# AGENDA NOTE FOR 44<sup>TH</sup>MEETING OF THE STANDING COMMITTEE ON SAFETY IN COAL MINES

On

12<sup>th</sup> FEBRUARY 2020

AT

**NEW DELHI** 



# GOVERNMENT OF INDIA MINISTRY OF COAL

# 44<sup>th</sup>MEETING OF THE STANDING COMMITTEE ON SAFETY IN COAL MINES

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#### **In Memoriam**

STANDING COMMITTEE ON SAFETY IN COAL MINES DEEPLY MOURNS ON THE SAD DEMISE OF THE FOLLOWING BELOVED WORKERS MARTYR OF COAL/LIGNITE COMPANIES AND PAY HOMAGE TO ALL THOSE WHO SACRIFICED THEIR PRECIOUS LIVES FOR THE CAUSE OF THE NATION DURING THE PERIOD BETWEEN THE  $43^{RD}$  (21.08.2018) AND THE  $44^{TH}$  (12.02.2020) MEETINGS OF THE STANDING COMMITTEE ON SAFETY IN COAL MINES

#### 1. COAL INDIA LIMITED (CIL):

SI No	Victim's Name and Designation	Accident Date	Mine	Statutory Compensation	Special Relief	Employment
ECL						
1	Late Chandra ShekharGiri, Overman	07.10.18	Kottadih Colliery	612360	Paid	Son
2	Late KaleshwarMahato, MS Crew	07.10.18	Kottadih Colliery	570720	Paid	Son
3	Late Kapil Dushad, Trammer	04.02.19	Kottadih Colliery	570720	Paid	Son
4	Late Laxman Roy, Contractual Worker	09.02.19	Kalipahari OCP	542200	Paid	NE
5	Late Sapat Lal Manjhi, Face crew	21.03.19	Jhanjhra UG	556520	Paid	Son
6	Late Nitimay Kora, General Mazdoor	30.04.19	Satgram Project	815400	Paid	Wife
7	Late Sukanto Kora, Contractual worker	08.05.19	Central Kajora Colleiry	797600	Paid	NE
8	Late PrabhakarMallick, General Mazdoor	14.06.19	Kunustoria Colliery	885480	Paid	Wife
9	Late ApanKumhar, Mechanical Fitter Helper	11.08.19	KhasKajora Colliery	788240	Paid	Wife
10	Late UpendraMahanty, EP Fitter	22.01.20	Bonjemihari Colliery	Under process	Under process	Son
BCCL						
1	Late Ram Ratan Singh, Feeder Breaker Operator	26.12.18	Phularitand Colliery	556520	Paid	Son
2	Late Shahid Ansari, Contractual Worker	25.01.19	Amalgamated Block-II OCP	700000	Paid	NE
3	Late Manoj Kumar Bhuiya, Cableman	22.05.19	Mudidih Colliery	751600	Paid	Son
4	Late Dharam Das Mahto, General Mazdoor	12.09.19	AKWMC OCP	Under process	Paid	Wife
5	Late Baijnath Ram, Fitter	30.09.19	Rajapur OCP	556520	Paid	Son
6	Late RamashishPaswan, Contractual Worker	29.10.19	Bhagabandh UG Mine	Under process	Under process	NE
7	Late Sushil Kumar Sinha, Contractual Worker	12.12.19	NAKC OC	Under process	Under process	NE

SI No	Victim's Name and Designation	Accident Date	Mine	Statutory Compensation	Special Relief	Employment
CCL						
1	Late MunarikNonia, Contractual Worker	14.09.18	DhoriKhas Colliery	778560	Under process	NE
2	Late Lakhan Kumar Mahto, Contractual Dozer Operator	24.11.18	Amrapali OCP	890480	Paid	NE
3	Late Hemlal Kumar Trammer	20.12.18	DhoriKhas Colliery	677760	Paid	Wife
4	Late Bhagat Looseman	14.01.19	Bhurkunda B Colliery	498800	Paid	Son
5	Late Kishun Saw, Contractual Worker	23.02.19	Magadh OCP	788240	Paid	NE
NCL						
1	Late RamdayalGoswami, Contractual Tipper	28.09.18	Bina OCP	612360	Paid	NE
2	Late Ramayan Singh Contractual Tipper Operator	13.11.18	Nigahi OCP	450000	Paid	NE
3	Late Santosh Kumar Shah, Contractual worker	01.02.19	Nigahi OCP	852160	Paid	NE
4	Late Chhotelal Contractual worker	25.03.19	Bina OCP	873880	Paid	NE
WCL			<b>,</b>			<b>,</b>
1	Late Ravishankar, General Mazdoor	25.10.18	Nehariya UG Mine	831920	Paid	Wife
2	Late Ramprakash, LHD Operator	25.10.18	Nehariya UG Mine	677760	Paid	Life Roster
3	Late Rajesh, Mechanical Helper	25.10.18	Nehariya UG Mine	806640	Paid	Disputed case
4	Late Rafique, LHD Operator	25.10.18	Nehariya UG Mine	736680	Paid	Son
5	Late Ganesh Mahto, Sr. Manager (M)	11.06.19	Mungoli OCP	603680	Paid	Daughter
6	Late MadhaoSaduKopulwar, Driller	26.11.19	Mahakali Colliery	584800	Paid	Monthly payment in lieu of employment
SECL						
1	Late Vijay Kumar Ram Contractual Tipper	23.08.18	Kusmunda OCP	847160	Paid	NE
2	Late Dilip Kumar, Mechanical Fitter	10.09.18	Gevra OCP	612360	Paid	Under process
3	Late Kanhaiyalal Dresser	17.10.18	Jhiria UG Mine	484200	Paid	Son
4	Late Rajendra Prasad, Mining Sirdar	23.11.18	Kumda (N) 7&8 Incline UG Mine	556520	Paid	Son
5	Late Ajay Kumar Singh Blasting Crewman	23.11.18	Kumda (N) 7&8 Incline UG Mine	639200	Paid	Son

SI No	Victim's Name and Designation	Accident Date	Mine	Statutory Compensation	Special Relief	Employment
6	Late Narayan Prasad Dewangan, Sub. Engineer (X)	23.11.18	Kusmunda OCP	513320	Paid	Son
7	Late Ramadhar Yadav, Blasting Crewman	16.12.18	Bagdewa Colliery	806640	Sub-judice	Sub-judice
8	Late Ajay Kumar General Mazdoor	16.12.18	Bagdewa Colliery	797600	Paid	Wife
9	Late Laxmikant Prasad, Mining Sirdar	16.12.18	Bagdewa Colliery	725480	Paid	Wife
10	Late Dukhu Ram Haulage Khalasi	31.01.19	Singhali UG	589800	Paid	Son
11	Late Yadunath Singh EP Fitter	03.04.19	Amera OCP	665160	Paid	Son
12	Late Jeet Narayan Home Guard	27.04.19	Kusmunda OCP	806640	Paid	NE
13	Late Sudhir Kumar Shukla, Sr. Overman	08.08.19	Dhanpuri OCP	346112	Paid	Wife
14	Late Roop Narayan, UDM operator	19.08.19	Jhilimili UG	797600	Paid	Under process
15	Late Akhtar Hussain, Dresser	19.08.19	Jhilimili UG	484200	Paid	Under process
16	Late Naimish Kumar, Overman	29.08.19	Gare Palma IV/1 OCP	811640	Paid	Under process
MCL						
1	Late SanthaCharanBarik, Contractual Worker	24.08.18	Bharatpur OCP	702160	Paid	NE
2	Late GakulanandaKutuan, Shovel Operator	01.09.18	Garjanbahal OCP	768560	Paid	Wife
3	Late Rajdev Singh, Contractual Supervisor	03.09.18	Kulda OCP	702160	Paid	NE
4	Late BhubanNayak Contractual Worker	31.10.18	Lingaraj OCP	702160	Paid	NE
5	Late DinabandhuKanjee, General Mazdoor	08.11.18	HirakhandBundi a UG	527800	Paid	Son
6	Late Israfil Ansari, Contractual Tipper Operator	23.11.18	Kulda OCP	873880	Paid	NE
7	Late Kailash Ch. Naik, Mechanical Fitter	14.03.19	Balram OCP	625880	Paid	Dispute Case
8	Late Kailash Ch. Moharana, Pvt. Security Guard	28.05.19	Balram OCP	542240	Paid	NE
9	Late MituBhukta, Contractual worker	22.06.19	Bhubaneswari OCP	690080	Paid	NE
10	Late PapunBiswal Contractual worker	23.07.19	Bharatpur OCP	806640	Paid	NE

SI No	Victim's Name and Designation	Accident Date	Mine	Statutory Compensation	Special Relief	Employment
11	Late Ramesh Das Contractual worker	23.07.19	Bharatpur OCP	556520	Paid	NE
12	Late RajkishoreMohapatra, Contractual Worker	23.07.19	Bharatpur OCP	758240	Paid	NE
13	Late RasmiranjanBehera, Contractual worker	23.07.19	Bharatpur OCP	861120	Paid	NE
14	Late Sushanto Kumar Mahakhud, Contractual worker	31.08.19	Balram OCP	793240	Paid	NE
	Total Fatalities = 62					
NE: N	NE: Not Entitled					

#### 2. SINGARENI COLLIERIES COMPANY LIMITED (SCCL)

SI. No	Victim's Name and Designation	Accident Date	Mine	Statutory Compensation	Special Relief	Employment
Α	CONTRACT EMPLOYEES			1		
1	R. Sathiyamoorthi, Other operator, Contract workman	02.09.18	KOC II, YLD	Rs.7,83	,560/-	-
2	Ade Sai Kumar, Any Other, Contract workman	23.10.18	КНА ОСР, ВРА	Rs.6,50,000/-	Rs.5,00,000/-	Rs.18,50,000 In lieu of employment
3	BiyyaniPrabhakar, Any other, Contract workman	01.11.18	RCHP, KGM	Rs.9,00	,880/-	-
4	Durgam Krishna Swamy, Contract Workman HVM Driver	24.01.20	RKPOC, MMR	6,50,000	23,00,000/-	Will be Provided by Dott Services Pvt Ltd
В	SCCL EMPLOYEES					
5	Rayudu SatyanarayanaSupport Man.	26.12.18	KTK 1, BHP	Rs.5,70,720/-	Rs.5,00,000/- +90,000/-	Son-in-law
6	Elagam Raja Kumar, Electrician	08.01.19	RG OC III, RG II	Rs.5,70,720/-	Rs.5,00,000/- +90,000/-	Son-in-law
7	BandiRavinder, Shale pic/LMP BRK Mazdoor	04.02.19	RK 1A, MM	Rs.5,56,520/-	Rs.5,00,000/- +90,000/-	Son
8	PulipakaSammaiah, General Mazdoor	02.05.19	GDK 11, RG I Area	Rs.7,58,240/-	Rs.5,00,000/- +90,000/-	Wife
9	Sanigarapu Paul, Fitter	21.05.19	СНР, КНА ОСР, ВРА	Rs.5,56,520/-	Rs.5,00,000/- +90,000/-	Under process
10	KannavenaRamulu, Supportman	03.06.19	RK 5, SRP	Rs.5,70,720/-	Rs.5,00,000/- +90,000/-	Son
11	Pandilla Ramesh, EP Operator	10.11.19	RG OC3, RG2	Rs.6,12,360/-	Rs.5,00,000/- +90,000/-	Under Process
12	ChennaMallaiah, General Mazdoor	16.12.19	RK-6, SRP	Rs.4,84,200/-	Rs.5,00,000/- +90,000/-	Under Process

13	GampallaDilip,	26.12.19	ALP, RG3	Rs.8,23,000/-	 Under Process
	Senior Under Manager				

#### 3. NLC INDIA LIMITED (NLCIL)

SI. No	Victim's Name and Designation	Accident Date	Mine	Statutory Compensation	Special Relief	Employment
1	Late K. Rasalingam,Dy.General Manager/Mechanical	30.01.19	Lignite Mine IA	Rs. 4,84,200/-	Rs. 13,63,800	Daughter
2	LateDalpat Singh, Dumper Operator (Contract workman)	04.06.19	Barsingsar Lignite Mine	Rs. 7,80,000/-	Rs. 5,00,000	

# Confirmation of the minutes of the 43<sup>rd</sup> meeting of Standing Committee on Safety in Coal Mines under the Chairmanship of Hon'ble Minister of Coal held on 21.8.2018

The 43<sup>rd</sup> meeting of the Standing Committee on Safety in Coal Mines was held on 21<sup>st</sup> August 2018 in New Delhi under the Chairmanship of the Hon'ble Minister Shri Piyush Goyal, Minister of Railways & Coal.

- 2. The list of participants is enclosed at **Annexure-I**.
- 3. At the Outset, Chairman and members of the committee paid homage and observed two minutes silence in the memory of those who laid down their lives in discharge of their duties in Coal Mining Industry since the last meeting of the Standing Committee on Safety in Coal Mines.
- 4. After the formal welcome, Secretary (Coal) in his opening remark highlighted the importance of safety in coal mining industry and desired that we should strive towards Zero Accident scenario in coal mining industry.
- 5. Project Adviser, Ministry of Coal (MOC) mentioned that no written comments were received from any members on the minutes of 43rdMeeting held on 21.8.2018. Thereafter, the minutes of the 43<sup>rd</sup>meeting of the Standing Committee on Safety in Coal Mines held on 21.8.2018 were confirmed unanimously.
- 6. Project Adviser, MOC made a brief power point presentation (PPT) highlighting initiatives taken to improve safety in coal mines.
- 7. After the presentation, the following issues were highlighted by the members of the committee:

#### 1) Maintenance and repairing of company quarters –

- i. Dr. B K Rai pointed out about the dilapidated conditions of employees' quarters in CIL as a whole and WCL in particular.
- ii. CMDs of all subsidiaries of CIL informed that repairing of bulk of the quarters has already been done and the balance will be repaired by March 2019.

#### **Action: All CMDs of CIL**

#### 2) Security issues of women employees and deployment of women employees in UG mines:

- i. Dr. B K Rai pointed out laxities in ensuring safety and security of women employees citing the recent inhuman incidence of Gokul OC of WCL.
- ii. Shri Nathulal Pandey alleged that non-compliance of relevant provision of the Mines Rules-1955 regarding separate toilets for women employees has resulted into the recent shocking incidence at Gokul OC of WCL. He further demanded that best treatment should be provided to the said victim.
- iii. CMD, WCL appraised that separate toilet for women employee, as per requirement of the Mine Rules, has already been provided at Gokul OCP. He also informed that culprits were arrested by Local Police.
- iv. Shri Nathulal Pandey expressed his reservations regarding permitting women employees in underground mines and urged that DGMS should carefully look into safety and security aspects of deployment of women in mines before taking any decision in this regard.
- v. Shri Manas Mukherjee, representative CITU supported the proposal of DGMS for permitting deployment of women employee in UG coal mines. He opined that it is a welcome move towards empowerment of women in the country. He said that coal companies should provide safe and secure environment for deployment of women in underground coal mines.

#### 3) Distribution of quality Mining shoes and gumboots:

- i. Dr. B K Rai pointed out shortages of mining shoes and gumboots in all subsidiaries of CIL. He said that quality of mining shoes and gumboots should be improved.
- ii. Shri Surender Kumar Pandey highlighted the shortage of Gumboot in all subsidiaries of CIL particularly in SECL and WCL.
- iii. CMDs of all subsidiaries of CIL informed that mining shoes and gumboots are being procured regularly through proper tendering process.

Action: All CMDs of CIL/SCCL/NLCIL

#### 4) Utilization of Safety Budget:

Shri Surender Kumar Pandey, Representative of BMS, pointed out that only 64% of earmarked budget for safety has been utilized by subsidiaries of CIL in financial year 2017-18 and in 2018-19, up to 1<sup>st</sup> quarter, utilization is only

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Action: DG, DGMS

13.5%. NLCIL has failed to utilize any money allocated under capital head of safety budget. He desired that the utilization of safety budget should be expedited.

Action: All CMDs of CIL/SCCL/NLCIL

#### 5) Strata Control Management:

- i. Shri Surender Kumar Pandey pointed out that anchorage testing machine (30-Tonne capacity) is required for accurate anchorage testing of resin capsules based roof bolts but most of UG mines of CIL are using under capacity (12-Tonne capacity) anchorage testing machine for testing resin roof bolts. He further said that there is no system of surveying off of Universal Drilling Machine (UDM) and other UG machineries in CIL. He said that RMR of roof strata is not being correctly determined as a result faulty SSRs are being framed. He desired that all strata control cells should function properly.
- ii. Shri Surender Kumar Pandey pointed out that, even after clear cut directives of National Safety Conference, the practice of manual drilling is still continuing in most of UG mines of CIL.

Action: All CMDs of CIL/SCCL/NLCIL

#### 6) Man Riding System:

ShriSurender Kumar Pandey said that only 38 Man Riding Systems are in operation in the UG mines of CIL and 14 nos. are under process of installation. He desired that such system should be installed in all UG mines having long and arduous travel.

Action: All CMDs of CIL/SCCL/NLCIL

#### 7) Filling of fly ash in mines:

- i. Shri Surender Kumar Pandey objected to the decision of the MOEF&CC regarding dumping of fly ash in opencast (OC) mines, which is detrimental to mine safety, and desired that the circular issued by MOEF&CC should be withdrawn in view of serious safety ramification.
- ii. Secretary (Coal) informed that MOC has already taken up this matter with MOEF&CC.

Action: Project Adviser, MoC

#### 8) Medical Infrastructures:

- i. Shri Surender Kumar Pandey desired that infrastructure of IME / PME centres should be improved.
- ii. Shri Nathulal Pandey desired that infrastructural facilities of CIL's hospital should be improved. He further desired that dental chair, wherever required, should be procured and the rate contract for purchasing the generic medicines should be expedited by subsidiaries of CIL.
- iii. Shri C J Joseph, Representative of HMS desired that at least one fully equipped ambulance should be provided in each area of CIL to cater to medical emergency.
- iv. Shri Manas Mukherjee, representative CITU desired that Annual Maintenance Contract (AMC) of Medical Equipment in all subsidiaries should be expedited. He also desired that adequate arrangement (i.e. 300mA X-Ray m/c & ILO Standard Radiographs) should be made available in all IME / PME centers. He further requested that one bipartite committee should be constituted with Trade Unions / Worker Representatives to oversee the functioning of hospitals of subsidiaries of CIL.
- v. Director (Personnel), MCL informed that one 500 beds hospital has already been constructed by MCL. The same will be inaugurated after obtaining due recognition from Medical Council of India / Health Ministry of Govt. of India and requisite permission from Odisha Government.
- vi. CMD, SCCL apprised that 10 new ambulances fully equipped with latest equipment are catering to the medical needs in SCCL.
- vii. CMD, NLCIL informed that company has three fully equipped lifesaving ambulance facilities for the purpose.

Action: CMD & D (P) of CIL/SCCL/NLCIL

#### 9) Medical personnel:

- i. Shri Nathulal Pandey said that appointment of doctors as per recommendations of 42nd Standing Committee has not been done by CIL. He desired that process of appointment of doctors should be expedited.
- ii. Shri Manas Mukherjee pointed out that shortage of paramedical staffs in different subsidiaries of CIL has not been filled up.
- iii. Director (P&IR), CIL informed that for the recruitment of 528 (Including 176 GDMOs) medical executives, advertisement was published in leading newspapers and 4474 numbers of applications have been received. Interview of candidates will be started soon for appointment of doctors in different subsidiaries of CIL.

Action: D (P) of CIL/SCCL/NLCIL

#### 10) Retirement age of technocrat of mining discipline:

Shri Nathulal Pandey opined that in view of projected target of coal production from CPSUs, experienced

technocrats are required. He desired that retirement age of technocrats of mining discipline may be enhanced, subject to medical fitness, for sake of the sustained and continuous growth of the industry. He cited the provisions of Regulation 25 of Coal Mines Regulations 2017 wherein the validity of Mine Manager and Statutory official certificates has been extended up to age of 70 years subject to medical fitness and approval by DGMS.

Action: CMD & D (P) of CIL/SCCL/NLCIL and DG, DGMS

#### 11) Promotion of departmental candidates to statutory post:

- i. Shri Nathulal Pandey desired that departmental candidates having requisite statutory qualification should be promoted to vacant statutory post so that their experience can be gainfully utilized.
- ii. Shri Manas Mukherjee desired that talented persons should be appointed to the post of statutory position so that company gets best of the available talent in the country. He further suggested that an Institute of International Standard may be established by CIL to develop manpower with appropriate skill and expertise to cater to specific needs of coal industry of the country.

Action: D (P) of CIL/SCCL/NLCIL

### 12) Payment of additional ex-gratia of Rs. 5 lakh to the dependent of deceased contractual employees and Under payment of contractual employees:

- i. Shri Nathulal Pandey desired that system of payment of additional ex-gratia of Rs. 5 lakh to the dependent of deceased contractual employees as per directive of Hon'ble Minister during 42<sup>nd</sup> meeting of Standing Committee on safety in coal mines should be implemented.
- ii. Shri Manas Mukherjee desired that payment of additional ex-gratia of Rs. 5 lakh to the dependent of deceased contractual employees as per directive of Hon'ble Minister should be started.
- iii. Shri Nathulal Pandey said that most of the contractual workmen get less payment than the amount which was decided by the high powered committee.
- iv. Hon'ble Minister advised that CIL, as a Principal Employer, should ensure that the minimum wage to all contractual workmen is paid as per the recommendations of high powered committee.

Action: D (P) of CIL/SCCL/NLCIL

#### 13) Scientific Study of OC mines as per Coal Mine Regulations 2017:

Shri C J Joseph pointed out lack of interaction between academia and coal industry. As a result, academicians, engaged in scientific studies, have failed to understand the actual need of the industry. He desired that CMPDI, having extensive and adequate experience in effective planning of mines in India, may be allowed to conduct scientific studies and DGMS should acknowledged the same. He desired that Ministry should issue directive in this context.

Action: DG DGMS and CMD CIL/SCCL/NLCIL

#### 14) Dust Control & National Dust Prevention Committee (NDPC) meeting:

- i. Shri C J Joseph desired that meeting of NDPC a sub-committee constituted under CIL Safety Board to address issues related to dust in coalfields, should be held at the earliest.
- ii. Shri Manas Mukherjee said that mist type water sprinkling arrangement is not functioning properly as filtered water is not used and as a result nozzle get chocked over a period of time.
- iii. Director (Technical), CIL and Chairman, NDPC announced that next meeting of NDPC will be held in the first week of September 2018.

Action: D (T), CIL

#### 15) Study on effect of diesel particulate matter (DPM) in the ambient mine environment:

- i. Shri C J Joseph pointed out that DPM is far more polluting than coal dust and can be detrimental to health of employees working in OC mines. No study except one attempt in WCL has been conducted so far to find out adverse health effect of DPM in OC mines.
- i. CMD, CMPDI apprised that air monitoring in mines is being done on a regular basis in compliance to the MoEF&CC guidelines. He further suggested a study may be taken up through a recognised agency to study the effect of diesel particulate matter in the ambient mine environment.

Action: CMD of CIL/SCCL/NLCIL

#### 16) Blast free coal mining:

Shri C J Joseph emphasized on increasing use of blast free mining technology for enhancing safety and production. He said that new mines are progressively designed with advanced mining technology but he desired proper scheme should be prepared for existing mines also.

#### 17) Amendment of Mine Vocational Training Rules (MVTR) – 1966:

Shri C J Joseph said that existing MVTR-1966 is redundant in today's context and desired that the existing Mine Vocational Training Rules (MVTR) – 1966 should be amended to accommodate changes in mining technology and methods.

Action: DG, DGMS

#### 18) Amendment of Mine Rescue Rules (MRR) - 1985:

Shri C J Joseph pointed out the inadequacies in existing MRR-1985, which does not have any provision for rescue & recovery operation for dealing with emergency situation in OC mines. He desired DGMS should take initiative to amend the existing MRR-1985 for dealing with emergency in OC mines.

Action: DG, DGMS

#### 19) Authority of Mine Manager affecting safety:

- i. Shri C J Joseph mentioned about diminishing of stature of mine Manager, who is key person for ensuring mine safety; in many cases Manager of the mine has become junior to some of the executives of other disciplines posted in mines. This is because of delay in promotion of mining executives in E6 grade. It was desired that CIL should take appropriate actions in this regard.
- ii. Dr. V.P. Sinha, President IMMA also mentioned that there is problem in promotion of E6 executives in CIL.

Action: CMD & D (P) of CIL

#### 20) Status of competent persons:

i. Shri C J Joseph said that there are huge shortages of competent persons, other than competent statutory supervisors, in most of CIL's mines. He desired that shortages should be analysed in light of requirement of recent Coal Mine Regulations 2017 for sake of mine safety and improving productivity.

Action: D (P) of CIL/SCCL/NLCIL

ii. Dr. Vinod P. Sinha desired that all subsidiaries should allow UG trainings to enable candidates to appear in statutory examinations conducted by DGMS.

Action: D (T) CIL

#### 21) Ratification of recommendations of ILO-176:

- i. Shri C J Joseph said that the recommendations of **ILO convention 176** which is recognised by 33 countries of the World are yet to be ratified by the Govt. of India. These recommendations are still relevant for workmen safety and health. He desired that the Govt. of India should ratify the **ILO convention 176**.
- ii. Shri Manas Mukherjee desired that the Govt. of India should ratify the recommendations of ILO-176 for ensuring protection of workers occupational health and safety.

Action: DG, DGMS

#### 22) Area Level Tripartite Safety Committee (TSC) in ECL:

ShriManas Mukherjee informed that area level Tripartite Safety Committee (TSC) has not been held in ECL since long. He desired that area level Tripartite Safety Committee (TSC) should be regularly held in ECL. CMD, ECL assured that all meetings will be held as per schedule.

**Action: CMD ECL** 

#### 23) Compulsory Bio-metric attendance &training of Contractor Workers:

- i. All subsidiaries were directed that mandatory bio-metric attendance for all contractual employees should be ensured by 30<sup>th</sup> Sep-2018 and it should be included in NITs.
- ii. Dr. Vinod P. Sinha desired that proper training should be imparted to contractual employees with special reference to out-sourcing to reduce mine accidents.

Action: D (P) of CIL/SCCL/NLCIL

#### 24) Increase in coal production with safety in mines of Tata-Steel:

- i. Representative of Tata Steel informed that Tata-Steel (TSL) is producing about 7.5 Million Tonne (Mt) of Coal (1.5 Mt from UG and 6.0 Mt from OC) with adequate safety. He informed that Tata-Steel has introduced highwall mining and Training Simulators in their mines. Tata-Steel has planned to produce 10 Mt coal from OC mine and introduce CM technology in UG mines in coming years.
- ii. Hon'ble Minister advised that Tata-Steel should take all steps to ensure mine safety.

Action: Head of Mining, Tata Steel (TSL)

#### 25) Proposal of using of CNG based tipper & dumper in SASAN, OCP, Reliance Power:

Representative of Sasan OCP of M/s Reliance Power Limited informed that the Mine Management has planned to introduce CNG in place of diesel.

#### 8. Concluding remarks/ directions by the Hon'ble Minister:

i. Visit of Pvt. Coal Mines by Standing Committee on safety in coal mines: Hon'ble Minister suggested that all Trade Union (TU) representatives of the Standing Committee along with Director (Technical) of all subsidiaries of CIL, SCCL and Officials from MOC should separately identify and inspect better operating mines, if any, in private sector. He advised that good practices relating to safety should be disseminated to all the mines.

Action: CMD &D(T) of CIL/SCCL/NLCIL

ii. **Standardization of specification for mining shoes and gumboots**: In view of the issue raised at Para-3, he instructed that a committee may be constituted by MOC with representatives of CIL, SCCL & NLC for finalizing the specifications for procurement of good quality of mining shoes and gumboots.

Action: CMD &D(T) of CIL/SCCL/NLCIL

iii. **Provision of Ambulance with all life-saving apparatus**: In view of the issue raised at Para-8(iii), he instructed that at least one fully equipped ambulance with all life-saving apparatus, in working condition, should be provided in each operating area of subsidiary of CIL.

Action: D(P) of CIL/SCCL/NLCIL

iv. Lung Function Test (LFT) facilities in IME / PME centers: In view of the issue raised at Para-8, he advised that all IME / PME centers of subsidiaries of CIL should be equipped with Lung Function Test (LFT) facilities.

Action: D(P) of CIL/SCCL/NLCIL

v. Payment of additional ex-gratia of Rs. 5 lakh to the dependent of deceased contractual employees: In view of the issue raised at Para-12, he desired that Board of Directors of CIL should consider the proposal for payment of additional ex-gratia of Rs. 5 lakh to the dependent of deceased contractual employees. He suggested that suitable modality, in this context, should be fixed so that payment of additional ex-gratia of Rs. 5 lakh may be given to the dependent of deceased contractual employees at the earliest.

Action: CMD &D(P) of CIL/SCCL/NLCIL

vi. **Security of women employees deployed at mines**: In view of the issue raised at Para-2, he advised that the victim of deplorable incident at Gokul OCP of WCL should be provided best medical treatment anywhere in the country. He further desired that strict legal action be pursued against the culprits. He also desired that separate toilets for women should be constructed as per requirement of statutes.

Action: CMD &D(P) of CIL/SCCL/NLCIL

vii. **Audit of Toilets constructed during Swatchh Bharat Programme by CPSUs**: He desired that complete Audit of Toilets constructed during Swatchh Bharat Programme by CPSUs may be done.

Action: D (P) of CIL/SCCL/NLCIL

- viii. Repairing of Quarter for employees & proposal for extending help for construction of self financed house:
  - i. In view of the issue raised at Para-1, Hon'ble Minister directed that all quarters should be thoroughly repaired within six months. D(P), CIL and D(P)s of subsidiaries would be personally held responsible for any deficiency in this regard.
  - i. He further suggested that all employees may be encouraged to avail home loan and subsidies under existing Government Schemes so that they can have their own home.

Action: D (P) of CIL/SCCL/NLCIL

9. Meeting ended with the vote of thanks to the Chair.

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# Action Taken Report (ATR) on the Recommendations of the 43<sup>rd</sup> meeting of Standing Committee on Safety in Coal Mines held on 21.8.2018

SN	Recommendations	Action Taken
1	Recommendations  Maintenance and repairing of company quarters  i) Dr. B K Rai pointed out about the dilapidated conditions of employees' quarters in CIL as a whole and WCL in particular.  ii) CMDs of all subsidiaries of CIL informed that repairing of bulk of the quarters has already been done and the balance will be repaired by March 2019.  Action: All CMDs of CIL	1. CIL: Annual maintenance and repairing of company quarters as per requirement is in progress and is being review every fortnight. The repairs of all identified quarters are targeted to be completed by March, 2020.  As on 25-01-2020, repairs of 87.74% identified quarters are complete and 12.26% are going on. The rest are likely to be completed by March, 2020.  2. SCCL:Annual maintenance and repairing of company quarters as per requirement is in progress and is being review every fortnight. The repairs of all identified quarters are targeted to be completed by March, 2020.
		As on 25-01-2020, repairs of 87.74% identified quarters are complete and 12.26% are going on. The rest are likely to be completed by March, 2020.  3. NLCIL: Not applicable.  4. Odisha Coal & Power (OCPL):Maintenance & repairing of company quarter:  Being a greenfield project, residential facilities have not been created at site. However, a residential complex having capacity of 122 nos. quarters with all facilities is under construction.  5. DVC: There is provision for regular maintenance/ repairing of quarters at DVC Bermo Mines.
2	Security issues of women employees and deployment of women employees in UG mines. Action: DG, DGMS	<b>DGMS:</b> Safety and security is a law and order issue and beyond the purview of Directorate General of Mines Safety (DGMS).
	(i) Dr. B K Rai pointed out laxities in ensuring safety and security of women employees citing the recent inhuman incidence of Gokul OC of WCL.	Directorate General of Mines Safety has been issuing circulars from time to time for its effective implementation at various Clauses/ Sections of the Mines Act, 1952
	(ii) Shri Nathulal Pandey alleged that non- compliance of relevant provision of the Mines Rules-1955 regarding separate toilets for women employees has resulted into the recent shocking incidence at Gokul OC of WCL.	In respect of WCL, necessary directions were issued to Mine management for violation of Rule 33 of the Mines Rules, 1955.  To this effect, Mine Management has informed DGMS vide their letter No.6808 dated 17.10.2018 that they have made necessary compliance in the following manner:

- (iii) CMD, WCL appraised that separate toilet for women employee, as per requirement of the Mine Rules, has already been provided at Gokul OCP. He also informed that culprits were arrested by Local Police
- (iv) Shri Nathulal Pandey expressed his reservations regarding permitting women employees in underground mines and urged that DGMS should carefully look into safety and security aspects of deployment of women in mines before taking any decision in this regard.
- (v) Shri Manas Mukherjee, representative CITUsupported the proposal of DGMS for permitting deployment of women employee in UG coal mines. He opined that it is a welcome move towards empowerment of women in the country. He said that coal companies should provide safe and secure environment for deployment of women in underground coal mines.

For the employees deployed in the Weigh Bridge and Dispatch related work, a portable toilet is provided between Weigh Bridge No. 1 & Weigh Bridge No. 2.

No female employees are deployed on Weigh Bridge and Dispatch related work. For female employees, separate toilet and changing room have been provided in the office premises and canteen.

Ministry of Labour& Employment has published a Gazette Notification (No. 506 (E) dated 29.01.2019) in respect of employment of women in the mines including belowground. The Ministry has further issued guidelines for framing Standard Operating Procedure (SoP) for ensuring the safety and security aspects of the deployment of women in mines. Further, DGMS vide its Circular No. 01 of 2019 dated 11.02.2019 & Circular No.02 of 2019 dated 24.05.2019 forwarded the guidelines to mines/ mine managements for compliance. Copy place at Annexure-2

**2. CIL:** Best treatment has provided to the said victim initially at Orange City Hospital, Nagpur and she has recovered. But periodical check-up for her eye is continued.

Separate toilets are provided for men and women as per statute.

- **3. SCCL:** Women are employed at mines in jobs like clay pill making, housekeeping and in office. Presently, no women employee is employed belowground at the mines. However, arrangements such separate toilets, rooms and other facilities are being provided for women as per Mines Rules, 1955 in all Mines and units of SCCL and also as per the latest amendment of Mines Act, 1952.
- 3. NLCIL: Not applicable.
- **4. Odisha Coal & Power (OCPL):**Manoharpur Coal mine project of OCPL is an opencast mine and no woman employee have thus far deployed in mining activities.
- **5. ULTRATECH CEMENT:** At present there are no women employees. However, the guidelines of DGMS shall be followed in case women employees are to be deployed in underground mines.
- **1. CIL:** A Committee was constituted by MOC for standardization of specification for mining shoes and gumboots vide OM no. CCSD-51013/08/2018-CCSD, dated 22.11.2018.
  - The said Committee submitted its Report to MOC vide letter no. CIL/S&R/2019/77, dated 24.01.2019.
  - The recommendation of the committee on future
- 3 Distribution of quality Mining shoes and gumboots.
  - ii. Dr. B K Rai pointed out shortages of mining shoes and gumboots in all subsidiaries of CIL.
     He said that quality of mining shoes and gumboots should be improved.
  - ii. Shri Surender Kumar Pandey highlighted the

- shortage of Gumboot in all subsidiaries of CIL particularly in SECL and WCL.
- iv. CMDs of all subsidiaries of CIL informed that mining shoes and gumboots are being procured regularly through proper tendering process.

Action: All CMDs of CIL/SCCL/NLCIL

- standards for procurement of mining shoes, gumboots, etc. was communicated to all subsidiaries for compliance.
- The status of procurement is being monitored every month in CIL. It is one of recognized item of dashboard activity for mine safety.
- **2. SCCL:** MoC has constituted a committee and recommendations given by the said committee are being followed.

In SCCL, there is no shortage of Miners' Shoes and gumboots. Miners' shoes and gumboots are being procured as per BIS: 3976-2003 regularly through regular tendering process. Future procurement will be as per new BIS: 3976-2018.

Gumboots are being provided to the mines wherever required.

Rate contract order no.4600016544, dt.29.01.2018 was released for 3 years period on M/s Joy Laskmi, Kolkata, to supply Miners' shoes.

3. NLCIL: Not applicable to NLCIL.

However, in NLCIL Mines, Protective and occupational foot-wears are procured as per IS 15298(part 2): 2011 with the replacement warranty of 12 months and are issued to all the employees regularly at the interval of

Mining Shoes: once in a year Gum Boots: once in two years

- **4. Odisha Coal & Power (OCPL):** It is ensured that mining shoes and gumboots with ISI certification are being provided to all employed in this project.
- **5. DVC:**Mining shoes of proven quality is provided to all workers (including contractor workers) in every Six months
- **6. Mark-Mangali Mine:** Quality Mining Shoes and Gumboots are being distributed to Statutory Mining Staff, Labours.

#### 4 Utilization of Safety Budget.

Shri Surender Kumar Pandey, Representative of BMS, pointed out that only 64% of earmarked budget for safety has been utilized by subsidiaries of CIL in financial year 2017-18 and in 2018-19, up to 1<sup>st</sup> quarter, utilization is only 13.5%. NLCIL has failed to utilize any money allocated under capital head of safety budget. He desired that the utilization of safety budget

#### 1. CIL:

- Details of funds allocated and utilized for safety in last three years are given in **Agenda Item no. 8.**
- Procurement of identified safety items are in progress.
- Safety budge and utilisation is one of the important dash board item, which is being monitored every month.
- **2. SCCL:** Safety budget and its utilization for the years 2017-18, 2018-19 and 2019-20 (Up to Dec., 2019) is given below -

should be expedited.

Action: All CMDs of CIL/SCCL/NLCIL

(Rs. in lakhs)

	Ca	pital	Revenue		
Year	Budget	Actual Expendit	Budget	Actual Expenditu	
		ure		re	
2017-18	1365	1133	79670	81870	
2018-19	961	1034	94602	104863	
2019-20	700	450		62171	

#### 3. NLCIL: NON PLAN CAPITAL BUDGET

FY 2018-19		
Allocated	Expenditure as on date	
(Rs. Lakhs	(Rs. Lakhs)	
432	341	

**4. Odisha Coal & Power (OCPL):**Provision of adequate Safety Budget is made in the overall budget of the company.

·   · · · · / ·		
Year	SAFETY BUDGET	UTILIZATION in
	in Rs	Rs.
2018-19	2,23,20,000.00	4,16,632.00
2019-20	1,56,40,000.00	5,95,568.00
		(till date)

- **5. DVC:**There is provision of sufficient safety budget at DVC Bermo Mines and all important measures have been taken to ensure for maximum utilization of safety budget.
- **6. Mark-Mangali Mine:** Safety Budget isUtilized forsafety purpose fully.

#### 5 Strata Control Management

i)Shri Surender Kumar Pandey pointed out that anchorage testing machine (30-Tonne capacity) is required for accurate anchorage testing of resin capsules based roof bolts but most of UG mines of CIL are using under capacity (12-Tonne capacity) anchorage testing machine for testing resin roof bolts. He further said that there is no system of surveying off of Universal Drilling Machine (UDM) and other UG machineries in CIL. He said that RMR of roof strata is not being correctly determined as a result of faulty SSRs are being framed. He desired that all strata control cells should function properly.

ii) Shri Surender Kumar Pandey pointed out that,

- . CIL:
- Subsidiary-wise status of 30T anchorage testing machine in CIL is as under:

Subs.	No. of 30T anchorage testing	
3ubs.	machine on roll	
ECL	5	
BCCL	22	
CCL	12	
WCL	80	
SECL	28	
MCL	8	
Total	143	

- Norms for surveying off of Universal Drilling Machine (UDM) has been formulated by CMPDI.
- Scientifically determined RMR based Systematic

even after clear cut directives of National Safety Conference, the practice of manual drilling is still continuing in most of UG mines of CIL.

Action: All CMDs of CIL/SCCL/NLCIL

- Support Rules (SSR) is framed for all UG mines for roof support.
- Strata control cells as per requirement have been established.
- Subsidiary-wise Status of mechanized drilling on roll are as under:

Company	No. of Mechanized drilling m/cs as on date
ECL	133
BCCL	41
CCL	23
WCL	117
SECL	177
MCL	14
Total	505

2. SCCL:All underground mines have been provided with 12 tonne Anchorage Testing machines and 30 tonne capacity Anchorage testing machines for non-destructive test of roof bolts.

30 T: 60 Nos. 12 T : 54 Nos.

SCCL has established Strata Control Cell at Corporate as well as at Regional level.

The services of **scientific institutions like, SIMTARS, CIMFR, NIRM, NIT, IIT BHU** etc., are being utilized for effective strata management system.

There are guidelines for survey off of underground equipment in SCCL. They are implemented scrupulously.

15 Geologists and another 15 Strata control officers/Safety officers have been trained on 'Q' system for preparation of reports on **SCAMP**. As per Regulation 123 of CMR 2017 Strata control and monitoring plans (SCAMP) are being prepared for all the UG mines.

At corporate R&D dept. numerical modeling cell established and the cell is equipped with FLAC-2D&3D software and provisioned with one qualified mining engineer to conduct numerical modeling.

Web application developed for strata control management for entering data by all the mines to monitor the same.

All 27 underground mines have been provided with **266 nos.** of Pneumatic/Hydraulic roof bolters /machines for roof bolting purpose.

Manual drilling of holes in roof is dispensed with **since 2010** 

3. NLCIL: Not applicable.

#### 4. Odisha Coal & Power (OCPL):

The pit configuration is maintained with due regard to Pit Slope Stability Analysis carried out by CSIR-Central Institute of Mining and Fuel Research, Dhanbad 08-05-19 The bench and dump geometry are well within the statutory limits.

5. DVC : Not applicable.

**6. Birla Corporation**: Regular Strata monitoring by ICT and monitoring efficacy of roof bolting system by Anchor testing machines of 30 Te being carried out. Mapping of Geological disturbance, slips, cleats and area of high percolation of water is being doen.

7.**ULTRATECH CEMENT:** During Incline drivage roof bolting is being done by Hydraulic Drilling machines, during coal production Twin roof bolting machine shall be deployed as a part of the Continuous Miner package.

#### 6 Man Riding System

ShriSurender Kumar Pandey said that only 38 Man Riding Systems are in operation in the UG mines of CIL and 14 nos. are under process of installation. He desired that such system should be installed in all UG mines having long and arduous travel.

Action: All CMDs of CIL/SCCL/NLCIL

**1. CIL:**Yes. UG mines for installation of Man Riding System were identified based on assessment of relevant parameters such as arduousness of travelling, life of mine, level of production, history of mining, mineable reserves etc.

Subsidiary-wise status of Man Riding System are as under:

Compa ny	Operative	Under Installation/ Process	Total
ECL	10	11	21
BCCL	2	3	5
CCL	0	1	1
WCL	16	3	19
SECL	16	8	24
MCL	6	0	6
Total	50	26	76

Status of Man Riding System is one of recognized item of dashboard activity of CIL, which is being monitored every month.

**2. SCCL:**Out of 27 underground mines, 25 underground mines have been provided with Man riding systems. The remaining two (KPUG &Kasipet 2 Incline) mines are new

and as the mines progress, man riding system will be provided in these two mines also.

Chair Lift systems – 38, Chair Car systems – 11 and Man winders – 4.

3. NLCIL: Not applicable.

#### 4. Odisha Coal & Power (OCPL):

Manoharpur Coal mine project of OCPL is an opencast mine & hence this provision is not applicable.

**5. Birla Corporation**:Purchase order has been issued and will be operational by next financial year.

#### 7 Filling of fly ash in mines

Shri Surender Kumar Pandey objected to the decision of the MOEF&CC regarding dumping of fly ash in opencast (OC) mines, which is detrimental to mine safety, and desired that the circular issued by MOEF&CC should be withdrawn in view of serious safety ramification.

Secretary (Coal) informed that MOC has already taken up this matter with MOEF&CC.

Action: Project Adviser, MoC

- 1. CIL: Matter has been taken up at appropriate level.
- **2. SCCL:** In SCCL, presently there is no dumping of fly ash in the voids in opencast mines.
- **3.** Odisha Coal & Power (OCPL):Presently, external dumping is being carried out in the initial years as per the approved Mining Plan. Once the sufficient void is created and backfilling starts, the possibility of filling of fly ash in the mine will be explored.
- 4. Mark-Mangali Mine: Not applicable.

#### 8 Medical Infrastructures

- i) Shri Surender Kumar Pandey desired that infrastructure of IME / PME centres should be improved.
- ii) Shri Nathulal Pandey desired that infrastructural facilities of CIL's hospital should be improved. He further desired that dental chair, wherever required, should be procured and the rate contract for purchasing the generic medicines should be expedited by subsidiaries of CIL.
- iii) Shri C J Joseph, Representative of AITUC desired that at least one fully equipped ambulance should be provided in each area of CIL to cater to medical emergency.
- iv) Shri Manas Mukherjee, representative CITU desired that Annual Maintenance Contract (AMC) of Medical Equipment in all subsidiaries should be expedited. He also desired that adequate arrangement (i.e. 300mA X-Ray m/c &

#### 1. CIL:

- There are 71 Hospitals with 4405 Beds, 360
  Dispensaries, 525 Ambulance and 1160 Doctors
  including Specialists in CIL and its subsidiaries as on
  01-01-2020 to provide medical services to the
  employees.
- In addition, employees are also referred to superspecialty empaneled hospitals for treatment of their ailments.
- The status of medical infrastructure available in the company and its up gradation is also being reviewed.
- Medical facilities are also provided to the inhabitants residing in and around mines premises of the subsidiary companies of CIL.
- Director (Pers) of subsidiaries regularly visit hospitals and give instructions as needed. Even recently, Director (P/IR) visited 2 major hospitals of CCL.
- Instruction already issued to all subsidiaries to expedite process of providing at least one fully equipped ambulance with all life-saving apparatus in each operating area of subsidiary.
- Subsidiary-wise status of Lung Function Test (LFT) facilities IME / PME centres are as under:
- CCL, NCL, WCL, SECL, MCL : Lung Function Test (LFT)

- ILO Standard Radiographs) should be made available in all IME / PME centers. He further requested that one bipartite committee should be constituted with Trade Unions / Worker Representatives to oversee the functioning of hospitals of subsidiaries of CIL.
- v) Director (Personnel), MCL informed that one 500 beds hospital has already been constructed by MCL. The same will be inaugurated after obtaining due recognition from Medical Council of India / Health Ministry of Govt. of India and requisite permission from Odisha Government.
- vi) CMD, SCCL apprised that 10 new ambulances fully equipped with latest equipment are catering to the medical needs in SCCL.
- vii) CMD, NLCIL informed that company has three fully equipped lifesaving ambulance facilities for the purpose.

Action: CMD & D (P) of CIL/SCCL/NLCIL

- facilities are provided in all IME / PME centres
- ECL: LFT facilities through Spirometer are provided in 11 out 16 IME / PME centres. LFT facilities through peak flow meter are provided in other 5 IME/ PME centres.
- BCCL: LFT facilities at Central Hospital, Dhanbad is being used to cater the need for those Areas where such facilities are not available as on date.
- **2. SCCL:** 12 fully equipped PME centers with 23 OHS Trained Doctors have been established to cater to the needs of IME and PME of permanent and contractual employees.

SCCL established 1 Main Hospital, 6 Area Hospitals and 21 dispensaries covering 11 administrative areas of the company for extending medical facilities to the employees. SCCL also empanelled 86 Corporate Hospitals at Hyderabad including AIIMS, New Delhi, CMC, Vellore etc.

SCCL provided **59 ambulances** including **10ICCU ambulances** equipped with transport ventilators, multi - parameter monitor, defibrillators, suction apparatus, bulk cylinders, pulse oxymeter and all emergency medicines.

Annual Maintenance Contract **(AMC)** exists for maintenance of the Medical Equipment.

Details of X-ray machines:

SI.	Туре	No. of machines
1	300 MA	05
2	500 MA	03
-	Total	08

Procurement of another 8nos. 500MA X- Ray machines orders is released and installation is under process.

#### 3. NLCIL:

- i) In NLCIL Occupational Health Services Unit is integrated with NLCIL Hospital and complies with the guidelines of DGMS for conducting Periodical Medical Examination of Miners including contract workmen once in 3 years.
- ii) NLCIL has outsourced the laboratory services exclusively for OHS to SRL Diagnostics, SRL Ltd, Mumbai and they have provided the services including X-ray 300MA, 12 Lead ECG Machine, Audiometry, Spirometry, Biochemistry Analyzer, HematologyAnalyzer, Urine Analyzer.
- iii) NLCIL runs its own 350 bed capacity secondary level

hospital care facility at Neyveli, which provides comprehensive medical care in broad specialties of emergency care, general medicine, diabetology, chest medicine, renal care, General surgery, Reproductive health, Child health services, Family Welfare, Paediatrics, Ophthalmology, rthopaedics, ENT, Dermatology, Venereology, Leprology, Rheumatology, Psychiatry and Dental Services.

- iv) NLC India Hospital procures, stocks and supplies medicines to patients in generic form as per drug formulary firmed up for all essential medicines.
- v) NLCIL has 3 fully equipped ALS Ambulances and 1 BLS Ambulance to shift any RTA cases from the site of accident to the emergency care centre/GH. In addition, 15 empanelled BLS Ambulances are also available to shift any sick patients for tertiary care at higher institutions for better treatment facilities and health care to the patient.
- vi) Medical equipments required for various specialty domains in NLCIL Hospital are procured through centralized Material Management System adopting efficient tendering system. After warranty, separate contract is entered into with the supplier for AMC. AMC programme ensures operational efficiency of all medical equipments at optimal level with downtime kept to the minimum.
- vii) NLCIL has 3 fully equipped ALS Ambulances and 1 BLS Ambulance to shift any RTA cases from the site of accident to the emergency care centre/GH. In addition, 15 empanelled BLS Ambulances are also available to shift any sick patients for tertiary care at higher institutions for better treatment facilities and health care to the patient.
- **4. Odisha Coal & Power (OCPL):** First-aid facilities have been provided at mine end. A fully equipped 14 bed hospital (6 beds in male ward, 6 beds in female ward and 2 isolation units) is under construction at OCPL's residential colony. The nearest Govt. hospital at Himgir is at 10Kms from the project site.
- **5. DVC :** Proper first-aid and general medical facilities are available at a dispensary situated at DVC Bermo Mines. Moreover, for critical medical issues, facilities at DVC BTPS hospital can be availed along with some reputed government and private (tied up with DVC) hospitals.

#### 9 Medical personnel

i. Shri Nathulal Pandey said that appointment of doctors as per recommendations of 42nd Standing Committee has not been done by CIL. He desired that process of appointment of doctors should be expedited. **1 CIL**: There are 71 Hospitals with 4405 Beds, 360 Dispensaries, 525 Ambulance and 1160 Doctors including Specialists in CIL and its subsidiaries as on 01-01-2020 to provide medical services to the employees.

In addition, employees are also referred to super-specialty

- ii. Shri Manas Mukherjee pointed out that shortage of paramedical staffs in different subsidiaries of CIL has not been filled up.
- ii. Director (P&IR), CIL informed that for the recruitment of 528 (Including 176 GDMOs) medical executives, advertisement was published in leading newspapers and 4474 numbers of applications have been received. Interview of candidates will be started soon for appointment of doctors in different subsidiaries of CIL.

Action: D (P) of CIL/SCCL/NLCIL

empaneled hospitals for treatment of their ailments.

The status of medical infrastructure available in the company and its up gradation is also being reviewed.

Medical facilities are also provided to the inhabitants residing in and around mines premises of the subsidiary companies of CIL.

Director (Pers) of subsidiaries regularly visit hospitals and give instructions as needed. Even recently, Director (P/IR) visited 2 major hospitals of CCL.

Instruction already issued to all subsidiaries to expedite process of providing at least one fully equipped ambulance with all life-saving apparatus in each operating area of subsidiary.

Subsidiary-wise status of Lung Function Test (LFT) facilities IME / PME centers are as under:

- i) CCL, NCL, ,WCL,SECL,MCL: Lung Function Test (LFT) facilities are provided in all IME / PME centres
- ii) ECL: LFT facilities through Spirometer are provided in 11 out 16 IME / PME centres. LFT facilities through peak flow meter are provided in other 5 IME/ PME centres.
- iii) BCCL: LFTfacilities at Central Hospital, Dhanbad is being used to cater the need for those Areas where such facilities are not available as on date.
- **2. SCCL:** During last six months 25 Specialists and 30 GDMOs were recruited to provide out patient, inpatient, Occupational, diagnostic and referral services.

SCCL has strength of 86 Specialists and 155 General duty medical officers.

**There is no shortage** of Lab technicians and Para-medical staff as the shortage is being met by employing the above staff on contract.

#### Appointment of 306 Para-medical staff is under process

3. NLCIL: Not Applicable to NLCIL.

#### 4. Odisha Coal & Power (OCPL):

Qualified medical practitioner visits OCPL's mine on weekly basis. Appointments of medical personnel are going on.

**5. DVC:**There are 02 (two) doctors and 03 (three) compounders are available at a dispensary of DVC Bermo Mines. Subsequently, for critical medical issues we refer to well-run hospital at Bokaro thermal which is having

#### sufficient numbers of doctors.

### **6. Mark-Mangali Mine:** A Team of Doctors is empaneled with Company.

# 10 Retirement age of technocrat of mining discipline

Shri Nathulal Pandey opined that in view of projected target of coal production from CPSUs, experienced technocrats are required. He desired that retirement age of technocrats of mining discipline may be enhanced, subject to medical fitness, for sake of the sustained and continuous growth of the industry. He cited the provisions of Regulation 25 of Coal Mines Regulations 2017 wherein the validity of Mine Manager and Statutory official certificates has been extended up to age of 70 years subject to medical fitness and approval by DGMS.

# Action: CMD & D(P) of CIL/SCCL/NLCIL and DG, DGMS

- **1. DGMS:** Enhancement of retirement age of the technocrats is beyond the purview of DGMS.
- **2. CIL:** Neither such provision as per DPE nor any fresh guidelines issued by DPE in this context, as CIL being a CPS has to follow the guidelines of DPE in this regard.
- **3. SCCL:**SCCL will abide by the decision of the Central government.
- **4. NLCIL:** NLCIL is a CPSE and guidelines issued by DPE isbeingfollowed with the approval of Board of Directors of NLC India Limited.

#### 5. Odisha Coal & Power (OCPL):

The OCPL is a state government company. Theretirement age is governed by law and guidelines issued in this regard by the State Govt. from time to time.

- **6. DVC:** Every action has been taken for recruitment of the statutory manpower.
- **7. Birla Corporation::**Company has flexible Recurement policy. Depending upon requirement tenure of experienced technocrats can be extended. Apart, parallel entry requirement policy available.

# 11 Promotion of departmental candidates to statutory post

- i. Shri Nathulal Pandey desired that departmental candidates having requisite statutory qualification should be promoted to vacant statutory post so that their experience can be gainfully utilized.
- ii. Shri Manas Mukherjee desired that talented persons should be appointed to the post of statutory position so that company gets best of the available talent in the country. He further suggested that an Institute of International Standard may be established by CIL to develop manpower with appropriate skill and expertise to cater to specific needs of coal industry of the country.

Action: D (P) of CIL/SCCL/NLCIL

**1. CIL:** For FY 19-20, recruitment process from departmental candidates has been started for 257 statutory posts in Mining Discipline.

For other disciplines, backlog recruitment of 1589 posts is already planned in this year through Computer Based Test after interviews of MTs are over.

Thereafter, 775 (vacancies calculated upto 01.02.2019) posts will be filled through departmental candidates.

**2. SCCL:** Departmental candidates with required statutory qualifications are being promoted as and when vacancies arise.

The Executives, Supervisory staff and technicians are being sent to skill development programmes at national level as well as international level. The technicians are also **being trained** at **OEM centers** to improve their

technical skills.

Details of Tradesmen/Supervisors/Executives trained at OEM Centers:

a) 2015-16:397

b) 2016-17:517

c) 2017-18:371

d) 2018-19:575

e) 2019-20(up to Jan., 2020):857

#### 3. NLCIL:

- i) NLCIL has an approved career growth policy taking care of the promotion based on the organizational requirements.
- ii) Statutory positions are being filled based on requirement and the individuals fulfilling the eligibility criteria/meeting the norms.

#### 4. Odisha Coal & Power (OCPL):

OCPL has defined policies & procedures in consonance with Govt. norms towards promotion of departmental candidates to statutory posts.

**5. DVC:** Every step has been taken for the promotion of departmental candidates to statutory post.

# Payment of additional ex-gratia of Rs. 5 lakh to the dependent of deceased contractual employees.

- Shri Nathulal Pandey desired that system of payment of additional ex-gratia of Rs. 5 lakh to the dependent of deceased contractual employees as per directive of Hon'ble Minister during 42<sup>nd</sup> meeting of Standing Committee on safety in coal mines should be implemented.
- ii. Shri Manas Mukherjee desired that payment of additional ex-gratia of Rs. 5 lakh to the dependent of deceased contractual employees as per directive of Hon'ble Minister should be started.
- iii. Shri Nathulal Pandey said that most of the contractual workmen get less payment than the amount which was decided by the high powered committee.
- iv. Hon'ble Minister advised that CIL, as a Principal Employer, should ensure that the minimum wage to all contractual workmen is paid as per the recommendations of high powered committee.

- **1. CIL:**The ex-gratia of Rs 5 lakhs to the dependent of deceased contractor worker/employee has been increased to Rs 15 lakhs w.e.f. 07-11-2019.
- **2. SCCL:**As regards the contract employees, the contractor is paying the compensation required to be paid under Workmen Compensation Act and Ex-gratia in case of mine accidents.

Contract employees are **being paid minimum wages as per Government orders** from time to time and the payments are made through banks.

**3. NLCIL**: A scheme for payment of "Death Relief" to the dependent of deceased contract workman had been instituted in NLCIL, which envisages payment of Rs. 5.0 Lakhs as solatium for the death of the contract workman in an industrial accident apart from other statutory payments and insurance liability claims, and Rs. 10.00 Lakhs as solatium in respect of death other than on

#### Action: D (P) of CIL/SCCL/NLCIL

account of industrial accidents as single source of solatium.

ii) All the contract workmen deployed by Contractor employers for works in NLCIL are being paid more than the minimum wages as notified by the Chief Labour Commissioner (Central) for different categories of workmen and the payments are made on e-payment mode through Banks. The exact payment of wages to contract workmen by the Contractor employers are monitored and ensured by the officials of NLCIL, by certifying the payment register applicable.

In respect of NLCIL unlike CIL, the High Powered Committee wages are not applicable and wages notified by the Chief Labour Commissioner (Central) is applicable.

**4. Odisha Coal & Power (OCPL):**This provision will be ensured as per law.

# 13 Scientific Study of OC mines as per Coal Mine Regulations 2017

Sri C J Joseph desired that CMPDI, having extensive and adequate experience in effective planning of mines in India, may be allowed to conduct scientific studies and DGMS should acknowledged the same. He desired that Ministry should issue directive in this context.

Action: DG DGMS and CMD CIL/SCCL/NLCIL

**1. DGMS:**CMPDI is a subsidiary of Coal India Limited (CIL), which deals with planning and design of CIL mines only. CMPDI is not an independent Scientific Agency approved by the Government of India for conducting scientific studies

Since CMPDI is not an approved agency for conducting scientific studies, DGMS cannot issue directives in this regard.

- **2. CIL:**Scientific Study of mechanized OC mines as per Coal Mine Regulations (CMR)-2017 is being done by using expertise of various recognized Scientific and Technical Institutes of India as well as CMPDI.
- **3. SCCL:**Slope stability scientific studies are carried out in Opencast mines with the help of scientific institutions, like CIMFR, NIRM, IIT(ISM), IIT (BHU), etc. As on date, studies have been completed in 16 opencast mines out of 18 opencast mines. Studies are in progress in remaining mines.

Geotechnical study of stability of OB dumps and deep Opencast mines is being carried out by CSIRO, Australia.

LiDAR (Light Detection and Ranging Terrestrial 3D Laser Scanner) has been commissioned to assess the movement of OB dumps and benches on a real time basis for taking proper remedial actions.

**4. NLCIL:** Subsequent to the promulgation of Coal Mines Regulations 2017, NLCIL has taken initiatives to conduct Scientific study of Neyveli Mines. LoA was issued to Indian Institute of Technology(BHU), Varanasi. Field works are completed, Draft study report submitted by the institute and finalized. Final report is awaited.

#### 5. Odisha Coal & Power (OCPL):

OCPL have been engaging credible Govt. agencies for all scientific studies carried out till date. Mine plan for this mine was prepared by CMPDIL. Slope stability study (both pit & dump) was done by IIT-Mumbai & recently by CSIR-CIMFR. Also, an agreement has been made with CSIR-CIMFR for carrying out trial blast & design of blast geometry.

# 14 Dust Control & National Dust Prevention Committee (NDPC) meeting

- i. Shri C J Joseph desired that meeting of NDPC

   a sub-committee constituted under CIL
   Safety Board to address issues related to dust in coalfields, should be held at the earliest.
- ii. Shri Manas Mukherjee said that mist type water sprinkling arrangement is not functioning properly as filtered water is not used and as a result nozzle get chocked over a period of time.
- iii. Director (Technical), CIL and Chairman, NDPC announced that next meeting of NDPC will be held in the first week of September 2018.

Action: D (T), CIL

1.CIL: Complied.

The 17th and 18th meetings of the National Dust Prevention Committee (NDPC) were held on 6th September, 2018 and 20th September, 2019 respectively in Kolkata under the Chairmanship of the Director (Tech), CIL.

Mist type water spraying arrangement are operating properly in 42 CHPs, 14 SILOs and 20 Rly sidings of various subsidiaries of CIL.

Recently, two truck mounted mist type water cannon have been commissioned in NCL.

- **2. SCCL:**In SCCL, in some CHPs, Mist Spray and Dry fog dust suppression system is adopted.
- NLCIL: Not applicable to NLCIL. However in NLCIL Mines,
- Water spraying with sprinklers having capacity of 26 Kilo Litres (KL) is being done in the Mines round the clock.
- ii) HDPE Pipe line is laid along the conveyors with sprinkling system for dust suppression.
- iii) Water spraying system is provided at all the discharge points of the conveyors for effective dust suppression.
- iv) Water spraying arrangements in Bucket Wheel Excavator also introduced for effective control of dust at source.
- v) Permanent roads(peripheral) are made with black topping. Extensive afforestation is carried out in and around the Mines.

#### 4. Odisha Coal & Power (OCPL):

The Committee is constituted as Sub Committee of CIL Safety Board hence it is not applicable to OCPL.

- **5. Mark-Mangali Mine:** Controlling dust emission by praying water sprinkler in mine Area and by Water Tanker in the Mine periphery and out side roads.
- **6. Birla Corporation**:Adequate dust control measures has

been taken.

# 15 Study on effect of diesel particulate matter (DPM) in the ambient mine environment.

- i. Shri C J Joseph pointed out that DPM is far more polluting than coal dust and can be detrimental to health of employees working in OC mines. No study except one attempt in WCL has been conducted so far to find out adverse health effect of DPM in OC mines.
- ii. CMD, CMPDI apprised that air monitoring in mines is being done on a regular basis in compliance to the MoEF&CC guidelines. He further suggested a study may be taken up through a recognised agency to study the effect of diesel particulate matter in the ambient mine environment.

Action: CMD of CIL/SCCL/NLCIL

**1.CIL:**All diesel engines used in HEMM are complying the latest prescribed emission norms of the country. It is being checked regularly.

WCL with help of CSIR-NEERI, Nagpur has conducted a study on "Assessment of impact of diesel particular matter in ambient air on health of employees deployed in OC mines of WCL".

2. SCCL:Exhaust emission test of all Heavy Earth Moving Machinery including diesel operated machinery is being carried out through Environment Protection Training and Research Institute (EPTRI), Hyderabad at a frequency of once in 6 months complying Environmental clearance conditions of MoEF&CC.

SCCL procured 8 nos. of Continuous Ambient Air Quality monitoring (CAAQMS) equipment for continuous monitoring in the following opencast projects.

1. GK OC 2. JVR OC 3. PK OC 4. MOC 5. RG OC I 6. RG OC III 7. KHA OCP and 8. SRP OC.

The project is awarded to NIT, Warangal, Telangana State and PO is to be released.

**3. NLCIL:**In NLCIL, Ambient air quality is monitored in mines core zone, at all the mines as per statutory regulations from MOEF&CC, CPCB for the parameters viz. PM10, PM2.5, SO2& NOX and the values are found within limits.

#### 4. Odisha Coal & Power (OCPL):

Air monitoring is being carried out on a regular basis.

#### 16 Blast Free Coal Mining:

Shri C J Joseph emphasized on increasing use of blast free mining technology for enhancing safety and production. He said that new mines are progressively designed with advanced mining technology but he desired proper scheme should be prepared for existing mines also.

**1. CIL:** Status of blast free technology in CIL mines:

SN	Technology	No. of Machines	Future programme
1	Surface Miners (incl. HOE)	112	28
2	Continuous Miner (CM)	16	28
3	High Wall	2	2
4	PSLW	2	3

2. SCCL: The new and deep mines are planned to work with Continuous Miners (CM) to phase out blasting

operations and to enhance safety and production. CMs: 04 + 01 (Under procurement) LW : 01 3. NLCIL:NLCIL mines are being operated with State ofthe-Art- Technology Bucket Wheel Excavators, Conveyors and Spreaders. Blasting is carried out to give shattering effect only wherever rock strength is higher. 4. Odisha Coal & Power (OCPL): OCPL has been trying to minimise the blasting requirement & deployed Surface Miner for coal extraction. **5. Birla Corporation**: As on date, coal production being done with blasting method and blast free technology with continuous miner (CM) will be operational from next year after installation of belt conveyor in incline. 6. ULTRATECH CEMENT: Incline drivage is being done by two road headers to ensure blast free mining. Two nos of Continuous Miner Package shall be deployed for better safety and productivity during coal production. 17 **Amendment of Mine Vocational Training Rules** (MVTR) - 1966 **DGMS:** The Ministry of Labour&Employment is in the Shri C J Joseph said that existing MVTR-1966 is process to amend the Mines Vocational Training Rules redundant in today's context and desired that the existing Mine Vocational Training Rules (MVTR). Draft Mines Vocational Training Rules, 2019 are at final stage for pre-publication in the Gazette of India. (MVTR)-1966 should be amended The Ministry will be publishing draft Gazette seeking accommodate changes in mining technology and comments and suggestions from different stakeholders. methods. Action: DG, DGMS 18 Amendment of Mine Rescue Rules (MRR) -1985 **DGMS:** DGMS has set up a Committee for suggesting the Shri C J Joseph pointed out the inadequacies in existing MRR-1985, which does not have any amendment to Mines Rescue Rules, 1985. provision for rescue & recovery operation for dealing with emergency situation in OC mines. He desired DGMS should take initiative to amend the existing MRR-1985 for dealing with emergency in OC mines. Action: DG, DGMS 19 **Authority of Mine Manager affecting safety** 1. CIL: All Mine Managers are empowered by statute. Further, adequate control has been given to them by CIL i. Shri C J Joseph mentioned about diminishing of and its subsidiaries through providing specified stature of mine Manager, who is key person for "Delegation of Power (DOP)" for facilitating execution of ensuring mine safety; in many cases Manager of their duties and responsible with authority. Due to various

the mine has become junior to some of the executives of other disciplines posted in mines. This is because of delay in promotion of mining executives in E6 grade. It was desired that CIL should take appropriate actions in this regard.

ii. Dr. V.P. Sinha, President IMMA also mentioned that there is problem in promotion of E6 executives in CIL.

Action: CMD & D (P) of CIL

court cases DPCs were on hold in the past. All DPCs upto E-6 grade for cut off 2018.

2446 promotion orders issued in FY 19-20.

**2. NLCIL:** In NLCIL Mines Senior executives in the rank of E7 & E8 are appointed as Mine Manager. Promotion of Executives is as per applicable career growth policy of the Executives & Non-Unionized Supervisors (NUS).

#### 3. Odisha Coal & Power (OCPL):

The company policy of OCPL provides adequate authority to Mine Manager so that safety is not affected.

#### 20 Status of competent persons

i.Shri C J Joseph said that there are huge shortages of competent persons, other than competent statutory supervisors, in most of CIL's mines. He desired that shortages should be analysed in light of requirement of recent Coal Mine Regulations 2017 for sake of mine safety and improving productivity.

Action: D (P) of CIL/SCCL/NLCIL

ii. Dr. Vinod P. Sinha desired that all subsidiaries should allow UG trainings to enable candidates to appear in statutory examinations conducted by DGMS.

Action: D (T) CIL

**1. CIL:** Adequate "Competent persons" as defined in Reg.2 (m) of Coal Mine Regulation 2017 are deployed in the mines. Further, status of competent persons is being review regularly by Mine Manager and shortages, if any, are filled.

Temporary intra-company transfers are also facilitated by the Management for executives to obtain UG experience in the absence of UG mine in any subsidiary.

#### 2. SCCL:

#### A. MINING EXECUTIVES:

Category	Requirement (2019-20)	MOR as on 30.12.19	Variance (+/-)
Mining			
Executives	940	882	-58
(I & II)Total			

Test for internal selection of 26 MGTs was conducted on 05.04.2019 and the results have been withheld due to a case filed in the court of law.

#### **B.** MINING SUPERVISORY STAFF:

Category	Requirement (2019-20)	MOR as on 30.12.19	Varia- nce (+/-)
Overman	1060	758	-302
Mining Sirdar	479	561	82
Shot firer	880	1016*	136
Total	2419	2335	-84

\*780 mining diploma holders acquired Overman certificate are utilizing them as Shot firer / Mining Sirdar to get experience before deploying them as Overman. They will be given authorization to work as Overman against the vacancy.

 Notification will be issued shortly for recruitment of 125 JMETs (MS+SF) to meet the future requirement.

#### **E&M Supervisors**:

Category	Requirement (2019-20)	MOR as on 30.12.19	Varia- nce (+/-)
Ele. Supervisors	382	351	-31#
Mech. Supervisor	401	337	-64@

#### **ELECTRICAL SUPERVISORS -**

# Against shortage of 31 Asst. Foremen (Electrical), recruitment of 25 Asst. Foremen (Electrical) through external mode is in process. Recruitment of 30 persons as Charge hand (Ele) through interview conducted on 27.11.2019 and orders are issued.

#### **MECHANICAL SUPERVISORS -**

@ Recruitment of 20 persons as Asst. Foremen (Mech.) exam conducted on 24.11.2019 and orders issued, yet to be reported.

Recruitment of 68 AFM (Mech.) diploma holders from Internal which has held up due to court case.

Persons through fast track (350) were given orders. At present 120 employees are on training.

- **3. NLCIL**:In NLCIL, there is no shortage of manpower to take care of the statutory requirements.
- i) So far, all aspiring Executives are being deputed for Underground Training to acquire statutory qualification.
- ii) Now, as per Coal Mines Regulations 2017, candidates are eligible to obtain statutory certificates restricted to opencast mines with NLCIL Opencast Mines experience.

#### 4. Odisha Coal & Power (OCPL):

Adequate numbers of competent persons have been appointed in OCPL's mine. Recruitment process is going on to enhance the statutory bench strength.

- **5. ULTRATECH CEMENT**: The following Statutory Manpower are deployed:-
  - Safety Officer 01.
  - Survey Officer -01.
  - Colliery engineer 01.
  - Asst Manager 04.
  - Overman 04.
  - Mining Sirdar 07.

#### 21 Ratification of recommendations of ILO-176

i) Shri CJ Joseph said that the recommendations of ILO convention 176 which is recognized by 33 countries of the World are yet to be ratified by the Govt. of India. These recommendations are still relevant for workmen safety and health. He desired that the Govt. of India should ratify the ILO Convention 176.

ii) Shri Mamas Mukherjee desired that the Govt. of India should ratify the recommendations of ILO-176 for ensuring protection of workers occupational health and safety.

Action: DG, DGMS

#### • Surveyor - 01.

**DGMS:** Most of the provisions of the ILO convention 176 are already absorbed either directly in the law or put in practice through circular/instructions.

Certain provisions of ILO convention 176 given in **Annexure-3** are not covered innational laws.

It is not possible to ratify ILO conventionstill national Laws cover all aspects of their conventions through established processes.

### 22 Area Level Tripartite Safety Committee (TSC) in ECL

ShriManas Mukherjee informed that area level Tripartite Safety Committee (TSC) has not been held in ECL since long. He desired that area level Tripartite Safety Committee (TSC) should be regularly held in ECL. CMD, ECL assured that all meetings will be held as per schedule.

**Action: CMD ECL** 

1.CIL: Complied.

**2. SCCL**:Area level Tripartite Safety Review meetings are being conducted regularly. Last meeting was conducted in the month of December, 2019.

The company Level Tripartite Safety Review Meeting was also conducted on 27.12.2018.

- **3. NLCIL:**Not Applicable to NLCIL. However in NLCIL, Tripartite Safety Meetings are regularly conducted. During 2018, Tripartite Safety Meeting was conducted on 30.06.2018 and in 2019,Bi-partite Safety Meeting was conducted during the month of December 2019.
- 23 Compulsory Bio-metric attendance &training of Contractor Workers
  - i.All subsidiaries were directed that mandatory bio-metric attendance for all contractual employees should be ensured by 30<sup>th</sup> Sep-2018 and it should be included in NITs.
  - ii. Dr. Vinod P. Sinha desired that proper training should be imparted to contractual employees with special reference to out-sourcing to reduce mine accidents.

Action: D (P) of CIL/SCCL/NLCIL

1. CIL: Subsidiaries have been directed to use off-line method of storing and uploading of data in case of remote areas and complete 100% registration. As on 25-01-20, 95.12% of employees are covered.

As on 25-01-20, 85.51% of the contractual workers have been registered under bio-metric and rest are in the process of registration.

Vocational Training as per Mines Rules – 1955 is being imparted to all contractual employees covering all aspects regarding mine safety.

2. SCCL: In SCCL, Facial Recognition System (FRS) was installed and tested at Padmavathikhani 5 Incline, an underground mine with a man power of 850 since October 2016. It was successfully implemented. Based on the above performance, it is proposed to install FRS in 20 underground mines (67 units). Process of tendering for the same is on.

Presently, capturing of attendance in all offices, General

Managers' offices and Corporate office through Finger Print Identification is being successfully implemented since June 2016. Based on the above, 239 units are proposed for opencast mines and surface departments and the process of tendering is on.

On implementation for company employees, capturing of attendance will also be linked to contract employees in a phased manner.

All persons engaged by Contractor within the mine premises, are being given relevant training at MVTCs and job related briefing at the mines.

In the year 2018: No. of contract persons:

imparted basic training -- 8650 job related training -- 3577 explained salienttraffic rules -- 4826

In the year 2019: No. of contract persons:

imparted basic training - 10189 job related training - 6130 explained salienttraffic rules - 6842

In the year 2020: No. of contract persons:

imparted basic training -- 413
job related training -- 184
explained salienttraffic rules -- 186

- **3. NLCIL:**In NLCIL, Bio-metric attendance for contract workers had already been implemented.
- ii) Training is given on regular basis to contract workers through Vocational Training Centre on safety aspects.

#### 4. Odisha Coal & Power (OCPL):

Biometric attendance is available for OCPL employees. The same is being taken up with contractor for implementation.

The contractual workers undergo vocational training as per statute.

**5. DVC**: Action has been taken for installation of Biometric attendance & training of Contractor Workers.

### 24 Increase in coal production with safety in mines of Tata-Steel

i. Representative of Tata Steel informed that Tata-Steel (TSL) is producing about 7.5 Million Tonne (Mt) of Coal (1.5 Mt from UG and 6.0 Mt from OC) with adequate safety. He informed that Tata-Steel has introduced highwall mining and Training Simulators in their mines. Tata-Steel i) TSL: West Bokaro will produce approx. 9 MT by FY-22 through Open Cast. At present, it is producing approx. 6 MT. At Jharia, approx. 1.5 MT will be produced through underground.

has planned to produce 10 Mt coal from OC mine and introduce CM technology in UG mines in coming years.

ii. Hon'ble Minister advised that Tata-Steel should take all steps to ensure mine safety.

Action: Head of Mining, Tata Steel (TSL)

- ii) 1. Safety visit: all officers and supervisors are weekly doing one safety visit of specific area to find out the unsafe conditions/acts.
- 2. Line walk: All senior executives are doing line walk in their respective area to sensitize through conversation with the employee & contractor worker to improve workplace safety.
- 3. JCC: All the SOPs are being checked for its adequacy through job cycle check and revised periodically as and when any inadequacy is found during the JCC. Training is also imparted on Revised SOP
- 4. Safety Audit: Safety audit of the sites are being done through the cross functional teams and periodically through third party as well. Apart from this, on daily basis, a Safety Action Team(SAT) was formed which is doing audit of one area every day and reports are being discussed in daily meeting. Compliance is monitored by HODs on weekly basis.
- 5. Contractor safety management: To upgrade the skill and improving safety culture among contractors, TSL has introduced Six step contract safety management:
- i). Contract selection
- ii) Contract preparation
- iii) Contract award
- iv) Orientation & Skill training
- v) Managing the work
- vi) Periodic evaluation.

Some new initiatives have also been taken such as Sumilan (Theme base two-way communication between Senior Leaders & Contractors), Star rating of High Risk Contractors (to improve competency of contractor) & Mentor mentee concept (Create culture of openness/fearlessness and stress on relationship building to improve safety)

- 6. Incident investigation: All the incidents including high potential near misses are being investigated and recommendations of all incident across the company are being shared among all concerned area owners through red strip and orange strip and its horizontal deployment of relevant Recommendations at departments.
- 7. Near miss capturing: All the near misses are being captured and reported. All employees, contractor workers can report the near miss and immediate actions are being initiated based on the report.
- 8. FRCP capturing: Fatal potential conditions & acts are captured by safety officers & line managers. HODs review and ensure its elimination.
- 9. All the lead indicators and safety related matters are being monitored through online ENSAFE system. These are reviewed monthly by the top management.

Technological interventions for improving safety:

- 1. Simulator based training to all the HEMM operators before actual deployment.
- 2. Continuous nitrogen flushing in four of the underground mines of Jharia Division.
- 3. Man riding system is running in three underground mines whereas in other two mines it is under installation.

- 4. Roof bolting with resin capsule is being used in all underground mines. Apart from this, we are also doing side bolting.
- 5. In three of the underground mines of Jharia Division, we are introducing Continuous Miner/Road Header by Apr-19.
- 6. Installation of Excavator hanger for safe maintenance of excavators.
- 7. High wall mining is running at West Bokaro Division.
- 8. Continuous environment monitoring system is being done at all the Underground Mines of Jharia Division.
- 9. Slope Stability Radar is in use at West Bokaro Division.
- 10. Skill development training is being imparted apart from MVTR requirements for both TSL as well as Contractor employees.
- 11. Auto fire suppression system fitted in all HEMM at Quarries
- 12. Fire hydrant system has been installed in all major buildings & installations.
- 13. Safety feature like reverse camera, blind spot mirror, proximity sensor, audio visual alarm and auto dipping device provided in HEMMs.
- 14. Installation of Tyre press for safe dismantling of HEMM tyres.
- 15. CCTV surveillance at remote location deployment.
- 25 Proposal of using of CNG based tipper & dumper in SASAN, OCP, Reliance Power

Representative of Sasan OCP of M/s Reliance Power Limited informed that the Mine Management has planned to introduce CNG in place of diesel.

Head, SASAN, OCP, Reliance Power

Revised date for start of trial with LNG hybrid fuel Dumpers (MT4400AC, 6 nos.) in Sasan OCP, Reliance Power is now 31st Mar.'19. 'Approval of LNG tanks' by PESO & 'Licensing of LNG Storage & dispensing facility' by PESO - are under process.

# 26 Visit of Pvt. Coal Mines by Standing Committee on safety in coal mines

Hon'ble Minister suggested that all Trade Union (TU) representatives of the Standing Committee along with Director (Technical) of all subsidiaries of CIL, SCCL and Officials from MOC should separately identify and inspect better operating mines, if any, in private sector. He advised that good practices relating to safety should be disseminated to all the mines.

Action: CMD & D(T) of CIL/SCCL/NLCIL

- 1. Sub-committee on safety in coal mines Ministry of coal has inspected of Moher & Moher Amlori Ext. OC project of M/S Sasan Power Limited on 19.12.2008. The sub-committee visit report is given at **Annexure-4**
- 2. Recommendation of the Sub-Committee communicated to M/s. Sasan Power Ltd. is given at **Annexure-5**
- 3. Action Taken Report on the Recommendation of the Sub-Committee is given at **Annexure-6**.

# 27 Standardization of specification for mining shoes and gumboots

that a committee may be constituted by MOC with representatives of CIL, SCCL & NLC for finalizing the specifications for procurement of good quality of mining shoes and gumboots.

Action: CMD & D(T) of CIL/SCCL/NLCIL

# 28 Provision of Ambulance with all life-saving apparatus

ix. In view of the issue raised at Para-8(iii), he instructed that at least one fully equipped ambulance with all life-saving apparatus, in working condition, should be provided in each operating area of subsidiary of CIL.

Action: D(P) of CIL/SCCL/NLCIL

**1. MOC:** A Committee was constituted by MOC for standardization of specification for mining shoes and gumboots.

The Committee met on 16.01.2019. After detailed deliberations on the future Standards of Specifications for mining shoes and gumboots, the Committee submitted its recommendations for your kind perusal. Recommendations of the Committee are given at Annexure-7. Recommendation circulated to coal companies for compliance. Annexure-8

#### 1. CIL:

- There are 71 Hospitals with 4405 Beds, 360
  Dispensaries, 525 Ambulance and 1160 Doctors
  including Specialists in CIL and its subsidiaries as on
  01-01-2020 to provide medical services to the
  employees.
- In addition, employees are also referred to superspecialty empanelled hospitals for treatment of their ailments.
- The status of medical infrastructure available in the company and its up gradation is also being reviewed.
- Medical facilities are also provided to the inhabitants residing in and around mines premises of the subsidiary companies of CIL.
- Director (Pers) of subsidiaries regularly visit hospitals and give instructions as needed. Even recently, Director (P/IR) visited 2 major hospitals of CCL.
- Instruction already issued to all subsidiaries to expedite process of providing at least one fully equipped ambulance with all life-saving apparatus in each operating area of subsidiary.
- Subsidiary-wise status of Lung Function Test (LFT) facilities IME / PME centres are as under:
- CCL, NCL, ,WCL,SECL,MCL : Lung Function Test (LFT) facilities are provided in all IME / PME centres
- ECL: LFT facilities through Spirometer are provided in 11 out 16 IME / PME centres. LFT facilities through peak flow meter are provided in other 5 IME/ PME centres.
- BCCL: LFT facility at Central Hospital, Dhanbad is being used to cater the need for those Areas where such facilities are not available as on date.
- **2. SCCL:**The recommendations given the Committee formed by MoC are being followed scrupulously.
- **3. NLCIL:** NLCIL has 3 fully equipped ALS Ambulances and 1 BLS Ambulance to shift any RTA cases from the site of accident to the emergency care centre/GH. In addition, we have 15 empanelled BLS Ambulances to shift any sick patients for tertiary care to higher institutions for better treatment facilities and health care to the patient.

Lung Function Test (LFT) facilities in IME / PME centers

29

There are 71 Hospitals with 4405 Beds, 360 Dispensaries, 525 Ambulance and 1160 Doctors including Specialists in CIL and its subsidiaries as on

i. In view of the issue raised at Para-8, he advised that all IME / PME centers of subsidiaries of CIL should be equipped with Lung Function Test (LFT) facilities.

Action: D(P) of CIL/SCCL/NLCIL

- 01-01-2020 to provide medical services to the employees.
- In addition, employees are also referred to superspecialty empaneled hospitals for treatment of their ailments
- The status of medical infrastructure available in the company and its up gradation is also being reviewed.
- Medical facilities are also provided to the inhabitants residing in and around mines premises of the subsidiary companies of CIL.
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BCCL: LFT facility at Central Hospital, Dhanbad is being used to cater the need for those Areas where such facilities are not available as on date.

- **2. SCCL:**10 ICU equipped ambulances are provided at SCCL hospitals, Dispensaries/mines
- **3. NLCIL**: Lung Function Test facilities are available in OHS NLCIL to perform spirometry for all miners who attend IME/PME.

# 30 Payment of additional ex-gratia of Rs. 5 lakh to the dependent of deceased contractual employees

In view of the issue raised at Para-12, he desired that Board of Directors of CIL should consider the proposal for payment of additional ex-gratia of Rs. 5 lakh to the dependent of deceased contractual employees. He suggested that suitable modality, in this context, should be fixed so that payment of additional ex-gratia of Rs. 5 lakh may be given to the dependent of deceased contractual employees at the earliest.

: Action: CMD & D(P) of CIL/SCCL/NLCIL

- 1. **CIL:** The ex-gratia of Rs 5 lakhs to the dependent of deceased contractor worker/employee has been increased to Rs 15 lakhs w.e.f. 07-11-2019.
- **2. SCCL:** In all IME / PME centers Lung Function Equipment for conducting the Lung Function Test are provided.
- **3. NLCIL**: A scheme for payment of "Death Relief" to the dependent of deceased contract workman had been instituted in NLCIL, which envisages payment of Rs. 5.0 Lakhs as solatuim for the death of the contract workman in an industrial accident apart from other statutory payments and insurance liability claims, and Rs. 10.00 Lakhs as solatuim in respect of death other than on account of industrial accidents as single source of solatuim.

# 31 Security of women employees deployed at mines: Action:

i. In view of the issue raised at Para-2, he advised that the victim of deplorable incident at Gokul OCP of WCL should be provided best medical treatment anywhere in the country. He further desired that strict legal action be pursued against the culprits. He also desired that separate toilets for women should be constructed as per requirement of statutes.

#### CMD & D(P) of CIL/SCCL/NLCIL

 CIL: Best treatment has provided to the said victim initially at Orange City Hospital, Nagpur and she has recovered. But periodical check-up for her eye is continued.

Separate toilets are provided for men and women as per statute.

- 2. SCCL: Women are employed at mines in jobs like clay pill making, housekeeping and in office. Presently, no women employee is employed belowground at the mines. However, arrangements such separate toilets, rooms and other facilities are being provided for women as per Mines Rules, 1955 in all Mines and units of SCCL and also as per the latest amendment of Mines Act, 1952.
- **3.NLCIL:** Women Employees are engaged only for the surface level works in Afforestation and construction work areas. For them temporary movable toilets have been already provided in addition to separate woman toilets provided in various buildings, areas.

# 32 Audit of Toilets constructed during Swatchh Bharat Programme by CPSUs:

i. He desired that complete Audit of Toilets constructed during Swatchh Bharat Programme by CPSUs may be done.

Action: D (P) of CIL/SCCL/NLCIL

1. **CIL:** Audit of Toilet Report constructed during Swatchh Bharat Programmecompleted by SECL, BCCL and WCL.

Audit of Toiletin the remaining companies is going on.

- **2. SCCL: 4460 Nos. of Toilets** (223 No. of Complexes, each 20 toilets) is being maintained by **SULABH INTERNATIONAL.** The toilets are in Good condition.
- **3. NLCIL:** NLCIL has constructed 1,275 toilet Blocks in Govt Schools(Tamil Nadu-1135 Nos. and Rajasthan-140 Nos.) under SwachVidhyalayAbhiyan (SVA) during 2015-16.

Third party auditing of maintenance of toilets were carried out through external agencies in the years 2017-18 and 2018-19.

Repairing of Quarter for employees & proposal for extending help for construction of self financed house:

i. all quarters should be thoroughly repaired within six months.

Action: D(P), CIL and D(P)s of subsidiaries

- i. In view of the issue raised at Para-1, Hon'ble Minister directed that all quarters should be thoroughly repaired within six months. D(P), CIL and D(P)s of subsidiaries would be personally held responsible for any deficiency in this regard.
- ii. He further suggested that all employees may be encouraged to avail home loan and subsidies under existing Government Schemes so that they can have their own home.

Action: D (P) of CIL/SCCL/NLCIL

1. CIL: Annual maintenance and repairing of company quarters as per requirement is in progress and is being review every fortnight. The repairs of all identified quarters are targeted to be completed by March, 2020.

As on 25-01-2020, repairs of 87.74% identified quarters are complete and 12.26% are going on. The rest are likely to be completed by March, 2020.

- 2. SCCL: SCCL is reimbursing the interest on Rs.10,00,000 Home loan taken by the employee, so that they can have their own house.
- **3. NLCIL:** All the residential quarters inside the NLCIL Township are kept in good habitable condition. The complaints for maintenance during the course of stay of the residents are attended then and there on reporting of the complaint by the resident. Very old quarters (more than 40 years) which are in dilapidated condition are being dismantled and not offered to the employees. A scheme for sanction of "House Building Advance(HBA)" for providing housing loan to the employees as under is existing.

Executives and Non- Unionised Supervisors	Rs. 20 Lakhs
Employees	Rs. 10 Lakhs
5 . (1	,

Rate of Interest : 9%

# Details of fatal and serious accidents in between the 43<sup>rd</sup> meeting and the 44<sup>th</sup> meeting

#### Overall in CIL:

Sl. No.	Parameters	In numbers
1	Fatal accidents	51
2	Fatalities	62
3	Serious accidents	121
4	Serious injuries	127

#### Company-wise, Fatal Accidents, Fatalities, Serious Accidents & Serious Injuries (from 21.08.2018 to 05.02.2020)

Company	Fatal Accidents	Fatalities	Serious Accidents	Serious injuries
ECL	9	10	25	27
BCCL	7	7	13	15
CCL	5	5	8	8
NCL	4	4	15	15
WCL	3	6	20	21
SECL	12	16	34	35
MCL	11	14	6	6
NEC	0	0	0	0
CIL	51	62	121	127

**2. SCCL:** Details of fatal and serious accidents after 43<sup>rd</sup> meeting (From 21.08.2018 to 31.01.2020):

SI No.	Parameters	Number
1	No. of Fatal accidents	13
2	No. of fatalities	13
3	No. of Serious accidents	209
4	No. of Serious injuries	209

**3. NLCIL:** Details of fatal and serious accidents in between 43rd meeting and 44<sup>th</sup> meeting:

Mine	Fatal	Serious
Mine I	-	-
Mine IA	1	-
Mine II	-	-
BLMP	1	-

#### Details of fatal and serious accidents for last three years & Current Year

#### **SAFETY STATISTICS:**

#### 1. DGMS: Accident Trend in coal mines in India

SI. No.	Parameters	2016	2017	2018	2019
1	Number of fatal accidents	67	56	50	44
2	Number of Fatalities	94	61	63	50
3	Number of Serious Accidents	268	183	197	68
4	Number of Serious Injuries	278	188	211	71

Note: 1.Serious injuries of fatal accidents are also considered in computation of number of serious injuries as well as rates for serious injury.

2. Figures updated as on 31.8.2019 and figures for the year 2019 are provisional.

#### (ii): Company-wise fatal accidents/ fatalities, serious accidents & serious injuries during 2016-2019 in Coal Mines

	F	atal Ad	cident	s		Fata	lities		Se	rious A	Acciden	ıts	Serious Injuries *			
	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
BCCL	1	2	4	2	12	2	6	2	6	5	6	3	6	5	6	3
CCL	6	7	5	3	6	8	8	3	7	3	5	0	7	3	13	0
ECL	1	1	1	8	35	10	2	8	19	6	9	7	20	6	10	7
MCL	2	5	8	5	2	5	8	8	4	2	2	0	4	2	4	0
NCL	4	4	4	5	4	4	4	5	9	6	7	1	11	6	7	1
SECL	1	8	1	5	11	10	16	5	23	10	9	8	24	10	11	10
WCL	6	5	4	3	6	6	7	4	17	8	1	7	17	8	13	7
GMDC	0	0	0	0	0	0	0	0	1	0	1	0	3	0	1	0
IISCO	1	0	0	1	1	0	0	1	1	0	1	0	1	0	1	0
NLC	2	1	1	2	2	1	1	2	1	0	0	0	1	0	0	0
SCCL	1	1	8	7	12	13	8	7	17	137	144	41	178	142	145	41
TISCO	2	0	0	1	2	0	0	1	1	5	0	1	3	5	0	2
GIPCL	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
ELCALTD	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
VSLPL	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
SPL	1	0	1	0	1	0	1	0	0	1	0	0	0	1	0	0
HINDALC	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
WBPDCL	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0
JAL	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0
NTPC	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Total	6	5	5	44	94	61	63	50	2	1	1	68	2	1	211	71

<sup>\*</sup> Serious Injuries of fatal accidents are also included.

Note: Figures updated as on 31.08.2019 and figures for the year 2019 are provisional.

#### 2. COAL INDIA LIMITED: Overall Accident Trend in coal mines Overall

SI. No.	Parameters	2017	2018	2019	2020*
1	Numbers of fatal accidents	34	33	30	1

2	Numbers of fatalities	37	43	34	1
3	Numbers of serious accidents	108	89	86	8
4	Numbers of serious injuries	108	98	90	10
5	Fatality Rate per Mt. of coal production	0.06	0.07	0.06	0.02
6	Fatality Rate per 3 lakhs man shifts deployed	0.16	0.18	0.15	0.09
7	Serious injury Rate per Mt. of coal production	0.19	0.16	0.15	0.16
8	Serious injury Rate per 3 lakhs man shifts deployed	0.46	0.41	0.40	0.54

Upto January, 2020

L. Company-wise Fatal Accidents (FA) and Fatalities (FY) from 2017 to 2019

Comm	20	)17	20	18	20	19
Comp	FA	FY	FA	FY	FA	FY
ECL	9	9	1	2	7	7
BCCL	2	2	2	2	6	6
CCL	5	6	5	8	2	2
NCL	3	3	3	3	2	2
WCL	3	3	2	5	2	2
SECL	7	9	12	15	6	7
MCL	5	5	8	8	5	8
NEC	0	0	0	0	0	0
CIL	34	37	33	43	30	34

• Company-wise Serious Accidents (SA) and Serious Injuries (SI) from 2017 to 2019

Comn	20	017	20	18	20	19
Comp	SA	SI	SA	SI	SA	SI
ECL	20	20 20		25	18	18
BCCL	13	13	7	7	10	12
CCL	5	5	9	16	4	4
NCL	10	10	8	8	12	12
WCL	18	18	17	17	16	17
SECL	36	36	20	21	22	23
MCL	6	6	4	4	4	4
NEC	0	0	0	0	0	0
CIL	108 108		89	98	86	90

2. Company-wise Cause-wise Fatal Accidents & Fatalities during last 3 years

			,							,							
Company YEAR		ROOF FALL /SIDE FALL		WINDING, W		WAG	TRUCKS, NON- WAGONS & TRANSPT DUMPERS M/C		EXPLO- SIVES		ELECTRI-CITY		OTHERS		TOTAL		
		Α	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F
ECI	2017	2	2	1	1	1	1	3	3	0	0	1	1	1	1	9	9
ECL	2018	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2

	2019	1	1	0	0	0	0	3	3	0	0	1	1	2	2	7	7
	2017	0	0	1	1	1	1	0	0	0	0	0	0	0	0	2	2
BCCL	2018	0	0	0	0	1	1	0	0	0	0	1	1	0	0	2	2
	2019	0	0	0	0	2	2	1	1	1	1	0	0	2	2	6	6
	2017	0	0	0	0	1	1	1	1	1	1	1	1	1	2	5	6
CCL	2018	0	0	1	1	0	0	1	1	0	0	2	2	1	4	5	8
	2019	0	0	1	1	0	0	1	1	0	0	0	0	0	0	2	2
	2017	0	0	0	0	2	2	1	1	0	0	0	0	0	0	3	3
NCL	2018	0	0	0	0	2	2	0	0	0	0	0	0	1	1	3	3
	2019	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2
	2017	2	2	0	0	0	0	0	0	0	0	0	0	1	1	3	3
WCL	2018	1	4	0	0	0	0	0	0	0	0	0	0	1	1	2	5
	2019	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	2
	2017	2	4	0	0	2	2	0	0	1	1	0	0	2	2	7	9
SECL	2018	2	3	0	0	3	3	5	5	0	0	1	1	1	3	12	15
	2019	1	2	1	1	0	0	2	2	0	0	0	0	2	2	6	7
	2017	0	0	0	0	3	3	2	2	0	0	0	0	0	0	5	5
MCL	2018	0	0	1	1	1	1	2	2	0	0	2	2	2	2	8	8
	2019	0	0	0	0	1	1	2	2	0	0	1	1	1	4	5	8
	2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEC	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CIL	2017	6	8	2	2	10	10	7	7	2	2	2	2	5	6	34	37
CIL	2018	4	9	2	2	7	7	8	8	0	0	6	6	6	11	33	43
	2019	2	3	2	2	5	5	10	10	1	1	2	2	8	11	30	34

"Others"- Includes 'fall of object / person',' fall of partings', 'Gas, dust, 'Inundation', 'Strata/Slope failure' and other miscellaneous causes.

A-Fatal Accident F-Fatality

#### 3. Company-wise Cause-wise Serious Accidents & Serious Injuries during last 3 years in CIL

Company	YEAR	F/	OOF ALL IDE ALL	WIN	LAGE, DING, VEYOR	WAG	CKS, ONS & IPERS	TRAI	ON- NSPT /C	EXP SIV	-	ELEC		ОТН	IERS	то	TAL
		Α	I	Α	I	Α	I	Α	I	Α	I	Α	I	Α	I	Α	I
	2017	2	2	1	1	1	1	2	2	0	0	0	0	14	14	20	20
ECL	2018	4	5	5	5	1	1	3	3	0	0	0	0	11	11	24	25
	2019	0	0	5	5	0	0	3	3	1	1	0	0	9	9	18	18
	2017	1	1	1	1	0	0	0	0	0	0	0	0	11	11	13	13
BCCL	2018	2	2	1	1	1	1	0	0	0	0	0	0	3	3	7	7
	2019	0	0	0	0	0	0	1	1	1	3	0	0	8	8	10	12
	2017	0	0	0	0	0	0	1	1	0	0	1	1	3	3	5	5
CCL	2018	1	1	1	1	0	0	1	1	1	2	1	1	4	10	9	16
	2019	0	0	0	0	0	0	1	1	0	0	1	1	2	2	4	4
	2017	0	0	0	0	3	3	0	0	0	0	0	0	7	7	10	10
NCL	2018	0	0	0	0	4	4	1	1	0	0	0	0	3	3	8	8
	2019	0	0	0	0	5	5	4	4	0	0	0	0	3	3	12	12
	2017	1	1	0	0	1	1	0	0	0	0	0	0	16	16	18	18
WCL	2018	3	3	3	3	2	2	0	0	0	0	1	1	8	8	17	17
	2019	2	2	1	1	2	2	3	4	1	1	2	2	5	5	16	17
	2017	5	5	0	0	3	3	5	5	1	1	1	1	21	21	36	36
SECL	2018	5	6	3	3	1	1	3	3	0	0	0	0	8	8	20	21
	2019	2	2	2	2	0	0	9	10	1	1	1	1	7	7	22	23
_	2017	0	0	0	0	1	1	0	0	0	0	0	0	5	5	6	6
MCL	2018	0	0	0	0	1	1	0	0	0	0	0	0	3	3	4	4
	2019	0	0	0	0	0	0	3	3	1	1	0	0	0	0	4	4
	2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEC	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2017	9	9	2	2	9	9	8	8	1	1	2	2	77	77	108	108
CIL	2018	15	17	13	13	10	10	8	8	1	2	2	2	40	46	89	98
	2019	4	4	8	8	7	7	24	26	5	7	4	4	34	34	86	90

Others"- Includes 'fall of object / person',' fall of partings', 'Gas, dust, 'Inundation', 'Slope/Strata failure' and other miscellaneous causes.

#### **A-Serious Accident**

#### **I-Serious Injury**

5. Company-wise Place-wise Rate of Fatalities per MT of coal production & 3 Lac Man shifts deployed during last 3 years in CIL

			Rate	of Fatalit	ies per N	ΛΤ				Rate	of Fata	lities pe	er 3 Lac	Man sh	ifts	
Comp.		Under	ground			Opei	ncast			Underg	round			Oper	ncast	
	16	17	18	19	16	17	18	19	16	17	18	19	16	17	18	19
ECL	0.77	0.59	0.23	0.65	0.70	0.12	0.00	0.02	0.14	0.12	0.05	0.16	2.94	0.50	0.00	0.13
BCCL	0.58	0.88	0.00	1.84	0.14	0.03	0.06	0.15	0.04	0.04	0.00	0.10	0.47	0.10	0.23	0.47

			Rate	of Fatalit	ies per N	ΛΤ				Rate	of Fata	lities pe	er 3 Lac	Man sh	ifts	
Comp.		Under	ground			Ope	ncast			Underg	round			Opei	ncast	
	16	17	18	19	16	17	18	19	16	17	18	19	16	17	18	19
CCL	0.00	4.17	5.41	1.74	0.07	0.06	0.09	0.02	0.00	0.26	0.35	0.23	0.18	0.18	0.27	0.05
NCL	0.00	0.00	0.00	0.00	0.05	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.31	0.24	0.26	0.18
WCL	0.35	0.39	0.84	0.24	0.08	0.02	0.02	0.02	0.10	0.11	0.25	0.07	0.14	0.03	0.03	0.03
SECL	0.48	0.41	0.46	0.21	0.02	0.02	0.06	0.03	0.20	0.19	0.23	0.11	0.13	0.23	0.53	0.29
MCL	0.97	0.00	1.11	0.00	0.01	0.04	0.05	0.06	0.21	0.00	0.28	0.00	0.09	0.44	0.56	0.61
NEC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CIL	0.54	0.52	0.52	0.43	0.09	0.04	0.05	0.04	0.12	0.13	0.14	0.12	0.42	0.19	0.23	0.18

6. Company-wise Place-wise Rate of Serious Injuries per MT of coal production & 3 Lac Man shifts Deployed during last 3 years in CIL

		ing last c	years in o	<u> </u>												
			Rate of	Serious In	juries pe	er MT				Rate of	Serious	Injurie	s per 3	Lac Mai	n shifts	
Com		Under	ground			Ope	ncast			Underg	round			Ope	ncast	
	16	17	18	19	16	17	18	19	16	17	18	19	16	17	18	19
ECL	4.89	2.11	2.73	1.83	0.17	0.06	0.03	0.02	0.89	0.44	0.62	0.45	0.70	0.25	0.12	0.13
BCCL	0.58	8.76	4.30	4.61	0.12	0.09	0.10	0.26	0.04	0.42	0.18	0.24	0.38	0.31	0.34	0.82
CCL	2.60	4.17	10.81	5.23	0.10	0.05	0.18	0.02	0.23	0.26	0.71	0.70	0.27	0.13	0.55	0.05
NCL	0.00	0.00	0.00	0.00	0.15	0.11	0.08	0.11	0.00	0.00	0.00	0.00	1.01	0.81	0.69	1.08
WCL	1.75	2.17	2.32	1.90	0.20	0.17	0.13	0.18	0.51	0.59	0.68	0.55	0.32	0.23	0.15	0.23
SECL	1.52	1.57	1.11	0.99	0.06	0.10	0.03	0.07	0.63	0.73	0.56	0.52	0.45	1.00	0.27	0.66
MCL	1.95	0.00	0.00	0.00	0.04	0.04	0.03	0.03	0.41	0.00	0.00	0.00	0.45	0.53	0.32	0.30
NEC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CIL	2.39	2.07	1.94	1.56	0.09	0.08	0.07	0.08	0.55	0.50	0.51	0.44	0.46	0.41	0.32	0.37

7. Company-wise Place-wise Fatal Accidents during last 3 years and current year in CIL

		Under	ground				ncast		•	Surfa	ace			To	tal	
Com	om 17 18 19 20 <sup>3</sup>				17	18	19	20*	17	18	19	20*	17	18	19	20*
ECL	5	1	4	0	2	0	1	1	2	0	2	0	9	1	7	1

		Under	ground			Opei	ncast			Surfa	ace			To	otal	
Com	17	18	19	20*	17	18	19	20*	17	18	19	20*	17	18	19	20*
BCCL	1	0	1	0	0	0	2	0	1	2	3	0	2	2	6	0
CCL	1	2	1	0	4	1	1	0	0	2	0	0	5	5	2	0
NCL	0	0	0	0	3	2	2	0	0	1	0	0	3	3	2	0
WCL	2	1	1	0	1	0	0	0	0	1	1	0	3	2	2	0
SECL	4	4	2	0	2	7	4	0	1	1	0	0	7	12	6	0
MCL	0	1	0	0	4	4	3	0	1	3	2	0	5	8	5	0
NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CIL	13	9	9	0	16	14	13	1	5	10	8	0	34	33	30	1

8. Company-wise Place-wise Fatalities during last 3 years and current year in CIL

Comp		Under	ground			Ope	ncast			Surf	ace			T	otal	
Comp	17	18	19	20*	17	18	19	20*	17	18	19	20*	17	18	19	20*
ECL	5	2	4	0	2	0	1	1	2	0	2	0	9	2	7	1
BCCL	1	0	1	0	0	0	2	0	1	2	3	0	2	2	6	0
CCL	2	2	1	0	4	1	1	0	0	5	0	0	6	8	2	0
NCL	0	0	0	0	3	2	2	0	0	1	0	0	3	3	2	0
WCL	2	4	1	0	1	0	0	0	0	1	1	0	3	5	2	0
SECL	6	7	3	0	2	7	4	0	1	1	0	0	9	15	7	0
MCL	0	1	0	0	4	4	6	0	1	3	2	0	5	8	8	0
NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CIL	16	16	10	0	16	14	16	1	5	13	8	0	37	43	34	1

<sup>\*</sup> Figures up to Jan'20

#### 2. SCCL:

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

SI No	Parameters	2017	2018	2019	2020*
1	Fatal Accidents	11	7	8	1
2	Fatalities	12	7	8	1

SI No	Parameters	2017	2018	2019	2020*
3	Serious Accidents	213	190	138	5
4	Serious Injuries	219	191	138	5
5	Fatality rate per Mt. Of Coal Production	0.20	0.11	0.12	0.17
6	Fatality rate per 3 lakh manshifts deployed	0.24	0.15	0.19	0.34
7	Serious Injury rate per Mt. of Coal production	3.60	2.91	2.10	0.87
8	Serious Injury rate per 3 lakh manshifts deployed	4.40	4.13	3.30	1.71

<sup>\*</sup> Note: Figures are up to 31<sup>st</sup> January, 2020.

#### b. Fatal Accidents, Fatalities, Serious Accidents & Serious Injuries during last 3 years & Current period in SCCL.

pan	F	atal A	cciden	its		Fata	lities		Se	rious	accide	ents	Se	riousl	y injui	red
Ξ_	2017	2017 2018 2019 2020				2018	2019	2020*	2017	2018	2019	2020*	2017	2018	2019	2020*
SCCL	11	7	8	1	12	7	8	1	213	190	138	5	219	191	138	5

<sup>\*</sup>Note: Figures are up to 31<sup>st</sup> January, 2020

#### c. Cause-wise Fatal accidents & Fatalities during last 3 years & Current Period in SCCL.

Company	Year	Roof Fall/	side fall	Haulage, Winding.	Conveyor	Trucks,	Dumpers	Non-	Transport M/c.		Explosives		Electricity		Officers		lotal
		Α	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F
	2017	1	1	2	2	3	3	2	2	-	-	-	-	3	4	11	12
SCCL	2018	-	-	-	-	3	3	-	-	-	-	-	-	4	4	7	7
3001	2019	1	1	1	1	1	1	-	-	-	-	-	-	5	5	8	8
	2020*	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1

<sup>\*</sup> Note: Figures are up to 31<sup>st</sup> January, 2020 A = Accident F = Fatality.

d. Cause-wise Serious accidents & Serious Injuries during last 3 years & Current Period in SCCL.

Company	Year	Roof Fall/	side fall	Haulage,	Conveyor	Trucks,	Dumpers	Non-	M/c.	Evalocitos	Explosives	Clockicity	דופרווכונא	9440		Total	
Com		Α	I	Α	I	Α	I	Α	I	Α	I	Α	ı	Α	ı	Α	_
	2017	15	18	20	20	6	6	8	8	1	2	-	-	163	165	213	219
SCCL	2018	13	13	29	29	3	3	7	7	-	-	ı	ı	138	139	190	191
3001	2019	11	11	25	25	4	4	1	1	-	-	1	1	96	96	138	138
	2020*	-	- ct	1	1	1	1	-	-	-	-	-	-	3	3	5	5

<sup>\*</sup> Note: Figures are up to 31<sup>st</sup> January, 2020

A = Accident I = Injured.

e. Place-wise rate of Fatalities per million 47one of coal production & 3 lakh manshifts deployed during the last 3 years & Current Period in SCCL.

کر				Per N	/l. Te.						Per	3 lakh	mans	hifts		
pai	ı	<b>Jnder</b>	groun	d		Ope	ncast			Under	groun	d		Ope	ncast	
Com	2017	2018	2019	2020*	2017	2018	2019	2020*	2017	2018	2019	2020*	2017	2018	2019	2020*
SCCL	0.47	0.22	0.44	0.00	0.13	0.07	0.05	0.20	0.15	0.08	0.19	0.00	0.37	0.21	0.17	1.05

<sup>\*</sup>Note: Figures are up to 31<sup>st</sup> January, 2020

f. Place-wise rate of Serious Injuries during the last 3 years& Current Period in SCCL.

کر				Per M	. Te.						Per	3 lakh	mans	hifts		
pai		Underg	ground			Ope	ncast			Under	groun	d		Ope	ncast	
Com	2017	2018	2019	2020*	2017	2018	2019	2020*	2017	2018	2019	2020*	2017	2018	2019	2020*
SCCL	21.09	17.51	12.10	4.01	0.52	0.44	0.30	0.40	6.51	6.46	5.14	1.73	1.43	1.33	0.96	2.11

<sup>\*</sup>Note: Figures are up to 31<sup>st</sup> January, 2020

g. Place-wise Fatal accidents & Fatalities during the last 3 years& Current Period in SCCL.

Year	Underg	round	Opei	ncast	Surfa	ce	Tot	tal
rear	Accident	Fatality	Accident	Fatality	Accident	Fatality	Accident	Fatality
2017	4	4	6	7	1	1	11	12
2018	2	2	4	4	1	1	7	7
2019	4	4	3	3	1	1	8	8
2020	-	-	1	1	-	-	1	1

<sup>\*</sup> Note: Figures are up to 31<sup>st</sup> January, 2020

#### h. Place-wise Serious accidents & Serious Injuries during the last 3 years& Current Period in SCCL

	Underg	round	Open	cast	Surf	ace	Tot	al
Year	Accident	Injuries	Accident	Injuries	Accident	Injuries	Accident	Injuries
2017	174	179	27	27	12	13	213	219
2018	156	157	25	25	9	9	190	191
2019	109	109	17	17	12	12	138	138
2020*	3	3	2	2	-	-	5	5

<sup>\*</sup> Note: Figures are up to 31<sup>st</sup> January, 2020

#### 3. NLCIL: Details of fatal and serious accidents for last three years and current year:

	Mine	2016	2017	2018	2019
	Fatal	-	-	-	-
Mine I	Serious	-	-	-	-
	Reportable	-	-	-	-
	Fatal	-	1	-	1
Mine IA	Serious	-	-	-	-
	Reportable	-	-	-	-
	Fatal	2	-	1	-
Mine II	Serious	1	-	-	-
	Reportable	-	-	-	-
	Fatal	-	-	-	1
BLMP	Serious	-	-	-	-
	Reportable	-	-	-	-

#### TATA STEEL: SAFETY STATISTICS IN TATA STEEL (JHARIA DIVISION)

# 1. Overall fatality rate and serious injury rate per million ton of coal production and per 3 lakh man shift deployed in Tata steel

#### **Jharia Division**

Sl. No.	Parameters	2016	2017	2018	2019(till 31 <sup>st</sup> Aug)
1	Number of fatal accidents,	1	0	0	1
2	Number of fatalities	1	0	0	1
3	Number of serious accidents	0	4	0	2
4	Number of serious injuries	0	4	0	2
5	Fatality rate per Mt. of coal production	0.63	0	0	0.46
6	Fatality rate per 3 lakh man shifts deployed	0.15	0	0	0.15
7	Serious injury rate per Mt. of coal production	0	2.64	0	0.92
8	Serious injury rate 3 lakh man shifts deployed.	0	0.63	0	0.30

#### **West Bokaro Division**

Sl. No.	Parameters	2016	2017	2018	2019(till 31 <sup>st</sup> Aug)
1	Number of fatal accidents,	01	Nil	Nil	Nil
2	Number of fatalities	01	Nil	Nil	Nil
3	Number of serious accidents	01	Nil	Nil	02
4	Number of serious injuries	02	Nil	Nil	02
5	Fatality rate per Mt. of coal production	0.198	Nil	Nil	Nil
6	Fatality rate per 3 lakh man shifts deployed	0.311	Nil	Nil	Nil
7	Serious injury rate per Mt. of coal production	0.394	Nil	Nil	0.587
8	Serious injury rate 3 lakh man shifts deployed.	0.622	Nil	Nil	0.757

#### 2. COMPANY-WISE FATAL ACCIDENTS, FATALITIES, SERIOUS ACCIDENTS & SERIOUS INJURIES DURING LAST THREE YEARS.

#### Jharia Division

		Fatal	Accid	ents		Fa	taliti	es		Seri	ous A	ccidents		Seri	ous Injur	ies
Company	2016	2017	2018	2019(Till31s t(Aug)	2016	2017	2018	2019(Till31s t(Aug)	2016	2017	2018	2019(Till31s t(Aug)	2016	2017	2018	2019(Till31s t(Aug)
Tata Steel, Jharia Division (Sijua Colliery)	1	0	0	1	1	0	0	1	0	4	0	2	0	4	0	2

#### **West Bokaro Division**

		2016 2017 2018 2019(Till31 st(Aug)				Fa	taliti	es		,	Serio Accid			Serio	us Injurie	es
Company	2016	$\vdash$	2018	2019(Till31 st(Aug)	2016	2017	2018	2019(Till31 st(Aug)	2016	2017	2018	2019(Till31 st(Aug)	2016	2017	2018	2019(Till31 st(Aug)
Tata Steel (West Bokaro Division)	01	Ni I	Ni I	Nil	0	Ni I	N il	Nil	0	Ni I	N il	02	02	Nil	Nil	02

#### 3. COMPANY-WISE CAUSE-WISE FATAL ACCIDENTS & FATALITIES DURING LAST 3 YEARS.

#### Jharia Division

Company	Year	Roof fall/side	fall	Haulage, Winding,	Conveyor	Trucks,	Dumpers	Non-	Transport M/C	Explosives		Electricity		Others		Total	
		Α	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F
Tata Steel,	2016	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Jharia Division	2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(Sijua Colliery)	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2019 (Till 31 <sup>st</sup> Aug)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A= Accident, F= Fatality

#### **West BokaroDivison**

Company	Year	Roof fall/side	fall	Haulage, Winding,	Conveyor	Trucks,	Dumpers	Non-	Transport M/C	Explosives		Electricity		Others		Total	
		Α	F	А	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F
Tata Steel	2016	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
(West Bokaro Division)	2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Division	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2019 ( Upto Aug,19)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

#### **West Bokaro Division**

		Fatal	Accid	ents		Fa	taliti	es		,	Serio Accid			Seriou	ıs Injurie	S
Company	2016	2017	2018	2019(Till31 st(Aug)	2016	2017	2018	2019(Till31 st(Aug)	2016	2017	2018	2019(Till31 st(Aug)	2016	2017	2018	2019(Till31 st(Aue)
Tata Steel (West Bokaro Division)	01	Ni I	Ni I	Nil	0	N il	N il	Nil	0	Ni I	N il	02	02	Nil	Nil	02

#### 3. COMPANY-WISE CAUSE-WISE FATAL ACCIDENTS & FATALITIES DURING LAST 3 YEARS.

#### **Jharia Division**

Company  Tata Steel,	Year	Roof fall/side	fall	Haulage, Winding,	Conveyor	Trucks,	Dumpers	Non-	Transport M/C	Explosives		Electricity		Others		Total	
Jharia		Α	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F
Division	2016	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
(Sijua	2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Colliery)	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2019(Till 31 <sup>st</sup> Aug)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A= Accident, F= Fatality

#### West BokaroDivison

Company  Tata Steel	Year	Roof	fall/side fall	Haulage, Winding,	Conveyor	Trucks,	Dumpers	Non-	Transport M/C	Explosives		Electricity		Others		Total	
(West		Α	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F	Α	F
Bokaro	2016	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Division)	2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2019 (	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Upto																
	Aug,19)																

#### Analysis of major accidents that occurred during last one year and status of inquiry&ActionTaken:

#### **CIL: Bharatpur OC Mine Accident**

#### General information about the Mine:

Company	MCL	Area	Bharatpur	Mine	Bharatpur Opencast
Mine code	010687	Post office	N.S.Nagar	PS	Colly. Police Station No.4
District	Angul	State	ODISHA	Pin code	759148

#### Date, Time, Shift, Cause and Place of Accident:

Date	Time	Shift	Cause	Place	Fatality
23/07/2019	10.30 PM	3 <sup>rd</sup>	Slide of OB Dump	OC; North Quarry floor of Coal Seam II	4

#### Compensation, Ex-Gratia etc. paid to the next of kin of the deceased: (Figure in Rs)

Name of deceased Cont. Worker	As per W.C. Act	Ex-Gratia for fatal accident as per CIL guidelines	Special Ex-gratia announced by State Govt.	Payment of funeral	CMPF and Gratuity as per provision
PapunBiswal	8,06,640.00	5,00,000.00	5,00,000.00	5000.00	2.5 Lakh
Ramesh Chandra Das	5,56,520.00	5,00,000.00	5,00,000.00	5000.00	2,07,683
R RBehera	8,61,120.00	5,00,000.00	5,00,000.00	5000.00	2.5 Lakh
Raj Kishore Mahapatra	7,58,240.00	5,00,000.00	5,00,000.00	5000.00	Not qualified as joined on 20.7.19

**Location:** Bharatpur OCP started on 5<sup>th</sup> April 1985 and is situated in Talcher Coalfields in the Angul district of Odisha under Mahanadi Coalfields Limited. Its location is between latitude 20°56′35″ and 20°58′40″ N and longitude 85°06′30″ & 85°08′40″ E nearest Railhead, Talcher Railway station (E.Co. Railway) is about 15 km away from the mines. State capital Bhubaneswar is about 150 km away from the mines.

**Geology:** A total no of 131 holes have been drilled in 6.81 Sq km geological area yielding borehole density of 19 per sqm involving a drilling of 15457.40. The block is geologically completed as numbers of faults have traversed the area and having 4 seams namely Talcher I.II, III and IV.

#### **Occurrence of Accident:**

Around 10.30pm on 23.07.19, the left out coal barrier retaining the old OB dump opposite to the work site at the high-wall suddenly collapsed and the massive boulders of the coal barrier along with muck and debris in rushed along the floor, towards the high-wall side. The information regarding the accident was flashed to all key mine officials and subsequently to Area & HQ.

At the time of accident, one (01) surface miner, 04(four) nos. of Pay loaders and 05(Five) nos. of tippers with operators including one supervisor, one Pump khalasi& one security guard, were at the active working zone. Out of total 13(Thirteen) persons, who were present at work site at the instant of accident, 09 work persons could escape whereas 04 work persons could not finally escape and got trapped and buried under the flowing debris & muck. The escaped work persons took shelter on a nearby OB dump adjacent to the high-wall and were subsequently rescued safely.

#### **Rescue & Recovery Work:**

Rescue operation was started immediately by the RRRT Talcher. Also the NDRF team was joined the Rescue Recovery operation on 24/07/2019. The sniffer dog squad was also put in search operation by NDRF. 01 no. of dead body was recovered by afternoon of 24/07/2019. The 2nd and 3rd dead bodies were recovered on 26/07/2019. The 4th and final dead body was recovered on 05/08/2019.

#### Gist of Analysis and findings:-

- A coal barrier was left in seam II at the floor against the old workings measuring about 35m height and about 250m stretch. The width of the barrier at the top being 17.30m and 64.11m at the floor. At the top of coal barrier, a hard parting of OB of about 11m was also left, the top of which was of varied width.
- The OB was dumped in the void between old OB Dump slope and left out coal barrier and the height of the OB dump was increased which ultimately merged with the old OB dump with formation of benches.
- This created an artificial coal barrier retaining the old OB dump. The stretch between the coal barrier and the coal working face along the high-wall side was about 130-140m.
- The ultimate height of OB dump against the barrier was about 93m, and a no. of vertical cracks was developed in the coal barrier.
- However, for reaching a conclusive understanding for actual Geo Technical contribution in ultimate failure of the strata in the left out coal barrier that triggered the massive failure of the OB dump, needs a special and specific in-depth scientific study by an expert agency.

#### **Recommendations for Corrective actions:**

- 1. As far as practicable, workings should be done in compliance with the work permission and in compliance with the statutory restrictions.
- 2. The available Geo Technical data as per Geological Report, Project Report, Mining Plan, Borehole logs, Geological Plans & Sections etc. should be closely studied.
- 3. Important Geological features, its orientations & location w.r.t. actual operation/excavation in coal and OB should be correlated, marked on mine working plans and should be closely observed vis-a-vis progress of the moving front and dump slope, particularly in case of internal dumping.
- 4. The High-wall and Dump slope configuration should be designed, implemented and followed on the basis of mine and quarry specific scientific study.
- 5. Monitoring of such Dump and High-wall slopes should be well planned and implemented and recorded and all dumps should be regularly inspected by Key Mine Officials through a well-planned and structured schedule and record should be made thereof.
- 6. Proper drainage system should be made to avoid accumulation of water on any part of the dump or free flow of water over dump slopes.
- 7. As far as practicable, proper care should be taken for adequate compaction of OB dump, layer by layer during its formation itself.
- 8. Dumping over any swampy/marshy floor should be strictly avoided.
- 9. As far as practicable, coal barrier should not be left or formed against any OB dump at any level of extraction to artificially retain such dumps.
- 10. The stability of dump and high-wall slope should be incorporated in the SMP of the mine as one of the Principal Hazards.

- 11. The distance of the workings in any quarry from the toe of any back-filled dump, whether active or old, should be planned, designed and maintained, on the basis of recommendation of scientific study.
- 12. Care should also be taken that any carbonaceous parting material, rejects or coal is not dumped in OB dump as a mix.
- 13. Extra care and precautions should be taken in case of fiery high-wall and OB dumps.
- **2. SCCL:** There was no any major accidents occurred during last 1 year.

#### 3. NLCIL:

No. of fatal injuries : 02 (as on 01.09.2019)

No. of Serious injuries: Nil

2019	2	Fatal	Done	Fatal accident: 1 occurred on 30.01.2019 to Shri K. Rasalingam,  Dy. GM/Mechanical  1. Safe Operating Procedures is framed for each and every activity and strictly implemented.  2. After the completion of work, all the persons shall be instructed to move away from the drain and protective fencing shall be done on both sides and Supervisor himself shall not enter into the potentially danger area.  3. Drain cutting shall not be done in single cut to the final depth of water body; it shall be cut step by step for reducing water level.
		Fatal	Done	<ol> <li>Fatal accident: 2 occurred on 04.06.2019 to Shri Dalpat Singh, Contract Operator         <ol> <li>Safety audit of contractual working and machinery done every month by a committee of senior mine officials and it is to be continued.</li> <li>Safety management plan is also being reviewed periodically.</li> <li>Mock drill on First-Aid is being carried out every month and it is to be continued.</li> <li>Special drive conducted for strengthening of all the existing berm/parapet in mine and all the new berms will be prepared with in-situ lignite or OB.</li> <li>Portable light weight stretchers will be placed at conspicuous places inside mine.</li> <li>Comprehensive checking of Water Sprinklers is done during periodic inspection and it is to be continued.</li> </ol> </li> <li>Special training for water tanker operators arranged every month and it is to be continued.</li> </ol>

#### Risk assessment & Management:

#### Coal India Itd. (CIL):

- (i) No of Mines Covered:
  - All producing mines of CIL and its subsidiary have been covered. Risks assessment based Safety
    Management Plan (SMP) is the major stride towards self-regulation in a coal mine, which is statutory
    requirement as per CMR-2017.

#### (ii) Major Activities Completed:

- 1. Preparation of Safety Management Plan (SMP) based on risk assessment including Principal Hazard Management Plan (PHMP).
- 2. Identification of control measures for mitigation of identified hazards and associated risks.

Some of the major activities covered as per SMP for underground mines are:

- Strata Control Management
- 2. Fire / Spontaneous Heating Management
- 3. Danger of in-rush of water
- 4. UG Transport
- 5. Gas Monitoring
- 6. Drilling & Blasting Operation
- 7. Fall of persons

Some of the major activities covered as per SMP for opencast mines are:

- 1. Traffic Management
- 2. Slope Stability of bench &OB dumps
- 3. Risks associated with use of electricity
- 4. Lighting arrangement
- 5. Use of bulk explosives
- 6. Safety of contractor's worker

#### (iii) Action Taken:

- Imparting Specialised Training to support in preparation of Risk Assessment based SMP: Executives who have been trained by SIMTARS, Australia are engaged for imparting training and upgrading knowledge of mine level employees so that they can identify the hazards &the associated risks and prepare the Risk assessment based Safety Management Plans (SMP).
- Preparation and implementation of Safe Operating Practices (SOP) for different operations in mines.
- Steps are taken to implement Control measures recommended in the Risk assessment based Safety Management Plans (SMPs).
- Periodic review of SMP is being done at various level.
- Safety Audit conducted.

#### 2. SCCL:

#### a) Number of Mines covered: All Mines covered.

SCCL has utilised the expertise of the Australian mining industry for adopting and implementing Safety Management System in SCCL mines by Training a team of 10 executives at SIMTARS, Australia on Risk assessment based Safety Management System, under the program of "Train the Trainers".

#### b) Major Activities completed:

All mines of SCCL have well documented SMP prepared and implemented. They shall be revised in line with the provisions of the DGMS Circular No. 5 of 2016. Two Safety Management Training Centers (SMTC) have been

established at Ramagundam and Bellampalli regions. Each SMTC is at present manned by 3 SIMTARS accredited trainers. Training material has been prepared following the SIMTARS, Australia standards. These Training centres are being used for 4 day training of workmen, competent persons, supervisors, and officers.

c) Action Taken: In the process, they standardised the SMP development process for SCCL. Safety Management Plans of all operating mines are prepared and submitted.

Training on "Development and Implementation of SMP" is being imparted to the Safety Management Teams of the concerned mines by the SIMTARS accredited trainers. Presently, training for 17 mines is completed.

#### Trainings conducted at SMTC, RG-II: 13

Sl. No.	Mine	From	То
1	OCP-III,RG-II	28/01/2019	31/01/2019
2	OCP-II,RG-III	08/04/2019	12/04/2019
3	GDK 1&3 Inc, RG-I	29/04/2019	03/05/2019
4	VKP Mine, RG-II	13/05/2019	16/05/2019
5	ALP Mine, APA	17/06/2019	20/06/2019
6	GDK 2&2A Inc, RG-I	12/08/2019	16/08/2019
7	GDK 7 LEP, RG-II	26/08/2019	29/08/2019
8	MOCP,RG-II	16/09/2019	19/09/2019
9	GDK 1&3 Inc, RG-I	25/09/2019	28/09/2019
10	RG OC-I	04/11/2019	07/11/2019
11	KTK - 5	12/11/2019	15/11/2019
12	KTK - 1	19/11/2019	22/11/2019
13	KTK - 6 / KLP	25/12/2019	28/12/2019

#### **Trainings conducted at Corporate: 03**

Sl. No.	Mine	From	То
1	JK 5 OC / KOC, YLD	18/11/2019	21/11/2019
2	JVR OCP, KGM	26/11/2019	29/11/2019

#### Trainings conducted at SMTC, MMR: 02

SI. No.	Mine	From	То
1	KK OC / RKOC, MMR	21/01/2020	24/01/2020
2	KK - 1/ RK - 1A, MMR	29/01/2020	01/02/2020

Total Mines covered: 21 as on 31.01.2020.

#### 3. NLCIL: Risk Assessment & Management

No. of Mines covered	Major activities completed	Action taken						
	Preparation of Safety Management Plans	The potential hazards identified in Safety						
	for all divisions under Reg. 104 of CMR	Management Plan are being mitigated as per						
	2017 is completed.	defined mitigation measures in SMP.						
4	Submission of Safety Management Plans	The Provisions of Reg. 104 of CMR 2017 are fully						
	to DGMS as per the provisions of	complied with and copy of Safety Management						
	Regulation 104 of Coal Mines Regulations	Plan submitted to DMS/Chennai region and						
	2017.	DMS/Ajmer region.						

SIMULATOR based training	Letter of Award (LoA) was issued on 30/07/2018 and the work is under progress.
Review of Safety Management Plans is done	Being carried out regularly once in a quarter.
Safety Audits	Conducted regularly Once in a quarter.

#### 4. Odisha Coal & Power Ltd. (OCPL):

- (i) No. mines covered: 01 (Manoharpur Coal Mine Project)
- (ii) Major activities completed:

Based on Risk Assessment Process, the Safety Management Plan incorporating Safety and Occupational Health Policy has been prepared. The same has been submitted to Director of Mines Safety, Chaibasaregionon 14-03-18 for modifications.

(iii) Action taken:

The mitigation measures suggested in SMP is followed and regularly being discussed in various forums like Pit Safety Committee and Safety tool box talk. However, M/s Bureau Veritas Industrial Services (India) Ltd has been engaged on 08-11-2029for three financial years to conduct gap analysis workshop, review and modifications in existing Safety Management Plan, training & handholding.

- **5. DVC:** Risk assessment & management:
  - i) We have only one mines i.e. DVC BERMO MINES
  - ii)Risk assessment & Management plan has been made in line with B&K area of CCL. AS the collieries of B&K area are nearer to our mines.

#### 6. TATA STEEL: Risk Assessment & Management

#### **Jharia Division**

#### Jharia Division

- 1. No. of Mines Covered Safety Management Plan has been completed for all mines of Tata Steel, Jharia Division risk Assessment Methodology of ISO-45001-2018 version (Occupational Health & Safety Assessment Series) has been adopted in all underground mines of Jharia Division including all Surface works. Assessment was conducted by IRQS auditors wherein Jharia Division passed the re certification/revalidation audit.
- 2. Major activities completed Critical areas and critical activities were identified. Hazards associated with them were evaluated and action plans has been made to make the activities safe. Also actions have been taken in the areas of fall of persons, Operation and Maintenance of equipment, MMV, Belt Conveyor, Pump and transportation of material, as these were identified as major risk.
- **3.** Technological Intervention- Introduction of Continuous Miner and Road Header as alternative to drilling and blasting. Introduction of Manrider System in Jamadoba, 6&7 Pits ,Sijua. Installation of manrider system is in progress at Digwadih Colliery.

#### **West Bokaro Division**

- 1. No. of Mines Covered Risk Assessment Methodology of OHSAS-18001-2007 version (Occupational Health & Safety) Assessment has been adopted in West BokaroDivison including all Opencast Mine. Major activities completed Critical areas and critical activities were identified. Hazards associated with them were evaluated and action plans has been made to make the activities safe. Also actions have been taken in the areas of fall of persons, peration and Maintenance of HEMM, Fly rock during blasting, Belt Conveyor, Dump yard and transportation of material, as these were identified as major risk.
- 2. Technological Intervention Introduction of Continuous Miner and Road Header as alternative to drilling and blasting. Introduction of Manrider System in Jamadoba, 6&7 Pits ,Sijua. Installation of manrider system is in progress at Digwadih Colliery.

## Requirement of statutory manpower and steps taken to fill up

1. CIL:Company-wise, Statutory Manpower Status as on 01.01.2020

		Overma	n	Mining Sirdar		Electrical Supervisor		Surveyor				
Comp.	On	Dogd	Short/	On	Doad	Short/	On	Dond	Short/	On	Dond	Short/
	Roll	Reqd	Surpl.	Roll	Reqd	Surpl.	Roll	Reqd	Surpl.	Roll	Reqd	Surpl.
ECL	897	992	-95	1188	1288	-100	347	545	-198	192	192	0
BCCL	720	772	-52	479	622	-143	685	881	-196	110	135	-25
CCL	597	701	-104	702	809	-107	460	529	-69	185	193	-8
WCL	823	887	-64	1258	1256	2	663	645	18	134	131	3
NCL	486	519	-33	129	201	-72	148	148	0	51	61	-10
SECL	1114	1265	-151	1551	1903	-352	857	979	-122	187	194	-7
MCL	473	662	-189	225	507	-282	414	572	-158	67	118	-51
NEC	18	39	-21	46	68	-22	8	10	-2	6	6	0
CIL	5039	5837	-709	5578	6654	-1076	3582	4309	-727	932	1030	-98

#### 2. SCCL:Requirement of Statutory manpower and steps taken to fill up the shortage:

#### **MINING EXECUTIVES:**

Category	Requirement	MOR as on 31.12.19	Variance (+/-)
Executives	940	882	-58

Internal selection of 26 MGT (Internal) examination conducted on 05.04.2019 held up due to court case.

#### MINING SUPERVISORY STAFF:

Category	Requirement (2019-20)	MOR as on 31.12.2019	Variance (+/-)	
Overman	1060	758	-302	
Mining Sirdar	479	561	82	
Shot firer	880	1016*	136	
Total 2419		2335	-84	

<sup>\* 780</sup> Mining diploma holders acquired Overman certificate are being utilised as Shot firer / Mining Sirdar to get experience before deployment them as Overman. They will be given authorization to work as Overman against the vacancy.

#### • Notification will be issued for recruitment of 125 JMETs(MS+SF) for future requirement.

#### SURVEYOR:

Category	Requirement	MOR as on	Variance
	(2019-20)	31.12.2019	(+/-)
Surveyor	199	217*	18

<sup>\*</sup> Including 52 Surveyor Trainees (External).

#### **E&M Supervisors:**

Category	Requirement (2019-20)	Men On Roll as on 31.12.19	Variance
	(2019-20)	31.12.19	(+/-)
Ele. Supervisors	382	351	-31#
Mech. Supervisor	401	337	-64@

#### **ELECTRICAL SUPERVISORS:**

# Against shortage of 31 AFM (Electrical), recruitment of 25 AFM(Electrical) through external diploma holders is under process. Recruitment of 30 Ch. hand (Ele) was completed on 27.11.2019 and orders issued.

#### **MECHANICAL SUPERVISORS:**

- @ Recruitment of 20 AFM (Mech.) diploma holders Internal exam conducted on 24.11.2019. Orders issued, yet to be reported. Recruitment of 68 AFM (Mech.) diploma holders from Internal which has held up due to court case.
- **3. NLCIL**:NLCIL Mines, there is no shortage of Manpower to take care of the statutory requirements.
- **4. Odisha Coal & Power Ltd. (OCPL):** Availability of statutory personnel are being ensured. Some of the appointments are going on.
- **5. DVC**: There is a shortage of statutory manpower and every step have been taken from our DVC HQ Kolkata for the overcome of shortage.

#### 6. TATA STEEL

Category	Appointment made during 2018	Existing as on 31.12.2018	Requirement as on 31.8.2019	Existing strength as on 30.08.2019
Asst. Mgr. (1-st class)	00	10	5	9
Asst. Mgr. (2-nd class)	1	29	23	26
Over man	4	95	87	95
Mining Sirdar	00	183	136	175
Surveyor	01	8	8	8

#### WEST BOKARO DIVISION

Category	Appt. made during 2018-19	Existing as on 31.12.2018	Requirement as on 31.8.2018	Existing strength As on 31.8.2018
Asst. Mgr. (1-st class)	1	10	12	12
Asst. Mgr. (2-nd class)	5	17	29	22**
Over man	0	25	32	24**
Mining Sirdar	1	32	34	33
Surveyor	1	04	06	5**

<sup>\*\*</sup> RECRUITMENT OF ASSISTANT MANAGER, OVERMAN AND SURVEYOR IS IN PROGRESS.

# 7. M/s. Ambuja Cements Ltd(Gare Palma-IV/8): No shortage of statutory manpower. Details of available manpower is as follows:

Designation	Requirement	Available	Shortage/ Surplus
Asst. Manager (FCC)	04	04	Nil
Under Manager (SCC)	06	09	+3
Overman	06	09	+3
Mining Sirdar	09	09	Nil
Surveyor	02	03	+1

# Safety Budget and its utilization:

## 1. CIL: Company-wise total Funds allocated &Utilized for Safety in last 3years and current year

(Figures in lakh rupees)

	Year 2016-17		Year 2017-18		Year 2018-19		Year 2019-20	
Company	Funds allocated	Utilized	Funds allocated	Utilized	Funds allocated	Utilized	Funds allocated	Utilized (upto 3 <sup>rd</sup> quarter)
ECL	22304	18078	22605	17092	20214	13933	17148	13395
BCCL	23474	18628	21929	18016	19478	9219	15514	10356
CCL	2250	1924	2700	2141	1764	825.45	2332	2042
NCL	6632	5780	9795	9565	11300	7096.51	11200	6074
WCL	10891	10511	9000	9065	8400	5848	13100	6395
SECL	21500	19271	19751	17735	18100	17644	24479	14010
MCL	6095	6015	6649	6415	6774	5326	7794	5328
Total	93146	80207	92429	80029	86030	59891.96	91567	57600

# 2. SCCL:Safety budget and its utilization for the years 2017-18, 2018-19 and 2019-20 (up to Nov., 2019).

(In Rs. Lakhs)

Voor	Capital		Revenue		
Year	Budget	Actual Expenditure	Budget	Actual Expenditure	
2017-18	1365	1133	79670	81870	
2018-19	961	1034	96043	104863	
2019-20 (up to Dec., 2019)	700	450		62171	

(In Rs. Lakhs)

Year		Capital		Revenue
	Budget	Actual Expenditure	Budget	Actual Expenditure
2017-18	1365	1133	79670	81870
2018-19	961	1034	96043	104863
2019-20 (up to Aug., 2019)	700	112	30925	34403

#### 3. NLCIL: Safety Budget and its utilization (rupees in Lakhs)

Year		Capital	Revenue		
Budget Actual Expenditure.		Budget	Actual Expenditure.		
2016-17	1419.00	592.00	550.00	512.23	
2017-18	1700.00	00.00	552.00	552.00	
2018-19	432.00	341.28	598.00	501.26	

<sup>\*</sup> as on quarter ending June 30th 2019.

#### 4. Odisha Coal & Power Ltd. (OCPL): Safety Budget and its utilisation.

Year	SAFETY BUDGET in Rs.	UTILIZATION
2018-19	2,23,20,000.00	4,16,632.00
2019-20	1,56,40,000.00	5,95,568.00 (till date)

#### 5. DVC: Safety Budget and its utilization: -

Sufficient budget provision is available for expenditure on safety and for the procurement of safety items/equipment and all-important measures have been taken to ensure for maximum utilization of safety budget. No safety work has so far been hampered due to non-availability of budget.

- **6. M/s. Ambuja Cements Ltd(Gare Palma-IV/8):** Total safety budget is Rs11 cr (approx.), of which 4.5 cr has been spent so far.
- **7. TATA STEEL:** THERE IS NO BUDGETARY RESTRICTION ON EXPENDITURE FOR SAFETY. WHATEVER IS NECESSARY FOR SAFETY IS BEING SPENT WITHOUT ANY LIMITATION.

#### Occupational Health hazards and health Risk

- 1. **DGMS:** Note on Occupational health hazard and health risk.
  - a) In coal mines, there is a health hazard & risk to the mine workers mainly due to un-safe and polluted working conditions at the work place resulting into health hazards and occupational diseases.
  - b) The persons employed in the mines are exposed to a number of hazards at work, which adversely affect their health. Some of the important Hazards are: Dust, mine gases, noise,
  - c) Heat& humidity, vibration, ergonomic hazard, arduous travel, radiation resulting into occupational diseases. Following diseases have been notified as the diseases connected
  - d) with mining operations for the purpose of sub-section (1) of Section 25 of the Mines Act, 1952: Silicosis, Pneumoconiosis, Manganese Poisoning- Nervous type, Asbestosis, Cancer of lung or the stomach or the pleura and peritoneum (i.e. mesothelioma), Noise induced hearing loss, Contact Dermatitis caused by direct contact with chemicals and Pathological manifestations due to radium or radioactive substances.
  - e) The efforts are being taken to improve work place environment by strict enforcement of provisions of CMR, 2017, conducting awareness programmes. The provisions of Mines Rules, 1955 are also being enforced to identify the persons contacted by occupational diseases. All the persons employed in a mine directly or through contractor are undergoing initial and periodical medical examination even at an interval shorter than that specified in the Mines Rules, 1955. The action is being taken by issuing violation letters and discussing the matter in Bi-partite and Tri-partite forum for provision of ILO trained doctors and facilities such as audiometry, spirometer and proper analysis of chest radiographs.
  - f) Fresh initiatives such as mechanization to reduce personal exposure to risks, standardization of materials & equipment including personal protective equipment (PPE) and use of latest instruments and system in environmental monitoring are also being undertaken. To get a complete picture of the occupational health status in Indian coal mines, there is a strong need to undertake occupational health surveillance in a big way and as per the international standards and guidelines. This will help in assessment of the situation and to identify the thrust areas in this regard. Steps have been taken in this direction with the help of mine owners/ mine management and institutes like NIMH/NIOH.

#### 2. CIL: Occupational Health hazards and health Risk

- CIL has well-established Occupational Health Services (OHS) for early detection of Occupational diseases and for conducting Initial Medical Examination (IME) & Periodical Medical Examination (PME) as per statutory requirement of its employees including contractor's workers.
- In CIL, there are 70 Hospitals with 4405 Beds, 360 Dispensaries, 523 Ambulances and 1160 Doctors including Specialists to provide medical services to the employees and their families.
- 3. **SCCL:** Occupational Health Hazards and Health Risks:

In SCCL, all Periodical Medical Examination (PME) Centers have been equipped with required medical appliances and personnel. Doctors, in charge of PME centers have been trained in occupational health. Due importance is being given for detection of occupational diseases at early stages and all the workers are undergoing PME. Notified occupational diseases, if any, are being reported scrupulously.

Year	Pneumoconiosis
2015	01
2016	02
2017	02
2018	01
2019	

- Occupational Diseases Board was constituted, regular meetings are held and its recommendations are followed/ implemented. All the doctors working in PME centers are trained in OHS.
- > There are 12 PME centers. Comprehensive health cards for each workman integrating their working conditions with their health profile are being prepared. IME is being done to all departmental and contract workmen before deploying them for duty, PME is being done to the employees below 45 years of age once in every 5 years and once in two and half years to all those employees above 45 years of age.
- A study on occupational health management was conducted in SCCL by Ex-DMS (Medical) and report submitted thereupon was circulated among Area General Managers for implementation.

#### 3. NLCIL:

- NLCIL conducts Periodic Medical Examination of miners once in 3 years for all age group employees including contract workmen.
- NLCIL achieves Zero incidence of Coal Workers Pneumoconiosis through strict surveillance of occupational health and well being of miners once in 3 years as per DGMS guidelines and by adhering with ILO standards for chest X-ray.

#### 4. Odisha Coal & Power Ltd. (OCPL): Occupational health hazards and health risk-

The occupational health hazards and associatedhealth risks have been identified in SMP. The mitigation measuresas suggested in SMP are being taken up.

**5. DVC:**Sufficient infrastructural facilities are available at DVC to diagnose the occupational health Hazards. Initial and periodical medical examinations are being carried out on regularly. Constant monitoring is being done for dust suppression by water spraying and using protective devices.

#### 6. DGMS: Note on Occupational health hazard and health risk.

- a) In coal mines, there is a health hazard & risk to the mine workers mainly due to un-safe and polluted working conditions at the work place resulting into health hazards and occupational diseases.
- b) Health hazard to mine workers: The most important step has been taken by this Directorate by notifying more stringent Coal Mines Regulations (CMR), 2017 to ensure the safe working conditions at work place. In addition to this, Circulars are being issued from time to time to guide the mine management and other stake holders. The mines are inspected by the officers of this Directorate to ensure enforcement of the provisions of the Mines Act, 1952 and Regulations, Rules and orders made thereunder. A provision was made in Coal Mines Regulations, 2017 for preparation and implementation of Safety Management Plan (SMP) and its periodic review, a step ahead towards self regulation. The actions are being taken by issuing violation letters, improvement Notices and Prohibitory Orders and follow-up. The non-statutory measures like organising National Conference on Safety in mines, National Safety Awards in mining, Safety Weeks, and awareness programmes are undertaken by DGMS.
- c) Occupational health risk: The persons employed in mines are also exposed to polluted environment at workplace which adversely affect their health, such as dust, noise, vibrations resulting into occupational

diseases. The notified diseases are coal miners pneumoconiosis and noise induced hearing loss. The efforts are being taken to improve work place environment by strict enforcement of provisions of CMR, 2017. The provisions of Mines Rules, 1955 are also being enforced to identify the persons contacted by occupational diseases. All the persons employed in a mine directly or through contractor are undergoing initial and periodical medical examination even at an interval shorter than that specified in the Mines Rules, 1955. The action is being taken by issuing violation letters and discussing the matter in Bi-partite and Tri-partite forum for provision of ILO trained doctors and facilities such as audiometry, spirometry and proper analysis of chest radiographs.

- d) Fresh initiatives such as mechanization to reduce personal exposure to risks, standardization of materials & equipment including personal protective equipment (PPE) and use of latest instruments and system in environmental monitoring are also being undertaken.
- 7. M/s. Ambuja Cements Ltd (Gare Palma-IV/8): IME and PME done on regular basis and no occupational disease has been reported so far.
- 8. **Ultratech Cement:** Coal dust formation is the major health hazard and mitigation plans are in place for dust suppression by fixed sprinklers and mobile water tankers.

#### 9. TATA STEEL:

#### 1. PME (Periodical Medical Examination) -

#### Jharia Division

Year	Target	Achieved
2016	907	907
2017	777	777
2018	503	503
2019(till 31 <sup>st</sup> Aug)	470	470

#### West Bokaro Division

Year	Target	Achieved
2016	598	602
2017	530	521
2018	540	545
2019 ( Upto Aug,2019)	398	435

#### 2. First - Aid training for employees

#### Jharia Division

Year	Achieved
2016	355
2017	198
2018	303
2019(till 31 <sup>st</sup> Aug)	129

#### West Bokaro Division

Year	Achieved
2016	102
2017	114
2018	95
2019 ( Upto Aug,2019)	63

## 3. Health awareness training programmes organized and no. of employees trained –

#### Jharia Division

Year	No. of programmes organized	No. of employees trained
2016	16	457
2017	15	487
2018	16	468
2019(till 31 <sup>st</sup> Aug)	09	324

#### West Bokaro Division

Year	No. of programmes organized	No. of employees trained
2016	14	382
2017	15	419
2018	17	527
2019 ( Upto Aug,2019)	9	283

<sup>4.</sup> Notifiable diseases detected in employees during periodical medical examination from 2016 to 2019(till 31<sup>st</sup> Aug) -NIL

## Amendment proposal of Coal Mines regulation / Coal Mine Act, 1952

1. DGMS: The status of amendment of Mines Act and Coal Mines Regulations are as follows:

The Mines Act, 1952: Amalgamation of the Mines Act, 1952 under Occupational Safety, Health and Welfare (OSHW) Code is under active consideration at Ministry of Labour and Employment (MoLE), New Delhi.

The Coal Mines Regulations, 1957: The Coal Mines Regulations, 1957 has been amended and has been notified as Coal Mines Regulations, 2017, in the Gazette of India, Extraordinary, Part-II, Section 3, subsection (i), No. 954 dated 27.11.2017.

- 2. CIL:The Coal Mines Regulations have already been amended and the new Coal Mine Regulation 2017 has been notified in official gazette by Central Government on 27<sup>th</sup> November, 2017 and came into force.
- The Mines (Amendment) Bill, 2011 was introduced in the Rajya Sabha on March 23, 2011. The Bill was subsequently referred to the Standing Committee on Labour & Employment.

Gist of amendments that proposed in the said draft Bill are as under:

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

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

As per the Mines Act-1952	Proposed in the Mines (Amendment) Bill – 2011
Sec- 2(I) "owner" when used, in relation to a mine, means any person who is the immediate	2(I) "owner", when used in relation to a mine, means a person or authority having ultimate control over the affairs of the mine:
proprietor or lessee or occupier of the mine or of any part thereof and in the case of a mine the business whereof is being carried on by liquidator or receiver, such liquidator or receiver but does not include a person who merely receives a royalty rent or fine from the mine, subject to any lease grant or license for the working thereof, or is merely the owner of the soil and not interested in the minerals of the mine; but (any contractor or sub-lessee for the working of a	Provided that where the mine belongs to,—  (i) a company incorporated in India, the Managing Director thereof, and if there is no Managing Director, all the whole-time directors of the Board of Directors of the company, as the case may be, shall be the owner;  (ii) a foreign company, the Principal Officer by whatever name called, including its director and secretary, shall be the owner;
mine or any part thereof shall be subject to this Act in like manner as if he were an owner, but not so as to exempt the owner from any liability;	(iii) a firm or other association of persons, all the individual partners or members thereof, shall be the owner:
New insertion	"74A. Where any person is prosecuted, or proceeded against, for contravening any of the provisions of this Act or of any rule, or regulation, or bye-law or order made thereunder, it shall be for the person who is alleged to have failed to comply with such duty or requirement, to prove that it was not reasonably practicable, or, as the case may be, all practicable

As per the Mines Act-1952	Proposed in the Mines (Amendment) Bill – 2011
	measures, were taken, to satisfy the safety requirements, duty or other requirements, as the case may be.".
New insertion	"76A. Nothing contained in this Act shall absolve any person from his liability under this Act, if such person had or has ultimate control over the affairs of the business of the mines."
Penalties & procedures Penalties provisions under section 63,64,65,66,67,68,69, 70,72A,72B, 72C & 76	Penalties provisions under 63,64,65,66,67,68,69, 70, 72A,72B, 72C,73 & 76 have been increased  • Monetary penalties increased 100 times and maximum uptoRs 5 lacs  • Imprisonment upto 5 years in place of 2 years

- **3. SCCL:** Coal Mines Regulations 2017 already amended.
- **4. NLCIL:** The Coal Mines Regulation already amended and came to force right from 27.11.2017. The provisions of regulations are strictly implemented in NLCIL mines.
- **5. DVC:** The Coal Mines Regulations have already been amended and the new Coal Mine Regulation 2017 has been notified in official gazette by Central Government on 27<sup>th</sup> November, 2017.

\*\*\*\*

# List of the participants of the 43<sup>rd</sup> meeting of Standing Committee on Safety in Coal Mines held on 21.8.2018 in New Delhi

#### MINISTRY OF COAL

1	Hon'ble Minister for Railways, Coal, Finance & Corporate Affairs - Chairman
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Dr. Inder Jit Singh Secretary

3 Shri Suresh Kumar Additional Secretary

4. Shri R.K. Sinha Jt. Secretary

Dr. Anindya Sinha Project Adviser

6. Shri Peeyush Kumar Director (Technical)

7. Shri B. Santhosh Asst. Secretary

8. Shri A. Pandey Asst. Secretary

Shri Yogesh Asst. Secretary

Shri A.K. Mandal Under Secretary

## TRADE UNION REPRESENTATIVES

11. Dr. B.K. Rai BMS

Shri Surender Kumar Pandey
 All India Secretary, BMS

13. Shri Nathulal Pandey HMS

14. Com. C.J. Joseph AITUC

15. Shri Manas Kumar Mukherjee AICWF (CITU)

16. Dr. Vinod P. Sinha IMMA

## MINISTRY OF LABOUR & EMPLOYMENT/ DGMS

17. Shri Suresh Singh Director

Shri Venkanna Banothu
 Dy. Director Mine Sefety, DGMS

Shri Ganesh Kumar Section Officer

## **COAL INDIA LIMITED (CIL)**

Shri Anil Kumar Jha
 Chairman CIL

21. Shri N. Sridhar (IAS) CMD, SCCL

22. Shri Binay Dayal Director (T), CIL

23. Shri R.P. Srivastava Director (P & IR), CIL

24. Shri Gopal Singh CMD, CCL

25.	Shri R.R. Mishra	CMD, WCL
26.	Shri Shekhar Saran	CMD, CMPDIL
27.	Shri Ajay Kumar Singh	CMD, BCCL
28.	Shri P.K. Sinha	CMD, NCL
29.	Shri P.S. Mishra	CMD, ECL
30.	Shri A.P. Panda	D(F)/CMD(I/C), SECL
31.	Shri Jaswinder Pal Singh	Director (O), MCL
32.	Dr. Sanjay Kumar	Director (P), WCL
33.	Shri Vinay Ranjan	Director (P), ECL
34.	Shri R.S. Mahapatra	Director (P), BCCL
35.	Shri R.S. Mahapatra	Director (P), CCL
36.	Shri L.N. Mishra	Director (P), MCL
37.	Shri R.S. Jha	Director (P), SECL
38.	Shri Anil Kumar Bharali	GM (S&R), CIL
39.	Shri A.K. Singh	GM (Safety), WCL
40.	Shri Charks Juster	Chief of Personnel, NCL
41.	Shri Sunil Prasad Singh	GM(S&R), CCL
42.	Shri J.G. Singh	GM (S&R), SECL
43.	Shri S.K. Mukhopadhyay	GM (S&R), ECL
44.	Shri S. Roy Choudhury	GM (S&R), MCL
45.	Shri D.P. Nakay	GM(MP&IR), CIL
46.	Dr. Kushal Mitra	CMS, CIL
47.	Shri Sanjeev Kumar	GM (P-W/L), CIL
48.	Shri G.S. Bhati	GM (Admn.), CIL, Delhi
49.	Shri Satyajeet Ojha	Chief Manager, CIL/MOC
50.	Shri A.K. Diwakar	Sr. Manager, CIL/MOC
51.	Shri Ashish Kumar	Sr. Manager, CIL/MOC
NLO	C INDIA LIMITED (NLCIL)	
52.	Shri Rakesh Kumar	D(F)/CMD (I/C)
53.	Shri V. Krishna Rao	Dy. GM (E&M), NLCIL
54.	Shri K. Mohan Rao	ISO (Mines), NLCIL

SINGERANI COLLIERIES COMPANY LIMITED (SCCL)

55. Shri B. Bhaskara Rao

Director (T), SCCL

56. Shri N.K. Ojha

R.O., SCCL

57. Shri M. Vasanth Kumar MR

ISO, SCCL

TATA STEEL

58. Shri Sanak Ghosh

Chief (Operation)

SASAN POWER LTD

59. Shri Bhola Singh

Director

WBPDCL

60. Shri S.K. Gupta

G.M.(Mining)

NTPC

61. Shri A.K. Dash

GM (Coal Mining)

Rajasthan RajyaVidyut Utpadan Nigam Limited

62. Shri S.S. Meena

Director (Technical)

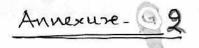
63. Shri Hem Raj

Executive Engineer (Fuel)

64. Shri Snehil Argal

Asstt. Engineer

\*\*\*\*





# Irezrata azrA' TRMTR Government of India sgff "tiqTR



YEARS OF CELEBRATING THE MAHATMA

RaWT

Ministry of Labour & Employment

Directorate General of Mines Safety

No. DGMS (Legis)/Circular

Dhanbad,

4,A/05/2019

No To,

All Owner, Agents and Managers of Mines.

Subject:- Equal employment opportunities for women in mines and exemption from the provisions of section 46 of the Mines Act, 1952 (Revised)-Reg.

Sir,

The Central government exempts the women employed in any mine aboveground including opencast workings and in any mine belowground from the provisions of Section 46 of the Mines Act, 1952 vide following Gazette notification published in the Gazette of India:

SI No.	Gazette notification	Subject	Published in Gazette of India in	Date of publication
01.	393{S.O.506(E)}	Exemption for the women employed in any mine above ground and in mine below ground from the provision 46 of the Mines Act, 1952.		29 <sup>th</sup> January, 2019

The copy of the above notification may be retrieved from egazete.nic.in website.

The Owner or mine management shall frame a standard operation procedure (SoP) for adoption and implementation during employment of women in underground mines and between 7 pm and 6 am in above ground and opencast mines, based on the Annexed guidelines.

Yours faithfully

(Utpal Saha) 2 WA

Director General of Mines Safety.

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Directorate General Of Mines Safety - Protecting Miner's Safety & Health Since 1902 Head Office Ph. No.: 0326-2221000, Fax:0326-2221027, e-mail: dg@dgms.gov.in

# Comments of DGMS on some of the issues of ILO Convention 1995 (No.176) on safety and health in Mines:

S.No.	Part/ Article of Convention 176	Contents of the article	DGMS comments
01	Part I: Definitions Article-1 (a) (iii)	Preparation, including crushing, grinding, concentration or washing of the extracted material	to units beyond the mine control area like washeries, coal handling
00			(iv) The Mines Act, 1952 is not applicable presently to certain small mines and prospecting operations under certain conditions (Section 3 of the Mines Act, 1952).
02	B. Rights and duties of workers and their representatives - Article 13 (1) (e)	To remove themselves from any location at the mine when circumstances arise which appear, with reasonable justification, to pose a serious danger to their safety or health	Knowledge profile and awareness levels of all the work persons are to be considered before considering ratification of the provision.  However, sub-ordinate legislations framed under the Mines Act, 1952 has the following provisions:
			(i) Regulation 40 (4) (b) of the Coal Mines Regulations, 2017: Every person employed in a mine shall report forthwith to an official, any situation which he believes may pose a risk to his safety or health or that of other persons, and which he may not be able to deal with himself.  It is proposed in the draft
			Metalliferous Mines Regulations, 2018.  (ii) Regulation 133 (1) of the Coal Mines Regulations, 2017 & Regulation 117 (1) of the Metalliferous Mines Regulations, 1961: If at any time it is found by a

mine or district, that by reason of any cause whatsoever, the mine or district is dangerous, he shall immediately withdraw all persons from the mine or district; and the mine or district shall be fenced off so as to prevent persons inadvertently entering therein.

Hence, it would be appropriate to wait & watch the awareness level of workmen & preparedness of all the employees across the sector before ratifying the convention.

It is not possible to ratify ILO conventions till national Laws cover all aspects of their conventions through established processes.

## Inspection of Moher & Moher Amlohri Ext. OC project of M/S Sasan Power Limited by Sub Committee of Ministry of Coal

In pursuance of Office Memorandum of Under Secretary to Govt. Of India Dated 22.11.2018, inspection of Moher & Moher Amlori Ext. OC project of M/S Sasan Power Limited was done by Sub-committee of Ministry of coal on 19.12.2008. This is in compliance with the decision taken in 43<sup>rd</sup> meeting of Standing Committee on Safety in Coal Mines.

The following committee members were present:

### Members:

Representatives of Sasan Power Limited

1. Sri U.K.Singh, DMS, Varanasi

1.Sri A.K.Singh, CEO

2. Dr. B.K.Rai., BMS

2.Sri Bhola Singh, Owner/Agent

3. Sri Nathulal Pandey, HKMF (HMS)

3. Sri M.K.Singh, Manager

4. Sri C.J.Joseph, AITUC

4.SriUmesh Mahto, Planning

5. Sri Manas Kumar Mukherjee, AICWF(CITU)

6. Sri A.K.Bharali, GM(SAFETY), CIL

### Salient Points of the project

1	Name of the mine	Moher Amlori Ext. OC project			
2	Name of the Company	Sasan Power Limited			
3	Targeted capacity of the Mine	20 Million Tonnes per year			
4	Life of the Mine	29 Years			
5	End use of Coal	Sasan Ultra Mega Power Project (3960MW)			
6	Grade of Coal	G-10 to G-12			
7	Geological Blocks &		Net Proved Reserves(MT)		
	Reserves	Coal Seams	Moher Block	Moher- Amlohri Extension Block	Total
		Turra	186.56	107.90	294.46
		Purewa Merged	130.10	150.44	280.54
	Total		316.66	258.34	575.00

8	Extractable Coal Reserves	Net Geological Reserve(MT)			575
		Mineable	470.43		
		Percentag	e of Extrac	tion (%)	81.18
		Estimated	Volume of	f Overburden	1893.73
		Average S	1 in 4.03		
9	Range of Top Overburden Cover	13 Mtrs to 287 Mtrs			
10	Thickness of Coal Seam	Name of Seam		Full Thickness(Mtrs)	
		Purewa merged		19.50 to 26.15	
		Turra		12.30 to 19.30	
11	Thickness of inter band/Parting	52 to 69 Mtrs			
12	Total Mining Lease area(for a period of 30 Years)	1586.05 Ha(Total Area of Project is 2037 Ha)			is 2037
	HEMM Details	Name of HEMM	Number of HEMM	Type of equipment	Capacity
		Rope Shovel	6	Electrical	42CuM
		Rear Dumpers	55	Diesel	240T
		Dragline	2	Electrical	62 CuM
		Drills	15	Electrical Electrical Electrical Diesel	310mm 250mm 250mm 160mm
		FEL	2	Diesel	42 CuM
		Dozer	10	Diesel	850HP 240HP 560HP
		Water Sprinkler	4	Diesel	70KL
13	Manpower	Manpower 909			

## Safety Satistics

Particulars	14-15	15-16	16-17	17-18	18- 19 (Till date)
Fatalities	2	0	1	0	2
Serious Accidents	1	0	1	0	0
Reportable	0	0	5	0	1
Fatality rate per MT	0.2128	0	0.0588	0	Ž
Fatality rate per 3lac man shift	4.8377	0	1.2871	0	
Coal production(MT)	9.400	17.02	17.00	18.003	
Man shift Work	124027.00	211707.00	233087	238028	
Avg. Man power	450	707	777	789	

### View and suggestions:

At the outset Sri Bhola Singh, Nominated owner welcomed the members of committee and presented brief description of the project. Coal from the mine is used as fuel to generate electricity at the company 3960 MW Sasan Ultra Mega Power Project, India's largest domestic coal based integrated power plant.

The committee members explained the purpose of visit of the Moher & Moher Amlorhi Ext. OC project of M/S Sasan Power Limited. The best practices adopted by the mine are to be gathered for adoption in other mines. Standards of safety in the mine in respect of implementation of Mines Act, Regulations and Permissions are to be seen by members of the committee. Welfare activities and Utilisation of machines are the other area where committee will like to see the performance of the company.

### Inspection and recommendations:

The committee observed operation of Dragline from view point and also inspected the coal faces. During the visit of Substation, the committee enquired about the Shut down procedure being followed by the mine management. Mine management explained the lock out system adopted by them making the process of taking Shut down fail safe. A mobile canteen was inspected by the committee.

The committee after inspection recommended the following;

1. Lighting was not provided in the mine and suggested implementation of DGMS circular issued on lighting.

- 2. At crossing point of light vehicle and HEMM road, signalling is required.
- 3. Guard posted at different places in mine were exposed to the risk of being hit by moving machineries. A raised platform shall be prepared for stationing of such guards.
- 4. Analysis of the accidents shall be done in order to ascertain the causes and circumstances leading to accidents.
- 5. In every dump persons shall be placed at safe distance preferably on a raised platform.
- 6. It has been observed that loading of dumpers by Shovels was going on both sides of the loading machines. The system of both sides loading of dumpers shall be re looked in light safety.
- 7. Mines plan is maintained and submitted to DMS office in soft copies which need to be relooked.
- 8. Internal safety organisation to be reorganised since it was revealed that Safety officer is reporting to the CEO and not to the Mines manager.
- 9. Policy of massive target oriented work load to each worker or group should be relooked from safety point of view.
- 10. Training centre, Time office for making attendance and medical centre were not kept in the list of places to visit during inspection.
- 11.Dust suppression system so far looked satisfactory and other organisations in coal industry may follow the system.
- 12. Though reported by the management that ample provision of drinking water have been there near to the work face but visibly no such arrangement was seen
- 13.All most all the earth moving machineries are imported and having left hand driving arrangement. But since the road operation is conventional as follows in India i.e. Right side driving on the road there remains serious safety concern.
- 14. No transparent IR mechanism observed.
- 15. Medical arrangement is not up to the mark and as reported by the management they send the patients to outside health centres if it is little bit critical.
- 16.As reported by the management they are having a miniscule arrangement for detection and treatment of occupational diseases but they are in the process of acquiring equipment as per ILO/DGMS guidelines.

## No. 55012/01/2015-CRC-II (Vol.II) 330137 Government of India Ministry of Coal

New Delhi, Dated: 17th January, 2019

Shri Sri A.K.Singh, CEO, Sasan Ultra Mega Power Project Dhirubhai Ambani Knowledge City (DAKC), I Block, 1st Floor (North Wing) khoperkhera, Navi Mumbai, Mumbai-400701

Subject: Recommendations suggested by the Sub Committee during the Inspection of Moher & Moher Amlohri Ext. OC project of M/S Sasan Power Limited on 19.12.2018.

Sir,

I am directed to refer to the inspection of the Sub Committee of Standing Committee on Safety in Coal Mines, Ministry of Coal had visited the Moher & Moher Amlohri Ext. OC project of M/S Sasan Power Limited on 19.12.2018.

During the inspection, the Committee has suggested the following recommendations for system improvement:

- 1. Lighting was not provided in the mine and suggested implementation of DGMS circular issued on lighting.
- At crossing point of light vehicle and HEMM road, signalling is required.
- 3. Guard posted at different places in mine were exposed to the risk of being hit by moving machineries. A raised platform shall be prepared for stationing of such guards.
- 4. Analysis of the accidents shall be done in order to ascertain the causes and circumstances leading to accidents.
- 5. In every dump persons shall be placed at safe distance preferably on a raised platform.
- It has been observed that loading of dumpers by Shovels was going on both sides of the loading machines. The system of both sides loading of dumpers shall be re looked in light safety.
- Mines plan is maintained and submitted to DMS office in soft copies which need to be relooked.
- Internal safety organisation to be reorganised since it was revealed that Safety officer is reporting to the CEO and not
- Policy of massive target oriented work load to each worker or group should be relooked from safety point of view.
- 10. Training centre, Time office for making attendance and medical centre were not kept in the list of places to visit
- 11. Dust suppression system so far looked satisfactory and other organisations in coal industry may follow the system. 12. Though reported by the management that ample provision of drinking water have been there near to the work face but
- 13. All most all the earth moving machineries are imported and having left hand driving arrangement. But since the road
- operation is conventional as follows in India i.e. Right side driving on the road there remains serious safety concern. 14. No transparent IR mechanism observed.
- 15. Medical arrangement is not up to the mark and as reported by the management they send the patients to outside health
- 16. As reported by the management they are having a miniscule arrangement for detection and treatment of occupational diseases but they are in the process of acquiring equipment as per ILO/DGMS guidelines.

It is requested that the above suggested recommendations may be implemented for improvement of system immediately and submit Action Taken Report to this Ministry.

Yours faithfully,

(R.C. Mathpal) Section Officer

Ph: 23382269

Post Box No.: 2,

Moher & Moher Amlohri Ext OC Project, M/s Sasan Power Limited (Coal Mines),

Post: Waidhan, Distt: Singrauli (M.P) - 486886

Ref: MMAE /SPL/DGMS/ 2018-19/Feb/06

Dated: 16th February 2019

To Ministry of Coal, Shastri Bhawan, Dr. Rajendra Prasad Road, New Delhi, India - 110001

Sub: Report on Action Taken against Recommendation Letter No. 55012/01/2015-CRC-II (Vol-II) 330137 dated 17<sup>th</sup> Jan 2019.

Sir,

Please find the detailed report on actions taken against recommendations suggested for System Improvement by the Sub-Committee during the inspection of Moher & Moher Amlohri Extension coal mine of Sasan Power Limited (SPL):

S No.	Observations	Action Taken	
1	Lighting was not provided in the mine and suggested implementation of DGMS circular issued on lighting	<ul> <li>Reg. 175 of CMR 2017 stipulates 'General lighting' of the mines and therefore DGMS has been pressing hard for 'General Lighting' of the haul roads. Accordingly, on permanent sections of haul road, 'General Lighting' has been planned and the same will be implemented on availability of permanent road access.</li> <li>Lighting is adequate at Working / Production Faces (Dragline, Shovels, FELs, and Drills), Dumping locations (Coal yards - NRP / SRP, OB Dumps), Pumping locations (Sumps / Pumps) and other equipment.</li> <li>Haul road lighting is adequate with moving Dumpers (every Dumper equipped with 4 nos. head-lights of 35 watt each) Globally haul road are lighted by Dumper head-light only. Mine has also included reflective delineators at 100m intervals on straight road section and at 50m intervals when approaching intersections which can be seen from up to 500m by dumper operators.</li> </ul>	
2	At crossing point of light vehicle and HEMM road signaling is required.	<ul> <li>All crossing points of Light Vehicles (LV) &amp; HEMM are provided with Signage board &amp; Speed breakers.</li> <li>LMV Drivers are specially trained (through Vocational Training Center) with bi-monthly refresher training for strict compliance to the mine traffic rules.</li> <li>If and when a potentially unsafe crossing is identified manual traffic controllers are used as required with additional lighting provided.</li> </ul>	
3	Guards posted at different places in mine were exposed to the risk of being hit by moving machineries. A raised platform shall be prepared for stationing of such guards.	All Guards are generally deployed in the periphery of the factor of	

Post Box No. : 2, Moher & Moher Amlohri Ext OC Project, M/s Sasan Power Limited (Coal Mines),

Post : Waidhan, Distt : Singrauli ( M.P ) – 486886

S No.	Observations	Action Taken	
4	Analysis of the accident shall be done in order to ascertain the causes and circumstances leading to accidents.	<ul> <li>Each &amp; every mine 'accident' including 'near-miss' is analyzed as per ICAM (Intensive Cause Analysis Method).</li> <li>'Root cause(s)' of the accident are identified and 'Action plan' is prepared for undertaking corrective measures (Refer Annexure for ICAM Format).</li> </ul>	
5	In every dump, persons shall be placed at safe distance preferably on a raised platform.	<ul> <li>On OB dumps, a Dozer Operator (for Dozing) and a Overman (supervisor) along with LMV are provided.</li> <li>Both are trained professionals and always work from a safe distance from HEMM.</li> </ul>	
6	It has been observed that loading of dumper by shovels was going on both sides of the loading machines. The system of both sides loading of dumpers shall be relooked in light of safety.	<ul> <li>Double Side Loading (DSL) by Shovels is a globally accepted loading practice and has been implemented on wider bench (&gt;80m) with Trail cable being laid in the median of the bench.</li> <li>Hazard identification, Risk Analysis and Mitigation plan is part of the mine Safety Management Plan and the final score is within acceptable limit.</li> <li>Operation team including Operators, Supervisors &amp; Managers is well trained for the DSL operations.</li> </ul>	
7	Mines plan is maintained and submitted to DGMS office in soft copies which need to be relooked.	<ul> <li>Till Nov'17, as required by Reg. 60 of CMR 1957, hard copies of the Mine Plan were submitted to DGMS, annually.</li> <li>In the new CMR 2017, no such plan submission is required.</li> <li>However, the Mine plans, duly signed by Surveyor &amp; Manager, are maintained in Universal Transverse Mercator (UTM) Coordinate System on monthly basis and properly maintained for internal use and records.</li> </ul>	
8	Internal safety organization to be reorganized since it was revealed that Safety officer is reporting to the CEO and not to the mine manager.	<ul> <li>Safety Officer reports to the Mine Manager only and has never reported to the CEO. There was a typo error in the presentation delivered before the sub-committee.</li> <li>The mine did employ an Expat Safety Advisor for a period of time in the past that reported to the mine Chief Project Director and was utilized for training and implementation of globally accepted safety practices across the mine.</li> </ul>	
9	Policy of massive target oriented work load to each worker or group should be relooked from safety point of view.	<ul> <li>Coal &amp; OB targets are per approved Mine Plan (by MoC) and a required for ensuring un-interrupted coal supply for Sasan 396 MW UMPP.</li> <li>Manpower is provisioned in three shifts (8 Hrs x 3) and norm rest / leave / sick, working duration and conditions are du considered.</li> </ul>	
10	Training center, Time office for making attendance and Medical center were not kept on the list of place to visit during inspection.	<ul> <li>It was an oversight due to the time constraint.</li> <li>Training center, Time office (for attendance) and Medical center are all located in one premise.</li> </ul>	
11	Dust suppression system so far looked satisfactory and other organizations in	Sasan Coal Mine would be happy to co-operate & collaborate with industry for improving the Dust suppression system.	

Post Box No. : 2,

Moher & Moher Amlohri Ext OC Project, M/s Sasan Power Limited (Coal Mines),

Post : Waidhan, Distt : Singrauli ( M.P ) – 486886

S No.	Observations	Action Taken		
15	Medical arrangement is not up to the mark and as reported by the management they send the patients to outside health centers of it is little bit critical.	<ul> <li>The coal mine &amp; plant combined together have 3 Doctors, 13 nursing / Para-medical staff, 4 bed observation facility, a Pathology lab, Audiometry / Spirometry / LFT facility etc that meets our 'day-to-day' and Initial/Periodical Medical Examination (IME/PME) requirement.</li> <li>Our critical patients are sent to NCL Nehru Hospital, NTPC Hospital &amp; Govt. Hospital. All the coal mine projects of NCL refer critical patients to Nehru hospital only.</li> <li>Our Mine was winner of the Annual Mines Safety Award for 2018 in IME/PME category in Annual Mines Safety Week organized by Directorate General of Mines Safety (DGMS), which is an evidence of our quality work.</li> </ul>		
16	As reported by the management they are having a miniscule arrangement for detection and treatment of occupational disease but they are in the process of acquiring equipment as per ILO / DGMS guidelines.	<ul> <li>Except for a 300 mah X-ray machine, all other requirements are in place. Facilities to house this x-ray machine are under construction at site medical centre and shall be completed shortly. We obtain help of outsource agency to bridge any current gaps.</li> </ul>		

#### Annexes:

- 1. ICAM Format
- 2. Photograph of 'Meals on wheels'
- 3. IR Policy
- 4. Contractor's Induction Manual

Jahr.

Chief Executive Officer Sasan Ultra Mega Power Plant

Regards

### Copy to:

- 1. Mine Owner/Agent, MMAE OCP
- 2. Mine Manager, MMAE OCP
- 3. Chief Business Officer, R-Power
- 4. Business Development Manager, R-Power

A.MERBRUS.

Post Box No. : 2, Moher & Moher Amlohri Ext OC Project, M/s Sasan Power Limited (Coal Mines), Post : Waidhan, Distt : Singrauli ( M.P ) – 486886

S No.	Observations	Action Taken		
	coal industry may follow the system.	Action taken		
12	Though reported by the management that ample provision of drinking water has been there near to the work face but visibly no such arrangement was seen.	<ul> <li>There is provision of RO water for all employees of the mine.</li> <li>Each HEMM operator / maintenance personnel in the mine are provided with 2 Lfr water in a bottle.</li> <li>Meal and breakfast are provided in a specially built movable canteen called in "Meal on wheel" which is equipped with all the basic amenities like pure water, AC cabin (Dust protection), Wash basin, good quality food etc. (Refer Annexure II for photograph of 'Meals on Wheels')</li> </ul>		
13	Almost all the earth moving machineries are imported and having left hand driving arrangement. But since the road operation is conventional as follows in India i.e. Right side driving on the road there remains serious safety concern.	Dumpers / HEMM are always Left Hand Drive (both Indian make, e.g.; BEML and International brand, e.g.; Cat, Komatsu, Belaz, etc.).     Light Vehicle operators also undergo bi-monthly refresher training for strict compliance to the mine traffic rules.		
14	No transparent IR mechanism observed.	<ul> <li>We have written IR Policy (refer Annexure III) in line with the international funding requirements of the organization and the same is audited every quarter a year by a third party.</li> <li>SPL has always implemented changes made in labor laws and passed the benefits to workmen including contractual manpower.</li> <li>Quarterly trainings of all workmen are organized and Formal induction manuals have been updated and released from time to time (refer Annexure IV).</li> <li>For the effective and transparent communication, Town hall meetings are organized almost every month, in which all senior management team interact &amp; address the employees' issues in an open way.</li> <li>We have open door policy wherein every employee is welcome to approach the management team for any grievance / concern.</li> <li>We have common canteen, common vehicle and same uniform for all the employees in the mine.</li> </ul>		

# कोल इंडिया लिमिटेड

(भारत सरकार का उपक्रम)
महारत्न सार्वजनिक क्षेत्र प्रतिष्ठान
सी आई एन:L23109WB1973GO102844
परिसर सं.-04एम.ए.आर., प्लॉट नं.-ए.एफ.-III,
एक्शन एरिया- 1A, न्यू टाउन,
राजरहाट, कोलकाता-700156
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वेबसाइट: www.coalindia.in



# **Coal India Limited**

(A Government of India Enterprise)
A Maharatna PSU
CIN: L23109WB1973GOI02844
Premises No. 04 MAR, Plot No. AF-III,
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E-mail: dt.cil@coalindia.in Website: www.coalindia.in

दिनांक: 24.01.2019

पत्र संख्या: CIU S € R | 2019 | 77

To,
The Under Secretary to Govt. of India
Ministry of Coal.

Subject: Recommendations of the Committee for Standardization for mining shoes and gumboots.

Dear Sir,

A decision was taken in the 43rd meeting of the Standard Committee on safety in Coal Mines held on 21.08.2018, under the Chairmanship of Hon'ble Minister of coal, to constitute a committee to finalize the specifications for procurement of good quality mining shoes and gumboots in coal companies.

In pursuance of this, a Committee was constituted by the Ministry of Coal vide Office Memorandum No. CCSD-51013/08/2018-CCSD dated 22.11.2018. The Committee met at the Office of The Director (Technical) on 16.01.2018 at 11.00 AM. After detailed deliberations on the future Standards of Specifications for mining shoes and gumboots, the Committee is submitting its recommendations for your kind perusal.

Yours faithfully

(Binay Dayal)

Director (Technical), CIL

Recommendations of the Meeting held on 16.01.2019 at CIL Hq., Kolkata by Committee constituted vide office memorandum no. CCSD-51013/08/2018-CCSD, Ministry of Coal, Govt. of India, dated 12.11.2018 for standardization of specification for mining shoes and gumboots as per the decision taken in the 43rd meeting of Standing Committee on Safety in Coal Mines held on 21.08.2018 under the chairmanship of Hon'ble Minister of Coal, Govt. of India.

### The Committee members are:

1. Director (Technical), CIL

2. Director (Technical), SCCL

3. Director (Technical), NLCIL

4. GM(Safety & Rescue), CIL

- Chairman

- Member

- Member

Member Secretary

The committee was constituted in compliance of direction by the Hon'ble Minister for standardization of specification for mining shoes and gumboots for finalizing the specifications for procurement of good quality mining shoes and gumboots.

The list of participants is enclosed as Annexure.

### Committee Deliberations:

## I. Prevailing Technical Specifications for mining shoes and gumboots:

Directorate General of Mines Safety, Ministry of Labour and Employment, GOI, through Approval Policy-2015 (Second Revision:5th May 2016) has put Protective Footwear of all types under the category of DGMS approval by General Order. Accordingly, the technical specification of the footwear of all types used in mines shall conform to the standards of Bureau of Indian Standards (BIS) or their revised version as stipulated by DGMS Circular (Approval) no. 13, Dhanbad dated 04-06-2016.

As per the above provisions, in CIL, SCCL and NLCIL the following BIS technical specifications and their revised versions are used for procurement of footwear:

- (a) IS 3976:2003 for Protective Rubber Canvas Boots for Miners
- (b) IS 5557: 2004 for Safety/ Protective Rubber Ankle and Knee Boots
- (c) IS 12254:1993 for safety/Protective PVC Ankle and Knee Boots

The committee noted the above technical specifications for footwear being used in CIL, NLCIL and SCCL.

### II. Recommendations:

After detailed deliberations on the above technical specifications, BIS provisions and statutory provisions laid down by Directorate General of Mines Safety in this regard, the following recommendations are proposed:

- (A) Rubber Canvas Boots:
- 1. The latest Technical specifications of Indian Standards –IS 3976 :2018 for Rubber Canvas Boots is to be adopted as this new specification is expected to enhance safety, durability and comfort level .
- 2.Uniform standard testing of the product is proposed at pre-dispatch stage as per the relevant IS guidelines by CMPDI for maintaining quality of the foot wear.
- In addition to the above, Third party testing of the boots preferably by FDDI (Footwear Design and Development Institute, GOI) or any NABL accredited laboratory is proposed.

- 4. Boot manufacturers shall upgrade their manufacturing facilities to meet the new requirements as per specification IS 3976:2018 so as to ensure continuous supplies as the future procurement shall be as per this new specification.
- 5. Further, the Manufacturer / supplier should establish the controls in process and in-house test facilities for ensuring assured Quality.
- Improved quality standards may result in durability / enhanced life and quality leading to better economic use. Assessing the periodicity of supply may be discussed with all stakeholders including trade unions, DGMS, etc.
- (B) For Gum Boots: The specifications of the following standards of Bureau of Indian Standards (BIS) or their revised version shall continue:
- (i) IS 5557: 2004 for Safety/ Protective Rubber Ankle and Knee Boots

(ii) IS 12254:1993 for safety/Protective PVC Ankle and Knee Boots

(S Chandrasekhar)

Director Tech(Opns), SCCL

Member

( Mohan Reddy)

CGM(Safety), NLCIL

Member

GM(S&R), CIL

Member Secretary

(Binay Dayal)
Director (Technical), CIL

Chairman

340182

## No. CCSD-51013/08/2018-CCSD Government of India Ministry of Coal

New Delhi, Dated: 29.4.2019

## OFFICE MEMORANDUM

Subject: Committee Report for Standardization of specification for mining Shoes and Gumboots.

The undersigned is directed to forward herewith a copy of the Committee Report for Standardization of specification for mining shoes and gumboots formed as per decision of the 43rd meeting of the Standard Committee on Safety in Coal Mines held on 21.08.2018 for compliance and necessary action. It is also requested to submit ATR on the subject matter to this Ministry.

End: As above.

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

To,

Chairman, CIL/ Dir(T), CIL
CMDs. ECL/ BCCL/ CCL/ NCL/ WCL/ SECL/ MCL/ CMPDIL/ SCCL/NLCIL.

### Copy to:

- 1. PS to Hon'ble Minister of Railways and Coal
- 2. PSO to Secretary (Coal)
- PPS to Addl. Secretary (Coal)
- 4. PS to Project Adviser
- 5. PS to Director (Technical)