken in setting up of the medical college at the earliest.

Education facilities for inhabitants/workers in coal/lignite mining areas

16. The Committee note that as part of Corporate Social Responsibility (CSR), the subsidiary companies of CIL have been providing financial assistance by way of grant-in-aid and infrastructure facilities to certain schools and other recognized educational institutions including some privately managed schools. In all there are 681 schools in and around coalfields areas of CIL and its subsidiaries with a total number of 74135 students. The Committee are happy to note that in the year 2013-14, CIL had sanctioned an amount of Rs. 1,58,38,520 to 11792 students as Merit/General Scholarships and Rs. 1,36,71,428/- to 604 students who were admitted in Government Medical and Engineering Colleges; an amount of Rs. 51,000/- as special cash award to meritorious children of employees of CIL, as well on other awards. Besides, CIL provided infrastructural and periodical financial support to 330 project schools and also sanctioned an amount of Rs. 9647.97 lakh as grant to schools including privately managed schools. The Committee further note that NLC also runs 10 schools through a Common School Committee in Neyveli Township with a total of 6501 students as of June, 2015. Besides, NLC issues free school uniforms to 480 students, cash awards to meritorious students; sponsors Hindi teaching in which 400 students have so far been benefited; gives infrastructural and periodical financial support; and had established an Industrial Training

Institution in Barsingsar village in Rajasthan. As a result of such initiatives, there has been remarkable improvement in literacy level and the overall proficiency of the workers/inhabitants of coal bearing areas which was reportedly reflected by their performance in various examinations of reputed institutes and also employment in different Government and private sector companies. The Committee note with appreciation that efforts are also being made to incorporate vocational education and skill development by CIL. Considering that education is key to upliftment and a better future, the Committee recommend that educational facilities extended to Coal and Lignite Mines workers and inhabitants of Coal/Lignite Mining areas are needed to be further augmented with special emphasis on imparting vocational education and skill development training so that the target of full literacy and enhancing capacity building for better prospects of employment could be achieved. The Committee further recommend that basic facilities be extended to poor students by way of provisions of mid-day meals; school uniforms; Text Books and requisite stationery items by the sponsoring Coal Companies. The Committee may be apprised of the action taken in the matter.

Private Schools Financed by CIL and its Subsidiaries

17. While observing that there is no employer-employee relationship between the teachers employed by the management of privately managed schools and CIL/Subsidiaries companies which has been confirmed by the Hon'ble Supreme Court Order dated 21st August, 2007, the Committee appreciate the enhanced rate of grants-in-aid of Rs. 5000/- per undergraduate teacher to Rs. 7000/- per graduate teacher with B. Ed. qualification per month being granted by the CIL. The Committee, however, desire that management of CIL should ensure that these privately managed collieries schools are imparting quality education to the children of miners and workmen of the collieries. The Committee also desire that the management of these privately managed schools which are getting grants-in-aids from CIL and its subsidiaries are implementing the wage structure for different categories of teachers as approved by the respective State Government/State Education Board.

New Delhi; <u>11 August, 2015</u> <u>20 Shravana, 1937 (Saka)</u> RAKESH SINGH, Chairperson, Standing Committee on Coal and Steel.

ANNEXURE I

MINUTES OF THE SITTING OF THE STANDING COMMITTEE ON COAL AND STEEL HELD ON 30th DECEMBER, 2014 IN COMMITTEE ROOM 'C', GROUND FLOOR, PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee sat from 1130 hrs. to 1330 hrs.

PRESENT

Shri Rakesh Singh - Chairperson

MEMBERS

Lok Sabha

- 2. Shri Shailesh Kumar
- 3. Shri Godam Nagesh
- 4. Shrimati Ranjit Ranjan
- 5. Dr. Ravindra Kumar Ray
- 6. Shri Janardan Singh "Sigriwal"
- 7. Shri Pashupati Nath Singh
- 8. Shri Sunil Kumar Singh
- 9. Shri Rama Kishore Singh
- 10. Shri Krupal Balaji Tumane

Rajya Sabha

- 11. Shri Ali Anwar Ansari
- 12. Shri B.K. Hariprasad
- 13. Shri Avinash Pande

Secretariat

<u> </u>	CI				
1.	Shri	Shiv	Singh	—	Joint Secretary

2. Shri Arvind Sharma Additional Director

WITNESSES

MINISTRY OF COAL AND ITS PSU's

1.	Shri Anil Swarup	Secretary
2.	Dr. A.K. Dubey	Addl. Secretary & Acting CMD, C

Addl. Secretary & Acting CMD, CIL

80

3.	Shri A.K. Bhalla	Joint Secretary
4.	Shri Shailesh Kumar Singh	Joint Secretary
5.	Shri Vivek Bhardwaj	Joint Secretary
6.	Dr. M.R. Anand	Economic Advisor
7.	Shri D.N. Prasad	Adivsor
8.	Shri R. Mohan Das	Director (P), CIL
9.	Shri A.K. Debnath	CMD, CMPDIL
10.	Shri Rakesh Sinha	CMD, ECL
11.	Shri Gopal Singh	CMD, CCL
12.	Shri R.R. Mishra	CMD, WCL
13.	Shri T.K. Nag	CMD, NCL
14.	Shri A.N. Sahay	CMD, MCL
15.	Shri Om Prakash	CMD, SECL
16.	Shri T.K. Lahiri	CMD, BCCL
17.	Shri B. Surender Mohan	CMD, NLC
18.	Shri S. Bhattacharya	CMD, SCCL

2. At the outset, the Chairperson, while welcoming the Secretary and other representatives of the Ministry of Coal and Coal PSUs to the sitting of the Committee convened in connection with examination of the subject, "Safety, health and education facilities for inhabitants/ workers in Coal/Lignite Mining areas", emphasized the crucial importance of maintenance of safety standards in Coal/Lignite Mines not only for the safety of work force but also for the economies of the companies. He further stressed the imperativeness of continuous and sustained efforts to ensure optimum safety standards and zero tolerance for fatal accidents in coal/lignite Mines. He also highlighted the importance of a robust and effective safety monitoring Mechanism for prevention of accidents and preparedness to handle any eventualities strengthend by periodic and systematic safety audits by Accredited External Agencies with mandatory follow up on findings thereof. The Chairperson further emphasised that issues pertaining to health and education facilities for inhabitants/workers in coal/lignite mining need to be accorded utmost priority.

3. Thereafter, the Secretary, Ministry of Coal briefed the Committee on the extant provisions on 'Safety, Health and Education Facilities for Inhabitants/Workers in Coal/Lignite Mining Areas' highlighting the major policy initiatives taken up by the Ministry. Subsequently, in separate visual presentation, the representatives of the Coal PSUs *viz.*, Coal India Ltd. (CIL), Singareni Collieries Company Ltd. (SCCL) and Neyveli Lignite Corporation (NLC) highlighted the status of safety, health and education facilities for inhabitants/workers in coal/lignite mining areas under their jurisdiction. The Committee were apprised about the major statutes governing mine safety; monitoring mechanism of safety status; trend of accident statistics; safety provisions and initiatives taken to improve safety in Mines. The representatives also briefed the Committee on the existing health and educational facilities for inhabitants/workers in Coal/Lignite Mining areas under their corresponding jurisdictions.

4. The Members then raised queries and sought clarifications from the representatives on various issues *viz*. identification of major hazards in mining operations and associated risks; average life span of workers deputed in coal mines; feasibility of provision of having own hospitals instead of referrals to other hospitals, provision of protective equipments and improvement of working conditions in Coal mines at par with international standards; training facilities of workers; effectiveness of the extant safety policy and monitoring of its implementation by the Internal Safety Organisation; efficacy of the ISOs in terms of adequacy of staff and techniques/technology; follow up on reports made by ISOs; roadmap towards achievement of zero tolerance of fatality rate of accidents in Coal mines, current status of phasing out of manual loading as per the recommendations of the 10th National Safety conference; time-frame for mechanised roof support for coverage of all existing underground mines; etc.

5. The Chairperson, while pointing out to the imperative need for bringing down the fatality rate of accidents in coal mines to zero, stressed on the urgent need to bring out a roadmap to achieve the objective of zero tolerance to such fatalities. He also directed the representatives of the Ministry of Coal to furnish written replies to the queries raised by the Members which could not be responded to.

A copy of verbatim proceedings of the sitting of the Committee has been kept on record.

The Committee then adjourned.

ANNEXURE II

MINUTES OF THE SITTING OF THE STANDING COMMITTEE ON COAL AND STEEL HELD ON 14th JULY, 2015 IN COMMITTEE ROOM 'E', BASEMENT, PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee sat from 1200 hrs. to 1500 hrs.

PRESENT

Shri Rakesh Singh - Chairperson

MEMBERS

Lok Sabha

- 2. Shri A. Arunmozhithevan
- 3. Smt. Jyoti Dhurve
- 4. Shri Faggan Singh Kulaste
- 5. Shri Shailesh Kumar
- 6. Dr. Banshilal Mahato
- 7. Smt. Riti Pathak
- 8. Smt. Ranjit Ranjan
- 9. Dr. Ravindra Kumar Ray
- 10. Shri Tamradhwaj Sahu
- 11. Shri Tathagata Satpathy
- 12. Shri Janardan Singh "Sigriwal"
- 13. Shri Pashupati Nath Singh
- 14. Shri Sunil Kumar Singh
- 15. Shri Sushil Kumar Singh
- 16. Shri Rama Kishore Singh
- 17. Shri Krupal Balaji Tumane

Rajya Sabha

- 18. Dr. Pradeep Kumar Balmuchu
- 19. Shri B.K. Hariprasad
- 20. Shri Jugul Kishore
- 21. Shri Avinash Pande
- 22. Shri Sanjay Raut

SECRETARIAT

1. Shri Shiv Singh	—	Joint Secretary
2. Shri Ajay Kumar Garg	_	Director
3. Shri Arvind Sharma	_	Additional Director
4. Ms. Miranda Ingudam	_	Under Secretary

WITNESSES

MINISTRY OF COAL AND ITS PSU's

1.	Shri Anil Swarup	Secretary
2.	Shri R.P. Gupta	Joint Secretary
3.	Shri D.N. Prasad	Adviser (JS rank)
4.	Shri Peeyush Kumar	Director
5.	Shri Sutirtha Bhattacharya	CMD, CIL
6.	Shri C.K. Dey	CMD, ECL
7.	Shri A.K. Debnath	CMD, CMPDIL
8.	Shri R.R. Mishra	CMD, WCL
9.	Shri A.N. Sahay	CMD, MCL
10.	Shri Om Prakash	CMD, SECL
11.	Shri T.K. Lahiri	CMD, BCCL
12.	Shri B. Surender Mohan	CMD, NLC
13.	Shri N. Sridhar	CMD, SCCL
14.	Shri P.K. Tiwari	Director, CCL

2. At the outset, the Chairperson, while welcoming the Secretary and other representatives of the Ministry of Coal and Coal PSUs to the sitting of the Committee convened for taking oral evidence of the representatives of the Ministry of Coal in connection with examination of the subject, "Safety, health and education facilities for inhabitants/ workers in Coal/Lignite Mining areas", emphasized the utmost priority to be accorded to the safety and health of workers deputed in Coal/ Lignite Mines. He further stressed the paramount need of a holistic review of the present system of safety monitoring mechanism through a revisit of the fundamental provisions made in various statutes pertaining to the issue. He also highlighted the importance of adopting and instilling more scientific and good practices of mines safety as well as globally established techniques such as Workplace Risk Assessment and Control (WRAC) which would undoubtedly help in achieving the target set for zero tolerance for fatal accidents in Mines. The Chairperson further emphasised that issues pertaining to health and education facilities for inhabitants/workers in coal/lignite mining were also equally important.

3. Thereafter, the Secretary, Ministry of Coal briefed the Committee on the extant provisions on 'Safety, Health and Education Facilities for Inhabitants/Workers in Coal/Lignite Mining Areas' highlighting the major policy initiatives taken up by the Ministry. Subsequently, in separate visual presentation, the representatives of the Coal PSUs viz., Coal India Ltd. (CIL), Singareni Collieries Company Ltd. (SCCL) and Neyveli Lignite Corporation (NLC) highlighted the status of safety, health and education facilities for inhabitants/workers in coal/lignite mining areas under their jurisdiction. The Committee were apprised about the major statutes governing safety in Coal Mines; Monitoring Authorities for safety in Coal Mines, effectiveness of Work Place Risk Assessment and Control (WRAC); formulation of Safety Management Plan (SMP) and review thereof; trend of accident statistics; Implementation of the Master Plan for Jharia and Raniganj Coalfields being monitored by High Powered Central Committee (HPCC) headed by Secretary(Coal). The representatives also briefed the Committee on the existing health and educational facilities for inhabitants/workers in Coal/Lignite Mining areas under their corresponding jurisdictions.

4. The Members then raised queries and sought clarifications from the representatives on various issues *viz.* zero tolerance to fatal accidents in Coal Mines; Evaluation of Hospitals under CIL; Need for Super-Speciality Hospitals; Training proportionate number of trainees for handling aspect of safety in proportion to total work force of nearly 3,70,000 workers statedly deputed in Coal Mines; Control of Air and Water Pollution *vis-a-vis* Health issues; Coal gasification for manufacturing fertilizer; Need for surprise visits to check upon safety and health of workers; management of schools funded by CIL and its subsidiaries etc.

5. The Chairperson, while pointing out to the imperative need for bringing down the fatality rate of accidents in coal mines to zero, stressed on the urgent need to achieve the objective of zero tolerance to such fatalities. He also directed the representatives of the Ministry of Coal to furnish written replies to the queries raised by the Members which could not be responded to.

A copy of verbatim proceedings of the sitting of the Committee has been kept on record.

The Committee then adjourned.

ANNEXURE III

MINUTES OF THE SITTING OF THE STANDING COMMITTEE ON COAL AND STEEL HELD ON 11 AUGUST, 2015 IN HON'BLE CHAIRPERSON'S CHAMBER, ROOM NO. '112', FIRST FLOOR, PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee sat from 1500 hrs. to 1700 hrs.

PRESENT

Shri Rakesh Singh - Chairperson

MEMBERS

Lok Sabha

- 2. Shri A. Arunmozhithevan
- 3. Shri Faggan Singh Kulaste
- 4. Shri Devji M. Patel
- 5. Shrimati Riti Pathak
- 6. Dr. Ravindra Kumar Ray
- 7. Shri Neiphiu Rio
- 8. Shri Tathagata Satpathy
- 9. Shri Janardan Singh "Sigriwal"
- 10. Shri Pashupati Nath Singh
- 11. Shri Sunil Kumar Singh

Rajya Sabha

- 12. Dr. Pradeep Kumar Balmuchu
- 13. Shri Md. Nadimul Haque
- 14. Shri B.K. Hariprasad
- 15. Shri Avinash Pande
- 16. Shri Sanjay Raut
- 17. Shri Nand Kumar Sai

Secretariat

- 1. Shri Shiv Singh Joint Secretary
- 2. Shri Ajay Kumar Garg Director
- 3. Ms. Miranda Ingudam Under Secretary

2. At the outset, Chairperson welcomed the Members to the sitting of the Committee.

3. The Committee thereafter took up for consideration the Draft Report on the subject, "Safety, health and education facilities for inhabitants/workers in Coal/Lignite Mining areas" pertaining to the Ministry of Coal.

4. The Committee adopted the Report without any changes/ modifications. The Committee then authorized the Chairperson to finalise the Report and present the same to both the Houses of Parliament.

The Committee then adjourned.