

**AGENDA NOTE FOR**  
**48<sup>th</sup> MEETING OF THE STANDING COMMITTEE ON**  
**SAFETY IN COAL MINES**

**ON**

**12<sup>TH</sup> DECEMBER, 2022**

**AT**

**NEW DELHI**



सत्यमेव जयते

**GOVERNMENT OF INDIA**  
**MINISTRY OF COAL**

**48<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 47<sup>TH</sup> (13.4.2022) AND THE 48<sup>TH</sup> (12.12.2022) MEETINGS OF THE STANDING COMMITTEE ON SAFETY IN COAL MINES**

SN	Victim's Name and Designation	Accident Date	Mine & Area	Statutory Compensation (in Rs.)	Special Relief (Rs. 15 Lakhs)	Employment provided to
<b>ECL</b>						
1	Late Sadagar Bhuiya, Driller	18.09.22	Satgram Incline, Satgram Area	1421700	Paid	Wife
<b>BCCL</b>						
1	Late Gulab Chand Mahato, Pump Optr.	10.08.22	Bhowra South OC, E J Area	10,43,475/-	paid	Son
2	Late Hari Shankar Gorh, Pump Optr.	10.08.22	Bhowra South OC, E J Area	9,07,875/-	Paid	Son
<b>CCL</b>						
1	Late Mahendra Yadav, Cont. Excavator Optr	24.06.22	Selected Dhori OC, Dhori Area	1528875	Paid	NE
<b>NCL</b>						
1	Late Govind Saw, Cont. Driver	22.04.22	Dudhichua OC, Dudhichua Area	1016700	Paid	NE
<b>WCL</b>						
1	Late Chaitram, Gen. Mazdoor	13.05.22	Tawa UG, Pathakhera Area	1588425	Paid	Deceased Mother gave consent to provide employment to brother of late Chaitram. Under process.
2	Late Bhola, Cont. Worker	13.05.22	Tawa UG, Pathakhera Area	1512450	Paid	NE
<b>SECL</b>						
1	Late Smt. Ramkali, Lamp Fitter	07.05.22	Amadand UG, Bartarai Colliery, J&K Area	Under Process (legal heir dispute)	Under Process (legal heir dispute)	Under Process (legal heir dispute)

SN	Victim's Name and Designation	Accident Date	Mine & Area	Statutory Compensation (in Rs.)	Special Relief (Rs. 15 Lakhs)	Employment provided to
2	Late Radheshyam, Pump Optr.	05.07.22	Rajgamar 4&5 UG, Korba Area	1043475	Paid	Son
3	Late Ram Prakash, Dumper Optr.	30.07.22	Amadand OC, J&K Area	Under Process (legal heir dispute)	Under Process (legal heir dispute)	Under Process (legal heir dispute)
4	Late Lal Das Khare, E P Fitter	29.09.22	Dipka OC, Dipka Area	1096500	Paid	Under process
<b>2. SCCL : Employee</b>						
1	<b>Bandari Rayalingu</b> Munshi (Trammer)	08.09.2022	SRP-1, SRP	11,48,175	15,90,000	Under Process
<b>SCCL : Contractual Employee</b>						
1	Rathod Ankit Kumar Contract Workman (Supervisor)	18.06.2022	RKP OC MMR	16,38,525	NA	NA
<b>3. TSGENCO</b>						
1	Tallapally Kiran Electrical helper	21-04-2022	Tadicherla -1 Coal Block Opencast Mine	As per rules	As Per Company rules	Dependent Employment provided

## Agenda Item- I

### **Confirmation of the Minutes of the 47<sup>th</sup> Meeting of the Standing Committee on Safety in Coal Mines under the Chairmanship of Hon'ble Minister of Coal held on 13<sup>th</sup> April, 2022**

The 47<sup>th</sup> meeting of the Standing Committee on Safety in Coal Mines was held on 13<sup>th</sup> April, 2022 at New Delhi under the Chairmanship of the Hon'ble Minister of Coal, Mines & Parliamentary Affairs Shri Pralhad Joshi.

1. After National Anthem by all participants, Hon'ble Minister, Secretary (Coal) and all members have paid homage with floral petal to those who laid down their lives for the cause of Coal Industry since the last meeting (46<sup>th</sup>) of the Standing Committee on safety in coal mines and after that ceremonial light was fired.
2. Thereafter, one-minute silence was observed in memory of all departed souls.
3. Hon'ble Minister of Coal, Mines & Parliamentary Affairs Shri Pralhad Joshi launched a web portal to facilitate safety monitoring in coal mines. This portal will help ensure real time reporting of accidents and root-cause analysis of safety incidents, which shall help in reducing accidents.
4. Hon'ble Minister of Coal, Mines & Parliamentary Affairs Shri Pralhad Joshi in his opening speech welcomed all members and other participants to the 47<sup>th</sup> meeting of Standing committee on safety in coal mines and mentioned that during the financial year 2021-22, India's coal sector had achieved a record production of 777.23 Million Ton (MT) compared to 716 MT in 2020-21 with 8.55 per cent growth. At the same time, coal despatch has increased by 18.43 per cent to 818.04 MT during the fiscal 2021-22 against 690.71 MT in 2020-21. Further, he highlighted the followings:-
  - Emphasized on adopting the Best Practices and State-of-Art Technology across all coal mines for building a "Zero Accident" mining regime.
  - Strengthening of Occupational Health Services Infrastructure and Monitoring mechanism to keep our employees safe and healthy.
  - Capacity Building for imparting Training and Skill development amongst employees.
  - Improvement in Safety, Health and Basic Facilities of Contractor Workers deployed in PSU mines, Pvt Coal Mines as well as Hiring of Equipment (HOE) patches & Mine Developer & Operator (MDO) patches.
  - Enhance awareness and sensitivity amongst all stakeholders of mine safety.
5. **Confirmation of the minutes of 46<sup>th</sup> Meeting: The minutes of the 46<sup>th</sup> meeting** of the Standing Committee on Safety in Coal Mines held on 06.07.2021 at New Delhi was confirmed unanimously by members. In this context, Shri Anandji Prasad, Advisor (Projects), MOC informed that additional points as received from different Members has also circulated as "Addendum" to original minutes.

6. Then, Shri A Prasad has highlighted the salient points of 46<sup>th</sup> meeting and made a brief power point presentation (PPT) highlighting the performance on Mine Safety by various coal companies since last meeting, action taken against suggestions & recommendations of the 46<sup>th</sup> Standing Committee meeting.
7. Shri K Lakshma Reddy, Shri Nathulal Pandey, Shri C J Joseph, Shri M Mukherjee, Shri S. Singh and other members of Standing Committee appreciated the decision of Chairman, CIL for donating Rs 16 Crore to save the precious life of an ailing child of an ordinary family and also reopening of NEC mines for production. They also praised MOC for timely organizing meeting of Standing Committee on safety in coal mines.
8. Thereafter, followings points were highlighted by Hon'ble members of the Standing Committee on safety in coal mines during deliberation:

**9. Wage Revision of coal employees:**

- Shri K Lakshma Reddy, Hon'ble Member, Rep. BMS desired that wage revision should be done without further delay. In view escalation of the cost of production, he requested MOC to allow to increase the price of coal so that wage revision could be done smoothly.
- Shri Nathulal Pandey, Hon'ble Member, Rep. HMS desired that the minimum guaranteed benefits for next wage revision should be decided before July, 2022 as a morale boosting gesture to workers.

**10. Revival of UG mines:**

- Shri K Lakshma Reddy said that Coal would remain in use for another 50 years. Keeping in view of recent commitment of Govt. of India in phasing down the use of coal by 2070, he desired that more emphasize should be given to revival of UG mines by using latest advanced mining technology as OC mines shall soon be depleted.

**11. Issues related CMPF:**

- Shri K Lakshma Reddy highlighted blunders in investment made by CMPF Authorities and alleged corruption took place in investment processes. He desired that matter should be probed either by CBI or SIT to unearth truth.
- Shri Nathulal Pandey desired that proper enquiry should be conducted pertaining issues of alleged corruption in CMPF.

**12. Zero Accident in mines:**

- Shri K Lakshma Reddy desired that all coal companies should take appropriate steps to achieve zero accident mines similar to aviation industry.
- Shri Nathulal Pandey said that there were more accidents at OC and surface of mines than UG mines primarily due to human errors. He desired that details discussion should be made on how to achieve zero accident potential in all mines and preventive measures should be taken thereby. He desired that a suitable slogan

on “ZERO ACCIDENT” should be propagated vigorously. He emphasized on imparting quality training and retraining to workers.

- Shri Sanjay Singh desired that function of mine level safety committee should be strengthened for achieving zero accident in mines and such meetings should occasionally attend by officials of DGMS and MOC.

### **13. Safety issues in SCCL:**

- Shri K Lakshma Reddy said that more accidents took place in mines of SCCL. He desired adequate steps should be taken by SCCL.

### **14. Wage of Contractual workers and other issues related to SCCL:**

- Shri Manas Mukherjee desired that all contractual workers should be given wages as per recommendation of HPC for fixation of wages to contractual employees.
- He said that SCCL is not paying compensation for covid-19 death as well as to accidental death of any contractual employee. He desired that SCCL should pay compensation in time.

### **15. Land acquisition for OC mine:**

- Shri Nathulal Pandey desired that land acquisition and rehabilitation policy should be simplified for easing present complicated process.
- Shri Sanjay Singh desired that adequate lands should be acquired for maintaining proper benching as well as OB dump geometry.
- Shri R K Sharma desired that proper steps should be taken for acquisition of lands.

### **16. Contractor Worker Safety:**

- Shri Nathulal Pandey desired that wages of all contractual workers should be as per HPC recommendation only. He further desired that gratuity as per the relevant act should be provided to the next of kin of deceased contractual employee who died in mine accident.
- Shri R K Sharma desired that NIT for HOE patch should incorporate higher capacity of HEMM to reduce the traffic density inside OC mines.

### **17. Compliance of recommendations of Rajmahal Court of Inquiry (COI):**

- Shri Nathulal Pandey and Shri R K Sharma desired that recommendations of Rajamahal Court of Inquiry should be complied.

### **18. Fly ash dumping in OC mine:**

- Shri C J Joseph, Hon'ble Member, Rep. AITUC raised the issue of fly ash dumping in running OC mines as per MOEF&CC Notification dated 31.12.2021. He said that as per the report of scientific study done by IIT-BHU in 6 OC mines of NCL, factor of safety of OB dumps would be reduced to 0.5-0.70 from existing 1.7-1.8 due to filling of fly ash and can lead to dump failures. He further pointed out huge financial implications to the mine owner due to non-implementation of provisions of latest fly ash dumping in running mines as per the notification. He said that fine would be more

than Rs 29,000 Crore for NCL, where stripping ratio is very high and will make NCL financially unviable. He requested Ministry of Coal to take up the issue with MoEF&CC for safety as well as financial liability.

- Shri R K Sharma desired that fly ash dumping in running OC mines should be stopped for sake of stability of OB dump.
19. **Amendment of Mine Vocational Training Rules (MVTR)- 1966:** Shri C J Joseph said that MVTR-1966 had been framed long back when mining conditions of the country was totally different and MVTR is not cater the need of today's working conditions of mine. He desired that DGMS / Ministry of Labour & Employment should take steps to amend MVTR. He further desired that coal companies should frame its own rule for training and get it approved from DGMS.
  20. **Amendment of Mine Rescue Rules-1985 (MRR-1985):** Shri C J Joseph said that Mine Rescue Rule-1985 had no provisions for rescue and recovery operation in OC mines. At present, 90% of India's coal production are from OC mines. He desired that MRR-1985 should be amended to accommodate rescue operations at OC mine also.
  21. **Blast Free coal mining:** Shri C J Joseph desired that all coal companies should promote blast free coal mining for sake of safety and environment.
  22. **Formulation of Occupational Health & Safety Policy:** Shri C J Joseph desired that all coal companies should frame appropriate Policy for Occupational Health and Safety as per requirement of CMR-2017 and implement the same in mines.
  23. **R&D in coal mine:** Shri C J Joseph desired that all coal companies should spend more on R&D. He also desired more inputs for safety today so that result would be visible in coming years.
  24. **Illegal coal mining issues:**
    - Shri Manas Mukherjee expressed his serious concerned on problem of illegal mining particularly in ECL and BCCL command areas. He requested that restoration and reclamation as per Mine Closure Plan should be properly done to control such illegal activities.
    - Shri R K Sharma desired that Local Police should not frame case against mine manager for illegal mining activities as it is a Law & Order and Security issue. He also desired that illegal mining activities should be stopped as it endangers safety of the mine. He said proper fencing should be provided at small OC mines too.
  25. **Dust suppression in mines:**
    - Shri Manas Mukherjee desired dust problem particularly at Gevra & Dipka Project of SECL and Jharia Coalfield should be mitigated.
    - Shri Udayendu Das desired that water harvesting in rainy season should be done to supply water for spraying particularly in summer months.



**26. Land acquisition Problem:**

- Shri Manas Mukherjee said that due to land acquisition problem, proper benching at OC mines is not being done and it endangers safety.
- Shri R K Sharma desired that proper steps should be taken for solving of land acquisition related problem.

**27. Subsidiary and Area Level Bi-partite & Tripartite meeting:** Shri Manas Mukherjee desired that Subsidiary and Area Level Bi-partite & Tripartite meeting should be held timely.

**28. Slope Monitoring Devices:**

- Shri Sanjay Singh desired that the relaxation of existing conditions for GTE should be sought from the concerned Ministry for easing the procurement process for slope stability radar from the reputed OEMs. He requested Ministry of Coal to take up the matter with the concerned ministry of Government of India.
- Shri Udayendu Das desired that proper devices should be provided for monitoring of OB dump and OB bench. He said that if present S&T project for developing indigenous Slope Stability Radar by SAMEER and CMPDI at Dudhichua OCP of NCL is successful, it would solve problem of the procurement of foreign manufactured Slope Stability Radar in Indian coal mines.

**29. Shortage of statutory manpower:**

- Shri Sanjay Singh desired that shortages of statutory manpower should be filled up.
- Shri Udayendu Das desired that shortage of electrical supervisors could be filled up by providing incentive to those who submit electrical supervisor certificate.

**30. Other issues**

- **Restoration of Coalfield Allowance:** Shri Udayendu Das desired that coalfield allowance should be restored as per recommendation of Pay & Perk Committee headed by the then CMD, SECL.
- **Maintenance Audit:** Shri Sanjay Singh desired that special audit should be done on system of machine maintenance.
- **Shortage of explosive:** Shri Sanjay Singh requested that an explosive manufacturing plant should be established to produce explosives and to avert shortages of explosives at mines for sake of continuity in production.
- **Shortage of stowing materials:** Shri Sanjay Singh desired that adequate stowing materials (sand) should be provided, particularly in WCL.
- **Haul Road Management:** Shri Sanjay Singh desired that all haul roads should be properly maintained.
- **Man Riding System:** Shri Manas Mukherjee desired that man riding system should be provided in more nos. of UG mines.
- **Training of workers:** Shri Manas Mukherjee desired that contractor workers should be properly trained before deployment in UG mines.

- **Top soil preservation:** Shri Manas Mukherjee desired that top soil of OC mines should be properly preserved.
- **Stone dusting in mines:** Shri Manas Mukherjee desired that stone dust should be provided in underground mines as per approved specification.
- **Issues related to NLC:** Shri Manas Mukherjee highlighted shortage of ALS ambulance and mobile toilet in working faces of NLC. He desired that HPC wages should be paid to all contractor workers of NLC.

31. Shri Pramod Agrawal, Chairman, CIL on his reply highlighted the followings:-

- **Land acquisition Problem:** He agreed with land acquisition problem in CIL and said that production and safety are affected due to this. He highlighted that the non-availability of proper land records and unrealistic demands for employment have made land acquisition processes for mining complicated particularly in the state of Jharkhand and West Bengal.
- **Blast free coal mining:** He informed that almost 50-60% of coal production from OC mines are being done by using surface miners, Continuous miners are used in some UG mines and recently 4 nos. of Vibratory Rippers were deployed in OC mines of MCL for OB removal. Depending upon the performance, more such Vibratory Rippers would be deployed in other OC mines of CIL for OB removal in future.
- **R&D in coal mining:** CIL has initiated several R&D projects and progress of R&Ds are being also monitored by DPE.
- **Fly ash dumping OC mine:** CIL has already made a representation on problem arising out of fly ash dumping in OC mines. He said it is an important issue to be looked into for safety as well as financial viability on account of fines for non-implementation of provisions of MoEF&CC notification.
- **Man Riding System, Highwall mining and Continuous Miner:** CIL is working on these and more such system would be adopted in future at CIL's mine.
- **Production of sand:** He informed that CIL is preparing a document for making sand from sandstone materials of OB dump and selling sand to market.
- **Explosive Problem:** He informed that CIL is contemplating to construct an explosive factory / plant in joint venture with IOCL for mines of NCL & WCL

32. Shri Rakesh Kumar, CMD, NLC on his reply highlighted the followings:

- **Wage of contractual employees:** He informed that wages of those contractual workers, who are engaged in planting trees, are based on minimum wages for agriculture labour.
- **Mobile toilet facilities:** He informed that adequate mobile toilets are provided at coal stock yard.
- **Rescue Team and ambulance:** He informed that adequate numbers of ambulance are available to cater need of emergency in NLC. One 350 bed hospital is located nearby also cater the need in case emergency.

33. **Shri N Balram, DT, SCCL** in his reply highlighted the followings:

- Bi-partite & Tripartite meeting to discuss safety issues are held regularly in SCCL.
- Increase in fatal accidents in SCCL are due to two major fatal accident one occurred in OC mine and other at PSLW UG mine:
- Compensation for COVID-19 death: He informed that SCCL Board has approved compensation for covid-19 death and would be paid shortly.
- HPC wage to Contractual employees: As cost of production of SCCL mines are comparatively high in comparison other coal companies, wages of contractual workers are less than HPC recommended wage.

34. **Shri C K Mondal, DT (commercial), NTPC** said the followings-

- Standard Operating Procedures (SOPs) for all mining operation have been prepared and being followed.
- HPC wages for contractual workers have been implemented in NTPC.

35. **Shri Prabhat Kumar, DG, DGMS** pointed out the following in his speech:-

- **Stagnating rate of mine accident:** DG, DGMS said that for last 4 years average mine accident rate is stagnant.
- **Implementation of control measures of Safety Management Plan (SMP):** He desired that the control measures as suggested in Safety Management Plan (SMP) of each mine should be implemented.
- **Zero Accident in mines:** He desired that root causes of all mine accidents should be seriously analysed and brainstorming sessions may be organized at different levels to reduce trend of mine accident and achieve ultimate vision.
- **Amendment of MVTR-1966:** He informed that amendment of MVTR-1966 has already done and it would be notified shortly.
- **Amendment of MRR-1985:** He informed that no provisions are made for rescue and recovery operation in OC mine. He said that assistance of NDRF/SDRF should be sought and requested coal companies to coordinate with NDRF / SDRF in case emergency at OC mines.
- **Safety devices for HEMM:** He informed that DGMS is discussing with OEM of HEMM for incorporating all safety features as per DGMS technical circular. DGMS would issue technical circular to incorporate all safety features mandatory for new HEMM.
- **Fly ash dumping in OC mines:** He said that factor of safety in OB dump would be reduced and safety may be compromised.
- **Safety Audit in mines:** DG, DGMS clarified that safety audit is not mandatory as per provisions of CMR-2017 but provision of safety audit would be incorporated in up-coming regulation.

**36. Shri Anil Kumar Jain, Secretary (Coal) summarized the following:-**

- **Wage Revision and HPC wage of contractor workers:** He desired that any discrepancy in wages of contractor's employees should be removed.
- **Zero Accident in mines:** Necessary steps should be taken to achieve the same.
- **Production from HOE & MDO patches:** Safety should be ensured.
- **Compensation payment in SCCL:** All Compensations should be paid in time.
- **Best Safety features in HEMM:** All advanced safety features of HEMM should be incorporated as per BIS specifications.
- **Safety meeting:** Safety meeting at various level of coal companies should be organized in time.

**37. Meeting ends with vote of thanks by Shri A Pandey, Director (Tech), MOC, GOI.**

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## Agenda Item- II

### Action Taken Report (ATR) on Recommendations of the 47<sup>th</sup> meeting of the Standing Committee on Safety in coal mines held on 13.4.2022

PN	Recommendations	Action taken
5	<p><b>Suggestion of Hon'ble Minister of Coal, Mines &amp; Parliamentary Affairs</b></p>	
	<p>i) Emphasized on adopting the Best Practices and State-of-Art Technology across all coal mines for building a “Zero Accident” mining regime</p>	<p><b>1. Coal India Ltd. (CIL) :</b> Adopted Risk Assessment based Safety Management Plan, Job Safety Analysis based Standard Operating Procedures, Tool Box Safety Talk. CIL is emphasizing of introducing following State-of-Art Technology:</p> <p><b>Modern Technology for mining for enhancing safety of operation.</b></p> <ul style="list-style-type: none"> <li>● Surface Miner for blasting free coal extraction in OC mines.</li> <li>● Introducing Vertical Ripper for extraction of OB from OC mines.</li> <li>● Continuous Miner for blast free UG mines.</li> <li>● PSLW</li> <li>● High-wall</li> <li>● Mechanized Roof Bolting with Resin capsule</li> <li>● High Capacity HEMM.</li> <li>● Vehicle Steered Hydraulic Ladder for Working at Heights(Electric Pole/High Structure)</li> <li>● Training Simulators.</li> </ul> <p><b>Mine Survey and Surveillance:</b></p> <ul style="list-style-type: none"> <li>● Electronic Total Station (ETS)</li> <li>● 3D terrestrial laser scanning (TLS).</li> <li>● SURPAC software.</li> <li>● OITDS (Operator Independent Truck Dispatch System)</li> <li>● GPS based vehicle tracking system for coal transportation along with RFID system,</li> <li>● Boom barrier,</li> <li>● CCTV camera for snapshot and integration.</li> <li>● MSSR (Mine Slope Stability Radar)</li> </ul> <p><b>HEMM Safety</b></p> <ul style="list-style-type: none"> <li>● Proximity warning device.</li> <li>● Auto dipping sensor.</li> </ul>

PN	Recommendations	Action taken
		<ul style="list-style-type: none"> <li>● Audio-Visual Alarm</li> <li>● Rear View Camera</li> </ul> <p>Details are given in <b>Annexure Table- 1 (Page-58)</b></p> <p><b>2. SCCL:</b></p> <p>SCCL keeps safety of its employees as a top priority. Nothing is more important to SCCL than ensuring that its employees return home safely at the end of the working day.</p> <ol style="list-style-type: none"> <li>I. SCCL is taking several measures to improve safety culture in the mines and allied activities of the organization. Such as –</li> <li>II. Safety pledge and Safe operating procedures (SOPs) reading at the shift beginning to all the employees, designation wise &amp; in rotation. About 1000 SOPs are read by employees every day in three shifts.</li> <li>ii. Safety suggestion box / Web application is provided at the mine and also one online application is developed in the SCCL Web application to enable the employees to upload any unsafe conditions for taking necessary corrective measures.</li> <li>iii. Annual Safety Fortnight is observed every year.</li> <li>iv. Safety audits on various activities are being conducted by constituting multi disciplinary committee with senior officers.</li> <li>v. Interaction with the workmen by safety officer and other mine/area officers.</li> <li>vi. Display of safety slogans and display of pictures showing dos and don'ts of an activity.</li> <li>vii. Enforcing use of Personal Protective Equipment</li> <li>viii. Training programmes at Mines Vocational Training Centres</li> <li>ix. Honoring longest accident free workmen during the Annual Safety Fortnight</li> <li>x. Discussions on safe working principles in pit safety committee meetings at the mine level.</li> <li>xi. Workmens Inspectors ensure safety as per the Mines Rules, 1955.</li> <li>xii. Tripartite Safety Review meetings are held at Area (Group of mines) and Company level to discuss safety issues and DGMS officials, union</li> </ol>

PN	Recommendations	Action taken
		<p>representatives and senior executives of the organization participate in the meetings.</p> <p>iii. Unions are invited to participate in all safety related meetings at Company level and Area Level including at mine/ department level.</p> <p>iv. Safety suggestion meetings were conducted on 29.11.2021 and 30.08.2022 with the representatives of recognized union and Central Trade Unions for inviting suggestions to improve safety standards in SCCL.</p> <p>xv. One Day Workshop on HEMM Operational Safety was organized on 10.05.2022 for Kothagudem Region (Kothagudem Area, Manuguru Area and Yellandu Area Mines) at Yellandu club, Kothagudem.</p> <p>xvi. SCCL is pioneer in adopting new Technologies.</p> <p>xvii. A second Surface miner was introduced in PK OC, MNG Area in addition to KOC 2 YLD Area and Continuous Miner Technology has been introduced in six underground mines viz. Shanthikhani, GDK 11, Vakilapalli UG, PVK 5 Incline and Kondapuram mines.</p> <p>xvii.i LW in ALP mine and Bolter miner in ALP and Shanthi Khani mines are in operation.</p> <p>xix. Procurement of Radar in under process for monitoring of Dump /High wall stability.</p> <p>xx. Below ground communication and tracking system with Wi-fi is in process in 10 UG mines for location of trapped miners.</p> <p><b>3. NLCIL:</b> Best Practices and State-of-Art Technology by adopting Specialized Mining Equipment for ensuring “Zero Accident” mining regime is being followed in NLCIL Mines</p> <p><b>4. NTPC :</b> At NTPC, Safety has been considered as a part of our Core Values and we recognize that all accidents are preventable. The Organizational goal is to strive for achieving “Zero Incidents” at our coal mines.</p> <p>We have adopted some of the best practices in mining industry across our mining projects which include:</p> <ul style="list-style-type: none"> <li>- Deployment of surface miners for blast free technology in coal production.</li> <li>- Use of terrestrial laser scanners for accurate and</li> </ul>

PN	Recommendations	Action taken
		<p>more reliable surveys.</p> <ul style="list-style-type: none"> <li>- Use of drones for surveying</li> <li>- Use of conveyors in coal transportation and loading onto wagons through Silo (Rapid Loading system).</li> <li>- Use of PTZ cameras for remote supervision.</li> <li>- Harnessing of IT initiatives in mining operations.</li> </ul> <p><b>5. Sasan Power td.:</b></p> <ul style="list-style-type: none"> <li>• Implementation of SMP/SOP/COP and provision of mock rehearsals</li> <li>• OB Dump monitoring (detailed in annexure - VIII)</li> <li>• Topsoil preserved separately.</li> <li>• All dumpers cabin is AC fitted.</li> <li>• Mine boundary is clearly demarcated and secured to restrict any unauthorized entry.</li> <li>• Rear dumpers are fitted with rear view camera to facilitate proper rear view to operator.</li> <li>• Proximity warning device and fatigue alarm has been fitted in rear dumpers.</li> <li>• As per recommendation of National Safety Conference recommendations Digitization of Form A and D has been done</li> <li>• Cadre based training imparted to all employees. SOP's and COP's are properly explained to all the employees.</li> </ul> <p><b>6. WBPDCCL:</b> Emphasize is given on adopting best practices and State of Art Technology in all mining activities to achieve Zero Harm.</p>
	<p>ii) Strengthening of Occupational Health Services Infrastructure and Monitoring mechanism to keep our employees safe and healthy</p>	<p><b>1. CIL:</b> Medical infrastructure of all subsidiaries are strengthened and modern diagnosis facilities along with required medical personnel are provided.</p> <p>Details of medical infrastructure are given in <b>Annexure Table- 2 (Page-59-60).</b></p> <p><b>2. SCCL:</b> Occupational Health services in SCCL:</p> <p>i. 12 Occupational Health Service Centres (PME Centres) have been established covering all the mining areas of SCCL with 25 Sr. Medical Officers trained in Associate Fellow of Industrial</p>



PN	Recommendations	Action taken
		<p>Health (AFIH) at Central Labour Institute (CLI), Mumbai.</p> <p>ii. For the compliance of the statute, IME is being done to all departmental and contract workmen before deploying them for duty. PME is being done once in every five years for the employees below 45 years of age and once in two and half years to all those employees above 45 years of age and also within one year before the attaining the superannuation.</p> <p><b>3. NLCIL:</b> There is a well-established Industrial Medical Centre functioning effectively with highly qualified and experienced medical professionals in Occupational Health Services.</p> <p>Initial / Periodical Medical Examination and Special Test of Employees / Contract Workmen are conducted at the Industrial Medical Centre of NLCI Hospital for monitoring their health.</p> <p><b>4. NTPS:</b> It is to mention that two of our coal mines (Pakri Barwadih and Talaipalli) are certified under ISO 45001 standards which is for Occupational Health and Safety. Remaining mines are under the process of attaining this certification. Further, our MDO for Pakri Barwadih and for Dulanga Coal Mining Projects are also ISO 45001 certified.</p> <p>Further, in order to strengthen the occupational health infrastructure, the following initiatives have been taken at NTPC:</p> <ul style="list-style-type: none"> <li>- Deployment of ALS (Advanced Life Support) and Basic Life Support (BLS) ambulances at all our coal mining projects and its availability along with team of trained medical / paramedical staffs.</li> <li>- Full-fledged Mine end dispensary which is well equipped with facilities like ECG, Spirometry, Audiometry, Pathological tests, defibrillator, eye testing etc for occupational health checks.</li> <li>- Availability of fully equipped first aid centres and trained first aiders at all our coal mining projects.</li> <li>- Stabilization Centre at mine premises.</li> <li>- Availability of doctors trained and certified in occupational health.</li> <li>- Tie-up with nearby hospitals for referral cases.</li> </ul>

PN	Recommendations	Action taken																																								
		<p><b>5. WBPDCCL:</b> It is being done by outsourced agencies through super specialty hospitals and being follow up regularly.</p>																																								
	<p>iii) Capacity Building for imparting Training and Skill development amongst employees</p>	<p><b>1. CIL:</b> For imparting training and skill development, processes for up gradation and modernization of Vocational Training Centres are continuing. Each subsidiary has identified two VTCs for up gradation and modernization. All modern gadgets of training like simulators, e-learning, skill assessment, Smart Board, Virtual Reality are proposed in the training center. RFP will be floated shortly. Details are given in <b>Annexure Table- 3 (Page-61)</b></p> <p><b>2. SCCL:</b></p> <p>i)</p> <table border="1" data-bbox="767 902 1460 2033"> <thead> <tr> <th data-bbox="767 902 839 1095">Sl. No</th> <th data-bbox="839 902 1082 1095">Description</th> <th data-bbox="1082 902 1201 1095">2020-21</th> <th data-bbox="1201 902 1321 1095">2021-22</th> <th data-bbox="1321 902 1460 1095">2022-23 (up to Sept., 2022)</th> </tr> </thead> <tbody> <tr> <td data-bbox="767 1095 839 1686">i.</td> <td data-bbox="839 1095 1082 1686">Ten Mines Vocational Training Centers (MVTTC) are working for training of the employees. The details of training provided are as under:</td> <td data-bbox="1082 1095 1201 1686"></td> <td data-bbox="1201 1095 1321 1686"></td> <td data-bbox="1321 1095 1460 1686"></td> </tr> <tr> <td data-bbox="767 1267 839 1323"></td> <td data-bbox="839 1267 1082 1323">Basic Training</td> <td data-bbox="1082 1267 1201 1323">8200</td> <td data-bbox="1201 1267 1321 1323">12373</td> <td data-bbox="1321 1267 1460 1323">7308</td> </tr> <tr> <td data-bbox="767 1323 839 1420"></td> <td data-bbox="839 1323 1082 1420">Refresher Training</td> <td data-bbox="1082 1323 1201 1420">6390</td> <td data-bbox="1201 1323 1321 1420">5995</td> <td data-bbox="1321 1323 1460 1420">2874</td> </tr> <tr> <td data-bbox="767 1420 839 1516"></td> <td data-bbox="839 1420 1082 1516">Change of job Training</td> <td data-bbox="1082 1420 1201 1516">8193</td> <td data-bbox="1201 1420 1321 1516">6596</td> <td data-bbox="1321 1420 1460 1516">3477</td> </tr> <tr> <td data-bbox="767 1516 839 1686"></td> <td data-bbox="839 1516 1082 1686">Gas Testing Training for attending exams</td> <td data-bbox="1082 1516 1201 1686">200</td> <td data-bbox="1201 1516 1321 1686">220</td> <td data-bbox="1321 1516 1460 1686">120</td> </tr> <tr> <td data-bbox="767 1686 839 1854">ii.</td> <td data-bbox="839 1686 1082 1854">Nargundkar Institute of Management (NIM-State of the art training centre) has been established for skill up-gradation of executives.</td> <td data-bbox="1082 1686 1201 1854"></td> <td data-bbox="1201 1686 1321 1854"></td> <td data-bbox="1321 1686 1460 1854"></td> </tr> <tr> <td data-bbox="767 1854 839 2033"></td> <td data-bbox="839 1854 1082 2033">In-house/Induction Training imparted</td> <td data-bbox="1082 1854 1201 2033">109</td> <td data-bbox="1201 1854 1321 2033">75</td> <td data-bbox="1321 1854 1460 2033">81</td> </tr> </tbody> </table>	Sl. No	Description	2020-21	2021-22	2022-23 (up to Sept., 2022)	i.	Ten Mines Vocational Training Centers (MVTTC) are working for training of the employees. The details of training provided are as under:					Basic Training	8200	12373	7308		Refresher Training	6390	5995	2874		Change of job Training	8193	6596	3477		Gas Testing Training for attending exams	200	220	120	ii.	Nargundkar Institute of Management (NIM-State of the art training centre) has been established for skill up-gradation of executives.					In-house/Induction Training imparted	109	75	81
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PN	Recommendations	Action taken				
		iii.	First Aid Training Centre was started in Sept, 2021	-	367	244
		iv.	Underground Mines Mechanization Training Institute (UMTI)	1332	1493	1120
		v.	Training on Simulators to EP Operators (From the date of commissioning of Simulators i.e. 1 <sup>st</sup> Feb., 2021).	1344		
		vi.	A Technical Training Center (TTC) at Ramagundam Area -1 has been established for imparting training with the help of Original Equipment Manufacturers (OEM) to technical personnel in OCP mines.			
			a) Initial basic training, Refresher training, Orientation training and Change of equipment training	1229	1107	849
			b) Class room training classes conducted on fire extinguishers and fire suppression systems for the trainees	778	934	609

PN	Recommendations	Action taken			
		c) Online training for EP Mechanics and EP Electricians by M/s L&T on Komatsu make Dumper, Dozer & Motor Grader	122	59	237
		<p>vii. SCCL established "Safety Management Training Centres" at Ramagundam and Mandamarri areas for imparting training to the Safety Management Teams of all operating mines by <b>SIMTARS Accredited Trainers (SATs)</b>.</p> <p><b>Status of training at SMTCs:</b></p> <p>a) Training on Development and implementation of Safety Management Plan for Safety Management teams in all operating mines @ 25 persons/mine. Total no of persons trained so far : 1019.</p> <p>b) Training on Development and implementation of Safety Management Plan for Workshops, Stores &amp; CHPs: 161 persons trained.</p> <p>c) Root cause analysis (RCA) Training to the Officers: 45.</p> <p><b>3. NLCIL:</b> NLCIL is having a well-developed infrastructure for Training &amp; Skill Development of Employees and Contract Workmen.</p> <p>Statutory Training as per MVTR 1966 is conducted at GVTC common for all Mines. Specific Job Training is being conducted in Unit Training Centre of respective Mines.</p> <p>Apart from the above, additional Training for Skill Development of Employees and their families is conducted at Learning &amp; Development Centre.</p>			

PN	Recommendations	Action taken
		<p><b>4. NTPC:</b> Training and upliftment of workforce has been one of the focus areas across coal mining projects of NTPC and it is monitored at the highest level.</p> <p>The following interventions are available for training and capacity building:</p> <ul style="list-style-type: none"> <li>• Mandatory seven days of training is included as a part of appraisal for employees.</li> <li>• Fully equipped VTC along with modern learning aids are available at coal mining projects for training of new joiners. Simulator training facilities are available.</li> <li>• Specialized trainings are arranged through OEMs and other specialized training agencies for better acquaintance with the machineries.</li> <li>• Training calendar is formulated on monthly basis.</li> <li>• A learning and training centre “CONFLUENCE” has been set up at Headquarter level for capacity building and competency building of employees.</li> <li>• As a part of Azadi ka Amrit Mahautsav (AKAM), we have organized 75 trainings between Sept 2021 to Aug 2022 on different topics for capacity building and knowledge enhancements of employees.</li> <li>• Knowledge sharing sessions are also organized on weekly basis.</li> <li>• Apart from this, we have also done the following at Company level: <ul style="list-style-type: none"> <li>○ Set up of an ITI institute under CSR initiatives at our Pakri Barwadih Coal Mining Project for capacity building of local youths.</li> <li>○ MoU with Central Institute of Plastic Technology (CIPET) for training and capacity building of village youths along with placement assistance.</li> </ul> </li> </ul> <p><b>5. WBPDC:</b> State of Excellent GVTC is under establishment with Smart Class Room, Appointment of fresh VT Manager, Instructors etc . It will be fully residential training centre.</p>
	iv) Improvement in Safety, Health and Basic Facilities of	<b>1. CIL:</b> Following steps are taken for improvement in Safety, Health and Basic Facilities of Contractor

PN	Recommendations	Action taken
	Contractor Workers deployed in PSU mines, Pvt Coal Mines as well as Hiring of Equipment (HOE) patches & Mine Developer & Operator (MDO) patches.	<p>Workers:</p> <ol style="list-style-type: none"> <li>1. Distribution of SOP to the concerned HOE Operators &amp; 'Training – retraining' of Equipment Operators on applicable SOPs</li> <li>2. Monitoring of the enforcement of Safety Rules &amp; Traffic rules applicable for HOE Operators.</li> <li>3. Evaluation of Competency by the Board formed under Regulation no. 216 of CMR, 2017.</li> <li>4. A modality to enforce the Safety provisions at HOE/MDO Contracts shall be framed at Area level.</li> <li>5. Regular meetings between Concerned Area GMs and respective Lead Partner of the HOE/MDO Contract and ATR of MoM in a time bound manner.</li> <li>6. Personal Health counseling &amp; Health Check-up of employees of above 50 years age group.</li> <li>7. Ensuring timely distributions of PPEs viz. Mining shoes, Gumboots, Helmets, Dust Masks etc.</li> <li>8. IME &amp; PME of contractual employees at company's hospitals.</li> <li>9. Provision of medical facilities in dispensaries &amp; hospitals.</li> <li>10. Medical treatment facility is provided to the Contractor's workmen in company's hospitals/dispensaries free of cost to the extent of availability of medicines, pathological examination &amp; other surgical treatment with no referral cases as per CIL Office Memorandum Dt. 10.09.2012 regarding OPD &amp; Indoor Medical treatment facility.</li> </ol> <p><b>2. SCCL:</b> SCCL is providing medical facilities to contractual workmen.</p> <p>To promote safe working practices in contractual works:</p> <ol style="list-style-type: none"> <li>i. Training is being given to all contractual workers before deployment in mines and departments.</li> <li>ii. Right from the stage of preparation of NIT, offloading contractors are obligated to adhere to statutory provisions of applicable laws, including mining laws in their operations.</li> <li>iii. Safety Audits are conducted on Contractual workmen safety and regular interaction and communication is established for implementation</li> </ol>

PN	Recommendations	Action taken
		<p>of safety standards. SOPs and COPs have been prepared, issued &amp; are being implemented in contractual works.</p> <p>iv. Special drives taken up by organizing safety awareness campaign week in contractual working areas from 22<sup>nd</sup> January, 2021 to 28<sup>th</sup> January, 2021 and first week of May- 2022 to promote safe culture and facilities.</p> <p>i. Conducted internal safety audit on contractual employees working areas for the assessment of SMP implementation status and advised to make arrangements for achieving the objectivity of the audit for the SMP/SOP implementation in true spirit.</p> <p>ii. Safe Operating Procedures have been prepared for the activities with an emphasis to make the contractual workmen aware of the same and implement in day-to-day activities.</p> <p>iii. Medical facilities are being provided to contractual workmen as inpatient / outpatient in SCCL hospitals.</p> <p>iv. Responsibilities of contractor under Regulations 39 of CMR 2017 are invariably mentioned in the purchase orders. IME/PME is being conducted to all contractual workmen and necessary training is imparted to the contractual workmen.</p> <p>v. Safety awareness programs are conducted to inculcate safety culture among the contractual workmen.</p> <p>vi. During Annual Safety Fortnight, the contractual areas are also assessed by a team headed by experienced and senior multi disciplinary team.</p> <p>vii. "Safety awareness campaign week in contractual working areas" was organized to promote safe working practices in contractual works. During the campaign, awareness was inculcated to all the workmen through safety pledges, safety slogans, Dos &amp; Don'ts in safety, safety procedures, use of safety tools etc.</p> <p>viii. Representatives of contractual workmen are part of the pit safety committee members and they are actively participating in it to promote safety and doing safety campaign in the contractual workmen</p>

PN	Recommendations	Action taken
		<p>camp area.</p> <p><b>3. NLCIL:</b> All Contract Workmen are imparted the Basic / Refresher Training, Initial and Periodical Medical Examination as per statute. Apart from the above, they are provided medical treatment at NLCI Hospital free of charge. They are also provided all welfare amenities like rest shelter, subsidized Canteen food, PPE, Housing, etc.</p> <p><b>4. NTPC:</b> All operational mines of NTPC are being worked in MDO mode which involves deployment of contract workers. The MDO document of NTPC mandates for formulation of Safety and Health policy on part of MDO along with availability of sufficient trained personnel for implementation of the said plan.</p> <p>All facilities pertaining to Occupational health and safety are available to Contract workers and is being monitored closely from all quarters within the Organization. Such facilities include provision of PPEs, canteen facility, potable drinking water, toilets, conveyance, residential facilities, medical, first aid, ambulance etc.</p> <p><b>5. Sasan Power Ltd.:</b></p> <p>a. SMP has been revised in an auditable format as per the guidelines of the DGMS and is audited at regular intervals. The head safety of M&amp;MAE OCP, has been appointed as nodal officer for the implementation of the SMP.</p> <p>b. Hazards identified, risk assessed, control procedures defined with work plan and person responsible.</p> <p>Monthly mock rehearsal has been organised for critical areas.</p> <p><b>6. WBPDCCL: Safety-</b></p> <p>PPE like Helmet, Safety Shoe, Dust Mask, Ear Plugs, Safety Goggles have been issued to all eligible workers.</p> <p>Pre-shift safety talk program is being conducted in 3 shifts and 3 times in a week to bring awareness about safety amongst the employees.</p>



PN	Recommendations	Action taken
		<p>Special safety lectures/classes are being given to all employees about the safety features and its importance.</p> <ul style="list-style-type: none"> <li>• <b>Health-</b> IME, PME and Occupational Health Survey is being done as per schedule of Rule. Wet drilling is implemented to suppress the dust. First Aid room is being maintained on the surface of the mine for instant treatment of injured employees.</li> <li>• <b>Basic facilities:</b> Drinking water, rest shelter, canteen facilities, residential accommodation, medical facilities, conveyance facilities, snacks during rest interval is being provided.</li> </ul>
	<p>v) Enhance awareness and sensitivity amongst all stakeholders of mine safety</p>	<p><b>1. CIL:</b> To enhance mine safety awareness and sensitivity amongst all employees including contractor workers, animation films / video clips on mine accidents and do's &amp; don'ts of mine safety prepared and shared to persons in the last two years through social media groups. Also displayed at contractor workers camp and during training programmes.</p> <p><b>2. SCCL:</b> Status furnished in point No.5 (a)</p> <p><b>3. NLCIL:</b> There is enhanced awareness and sensitivity of Mine safety among Employees, Contract Workmen, Contractors, OEM Companies etc. Safety Pledge and Tool Box meeting are being conducted at the beginning of the shift in work sites of Mines to sensitize the workforce and to create awareness on safe work practices and safe operating procedures.</p> <p>Pit Safety Meetings, Safety Sub-committee meetings and OEM Safety Meetings are being conducted every month to review the safety performance of the respective Mines.</p> <p>ISO Conducts inspection of Mine and conducts safety meeting every Month to review the safety performance of the Mines.</p> <p>Safety Pep Talk is conducted regularly at all work places involving contract workmen and employees at the work place and also during site inspection by the</p>

PN	Recommendations	Action taken
		<p>Workmen Inspector and Safety Division official. Safety instructions are given to sensitize the workmen.</p> <p><b>4. NTPC:</b> NTPC strives hard for enhancing the standards of safety and instilling awareness and sensitization amongst the workers.</p> <ul style="list-style-type: none"> <li>- Safety talks and tool box talks are conducted on a regular basis.</li> <li>- SOPs are formulated in trilingual format (<i>including local language</i>) for better understanding and removing language barriers.</li> <li>- Celebration of Mine Safety Fortnight involving participation from workers.</li> <li>- Display of safety signages, slogans and infograms at prominent places.</li> </ul> <p><b>5. WBPDC:</b> Animation films / Short Video prepared on Safety awareness and being demonstrated in VT /Safety Classes/other Programme</p>
10	<p><b>Wage Revision of coal employees:</b></p> <ul style="list-style-type: none"> <li>● Shri K Lakshma Reddy, Hon'ble Member, Rep. BMS desired that wage revision should be done without further delay. In view of the escalation of the cost of production, he requested the MOC to increase the price of coal so that wage revision could be done smoothly.</li> <li>● Shri Nathulal Pandey, Hon'ble Member, Rep. HMS desired that the minimum guaranteed benefits for next wage revision should be decided before July, 2022 as a morale boosting gesture to workers.</li> </ul>	<p><b>1. CIL:</b> In line with the instructions received from Ministry of Coal, Govt. of India vide letter dated 06.05.2021, the Joint Bipartite Committee for the Coal Industry (JBCCI)-XI for finalization of National Coal Wage Agreement (NCWA)-XI has been constituted vide communication dated 10.06.2021 of CIL. So far six meetings of the committee have been held. In the last meeting the issue of Minimum Guaranteed Benefit (MGB) to the Non-Executive Cadre employees of CIL/Subsidiaries was discussed.</p> <p><b>2. SCCL:</b> To be finalized by JBCCI after discussions with National Trade Unions.</p> <p><b>3. NLCIL:</b> Not Applicable</p> <p><b>4. TSGENCO:</b> Wages are being paid as per Chief Labour Commissioner (Central) notification on minimum wages &amp; are revised in accordance with CLC Notification.</p> <p><b>5. Sasan Power td.:</b> There is no discrepancy in the wages of contract's employee.</p>

PN	Recommendations	Action taken
		<p><b>6. WBPDCCL:</b> Wages of the contractual workers are based on minimum wages as per Govt. Act/Rule</p>
<p><b>11</b></p>	<p><b>Revival of UG mines:</b></p> <ul style="list-style-type: none"> <li>● Shri K Lakshma Reddy said that Coal would remain in use for another 50 years. Keeping in view of recent commitment of Govt. of India in phasing down the use of coal by 2070, he desired that more emphasize should be given to revival of UG mines by using latest advanced mining technology as OC mines shall soon be depleted.</li> <li>● Shri Sanjay Kumar Singh said that at present about 450 million tonnes of coal standing on pillar is lying in the underground mines of Coal India. With the help of planning department, get out safely after conducting a scientific study.</li> </ul>	<p><b>1. CIL:</b></p> <p>About 67 nos. of mines have been identified, both in brownfield and greenfield areas, with constraints involving different resource requirements such as timely grant of EC, FC, possession of lands, diversion of forest land etc., with cumulative proposed production of about 46.5 Mt in the year 2027-28.</p> <p>A draft UG Vision Plan has been prepared with the following objective, which is under finalization.</p> <ul style="list-style-type: none"> <li>● Introduction of more and more CMs in the Indian mines wherever feasible.</li> <li>● Implementing a large number of Highwall mines to improve %age of extraction and exploit the idle coal which otherwise would be lost forever in the batter of old / discontinued / running OC mines..</li> <li>● Planning high capacity UG mines with higher degree of digitization.</li> <li>● Revival of loss-making mines where ever possible through introduction of MPT. A technical feasibility study has already been done by ISM-SCCL for 90 old UG mines.</li> <li>● Identifying seams amenable to Longwall mining in virgin area and within the leasehold area of mines where upper horizons have been decoaled and possibility exists to extract lower seams.</li> <li>● Improvement in productivity of the current mines through reengineering and amalgamation.</li> <li>● Adopting the concept of composite pricing mechanism for assessing viability of UG mines</li> <li>● Policy intervention required for sale of coal produced from UG mines exclusively through e-auction route, especially for the coal grades of G10 and above.</li> </ul> <p>Details are given in <b>Annexure Table-4 (Page-62-66)</b>).</p> <p><b>2. SCCL:</b></p> <p>i. In SCCL, mines are closed after the exhaustion of reserves and as per the Mine closure plan. Due to adverse geo-mining conditions and availability</p>

PN	Recommendations	Action taken
		<p>of limited coal blocks, underground mines are being converted to opencast for achieving the production targets.</p> <p>ii. SCCL has introduced Bulk production technologies wherever geo mining conditions are favorable such as Cutting and conveying technology (Continuous Miner, Longwall, Bolter miner, Road header) for winning coal and for ensuring safety.</p> <p>iii. Manual mining has been replaced out in UG mines with semi mechanization and mechanization. Mechanization details in SCCL UG Mines (Population) are - SDLs (113), LHD (11), CM (5), LW (1) &amp; BM (2). Further, latest advanced technology such as tube bundle Gas Monitoring, tele monitoring Systems area also adopted.</p> <p><b>3. NLCIL:</b> Not Applicable</p> <p><b>4. TSGENCO:</b> All coal carrying trucks are covered with proper tarpaulin to prevent dust and coal spillage. Effective water spraying arrangements are provided near coal loading points.</p>
12	<p><b>Issues related to CMPF:</b></p> <ul style="list-style-type: none"> <li>● Shri K Lakshma Reddy highlighted blunders in investment made by CMPF Authorities and alleged corruption took place in investment processes. He desired that matter should be probed either by CBI or SIT to unearth truth.</li> <li>● Shri Nathulal Pandey desired that proper enquiry should be conducted pertaining issues of alleged corruption in CPMF.</li> </ul>	<p><b>MOC :</b> Letter has been issued to CMPFO for action taken against the issue. Matter is under consideration.</p>
13	<p><b>Zero Accident in mines:</b></p> <ul style="list-style-type: none"> <li>● Shri K Lakshma Reddy desired that all coal companies should take</li> </ul>	<p><b>1. CIL:</b> To achieve the Zero Harm in the mines of following steps has been taken:</p> <ul style="list-style-type: none"> <li>● Site specific &amp; Risk assessment based <b>Standard Operating Procedure (SOPs)</b> for all mining and</li> </ul>

PN	Recommendations	Action taken
	<p>appropriate steps to achieve zero accident mines similar to aviation industry.</p> <ul style="list-style-type: none"> <li>● Shri Nathulal Pandey said that there were more accident at OC and surface of mines than UG mines primarily due to human errors. He desired that details discussion should be made on how to achieve zero accident potential in all mines and preventive measures should be taken thereby. He desired that a suitable slogan on “ZERO ACCIDENT” should be propagated vigorously. He emphasized on imparting quality training and retraining to workers.</li> <li>● Shri Sanjay Singh desired that function of mine level safety committee should be strengthened for achieving zero accident in mines and such meetings should occasionally attend by officials of DGMS and MOC</li> </ul>	<p>allied operations are formulated and being implemented.</p> <ul style="list-style-type: none"> <li>● Risk assessment, based on Job Safety Analysis site specific, Safety Management Plan (SMP) have been prepared for each mine by involving mine officials and workmen and the same are being reviewed on a regular basis for improving safety standards.</li> <li>● Strata Control and Monitoring Plan (SCAMP) has been prepared and being implemented in all UG mines.</li> <li>● Interacting and holding meetings with various safety forums like Safety Committee in every month in every mine.</li> <li>● Inculcating Tool Box Safety Talks before commencement of work in the mines.</li> <li>● Creation of Safety Culture &amp; Safety Climate among workmen.</li> <li>● WhatsApp group are created in all working mines and Safety Video Clips/Animation films on various safety procedures, Dos &amp; don'ts related to mine operations, mine accidents are being prepared and mutually shared amongst all employees. These Video Clips/Animation films are being used widely at different VTC's and other establishments to enhance awareness on safety at grass root level workmen including contractual work persons.</li> <li>● Safety oath and safety talks are being delivered in each mine at the beginning of the shift.</li> <li>● Safety Audit for 2022-23 is going on for assessing safety status of all mines of CIL. Safety Audit also suggested remedial measures for improving safety standards.</li> <li>● Training on Mine Safety.</li> <li>● “Suraksha Mitra Mandli” i.e. Safety Circle has been formed to enhance safety culture.</li> </ul> <p><b>2. SCCL:</b></p> <ol style="list-style-type: none"> <li>i. SCCL is using SMP approach and its implementation for achieving zero accidents in mines.</li> <li>ii. After the promulgation of CMR-2017, SCCL has prepared SMPs for the mines under the guidance of DGMS.</li> <li>iii. Version 1.0 of SMP were submitted for all the Mines to DGMS and 80 % of the Mines have</li> </ol>

PN	Recommendations	Action taken
		<p>submitted Version 2.0 of SMP.</p> <p>iv. SCCL is taking steps for the implementation of SMP and for creating awareness amongst all the employees regarding the same.</p> <p>v. Safety audits on the implementation of SMP are carried out once in three months to check the effectiveness of implementation.</p> <p><b>3. NLCIL:</b> In NLCIL, necessary steps are taken to achieve zero accident in Mines.</p> <p>Apart from what have already been stated in previous points, similar to the Aviation Industry, announcement through Public Address System of the safe work practices and Safe Operating Procedures are done at the Mine entrance every shift beginning to sensitize the workmen in preventing accidents.</p> <p>Also, in all SME machines, Public Address System is installed so that, the Machine In-charges and SME operators can give safety instructions to the machine crew and also to the maintenance crew before starting the machine at the shift beginning, during maintenance and immediately after maintenance just before the starting of the machine.</p> <p>Also, cameras are installed at various locations in all SME machines and a monitor is installed in the operator cabin to enable the SME operator for real-time monitoring of the machine vulnerable areas.</p> <p>In addition, cameras are also installed at various strategic locations inside mines for real time monitoring of the mine sites.</p> <p>Safety Pledge and Tool Box meeting are being conducted at the beginning of the shift in all places of Mine to sensitize the workforce and to create awareness on safe work practices and safe operating procedures to achieve “ZERO ACCIDENT”.</p> <p>Safety Pep Talk is being conducted regularly at all work places involving contract workmen and employees at the work place and also during site inspection by the Workmen Inspector and Safety Division official. Safety instructions are being given to sensitize the workmen.</p> <p>Safety meetings are conducted every Month and also</p>

PN	Recommendations	Action taken
		<p>deliberated in Bipartite and Tripartite meeting to achieve zero accident potential in Mines. Necessary preventive measures are being taken to achieve this.</p> <p>Quality training and retraining of workers are imparted by deploying Simulators, Virtual Reality Images ,Safety Videos, etc., at GVTC, Training Centers &amp; Learning &amp; Development Center (LDC) where good infrastructure is available.</p> <p>Apart from the Mine level Safety Committee members, other Departmental Heads also participate in the Pit-Safety committee meeting conducted every month. This is done to ensure safety awareness and target of Zero Harm potential which is uniform throughout the Mines.</p> <p>Bipartite and Tripartite meetings are also conducted in which Management, Trade union representatives and DGMS officials attend the meeting.</p> <p><b>4. NTPS:</b> Zero Incident is the Organizational goal which is incorporated in the Safety and Health framework for coal mining projects of NTPC. Rigorous efforts are being put in from all quarters in achieving this goal.</p> <p>Training and upliftment of people and workforce is also an important aspect which is well recognized in our safety framework. Quality training through renowned agencies and on specialized topics are being imparted on a regular basis along with knowledge sharing sessions to foster continual learnings.</p> <p>Pit Safety Committee has been constituted at all coal mining projects of NTPC in compliance with the provisions in statutes. Meeting of safety committee members is being conducted on a monthly basis and the committee is suitably strengthened for effective functioning in letter and spirit.</p> <p><b>5. Bicharpur Coal Mine, (UTCL):</b> Walk through-out inspection, regular monitoring of unsafe act &amp; unsafe condition, safety toll free number released for all workers &amp; officers to complain any safety regarding issue directly to the corporate safety cell Head Quarter &amp; their name and position will be kept confidential.</p>

PN	Recommendations	Action taken
		<p><b>6. TSGENCO:</b> Mine level Pit safety committee has been constituted. In all the forums of Safety meetings &amp; pit talks emphasis is given on safety practices to maintain ZERO ACCIDENT and ZERO HARM MINE.</p> <p>ii. All the workmen and operators are imparted quality training at MVTC and also all members of Safety Management committee are trained in Safety Management Plan (SMP) by SIMTARS (Safety In Mines Testing And Research Station ) trainers from SCCL.</p> <p><b>5. WBPDCCL: Steps taken for achieving zero accident-</b></p> <ul style="list-style-type: none"> <li>• Basic Training, Refresher Training and Special Training are being imparted to all workers in the mine through VT Centre.</li> <li>• Pictorial safety posters has been displayed at conspicuous places in the mine.</li> <li>• SOP in local language has been displayed, distributed and made understood to all workers in the mine.</li> <li>• Safety talk is being given at regular intervals.</li> <li>• Any incident/accident happened in mining industry is being discussed with their cause and preventive measures.</li> <li>• Pit Safety Committee meeting is being organized at regular intervals.</li> <li>• Always maintaining the gradient of haul road gradient under 1 in 16 with proper berm.</li> <li>• Periodical inspections are being done for all HEMM regarding the safety features as per the DGMS norms.</li> <li>• Dust/Air pollution is being controlled or suppressed continuously by high pressure water sprinklers.</li> <li>• AAQ/Dust monitoring is being done continuously by PM10, PM2.5 in the mine as well as in the railway sidings.</li> <li>• Illumination is being maintained as per the DGMS standards.</li> </ul> <p>Discussion of hazard identification and risk management in safety committee meeting&amp; other Safety forum.</p>



PN	Recommendations	Action taken
14	<b>Safety issues in SCCL</b>	<b>SCCL :</b> Status furnished in point No.5(a)
15	<p><b>Wage of Contractual workers and other issues related to SCCL:</b></p> <ul style="list-style-type: none"> <li>• Shri Manas Mukherjee desired that all contractual workers should be given wages as per recommendation of HPC for fixation of wages to contractual employees.</li> <li>• He said that SCCL is not paying compensation for covid-19 death as well as to accidental death of any contractual employee. He desired that SCCL should pay compensation in time.</li> </ul>	<p><b>SCCL:</b></p> <p>i. There is high stripping ratio for OC Mines (1 in 7.5 to 1 in 13) with steep gradient, geological disturbances, loss making underground Mines.</p> <p>ii. Rs. 15 lakh is extended to the next of kin of contractual workmen engaged on outsourced activities dying due to COVID-19 with effect from 24.03.2020.</p> <p>SCCL is paying compensation in case of accidental death to contractual workmen.</p>
16 & 27	<p><b>Land acquisition for OC mine:</b></p> <ul style="list-style-type: none"> <li>• Shri Nathulal Pandey desired that land acquisition and rehabilitation policy should be simplified for easing the present complicated process.</li> <li>• Shri Sanjay Singh desired that adequate lands should be provided for maintaining proper benching as well as OB dump geometry.</li> <li>• Addl. Pt. raised by Shri Sanjay Kumar Singh – In most of subsidiaries of Coal India, opening mining is become vertical due to environmental, forest clearance and land acquisition. Benching is coming to an end. The dangers of disasters are increasing. Especially SECL's Gevra, Dipka and Kusmunda Mines. Small open mines and newly opened mines are also</li> </ul>	<p><b>1. CIL:</b> In most of the cases, subsidiaries are acquiring land under CBA (A&amp;D) Act 1957.</p> <p>Apropos the RFCTLARR (Removal of difficulties) order 2015 dated 28.08.2015, the compensation, R &amp; R benefits and infrastructure facilities for the land acquired under CBA (A&amp;D) Act, 1957 are to be provided as per schedule I, II &amp; III of RFCTLARR Act 2013. MCL is following Odisha R&amp;R policy.</p> <p>It is fact that subsidiaries of CIL are facing difficulties in taking physical possession of tenancy land, govt land as well as forest land like in Rajmahal OCP, Chitra OCP of ECL, Magadh OCP of CCL, Kaniha OCP, Hingula OCP, Ananta OCP, Samaleswari OCP etc of MCL, Gevra OCP, Dipka OCP &amp; Kusmunda OCP of SECL.</p> <p>During review meeting under the chairmanship of Secretary, MoC, it was decided that in the best interest of organization, looking to ground conditions and the profitability of the project, the respective boards of the coal companies will have the freedom to extend better terms to the land holders as well as non-title holders who are accordingly certified by the state government authorities.</p>

PN	Recommendations	Action taken
	<p>not able to open due to land acquisition and adequate compensation. Cooperation of the Ministry is expected.</p> <ul style="list-style-type: none"> <li>● Shri R K Sharma desired that proper steps should be taken for acquisition of lands.</li> <li>● Shri Manas Mukherjee said that due to land acquisition problems, proper benching at OC mines is not being done and it endangers safety.</li> </ul>	<p>Accordingly all subsidiaries are putting their best efforts to acquire land for coal mining.</p> <p>Details are given in <b>Annexure Table-5-(Page-67 )</b>.</p> <p><b>2. SCCL:</b></p> <ul style="list-style-type: none"> <li>i. In SCCL, land is acquired as per LA Act 2013 and R&amp;R packages are implemented for all the villages as per G.O.Ms.No.68 dated 08.04.2005 and also Corporate Social Responsibility (CSR) is implemented.</li> <li>ii. However, Land acquisition is posing a problem for working OC Mines in SCCL</li> </ul> <p><b>3. NLCIL:</b> NLCIL brought out a revised R&amp;R Policy with enhanced benefits to the Project Affected Families and the same is considered to be one of the best policies in India. Adequate lands are acquired for advancing the Mine and maintaining the proper benching.</p> <p>Internal dumping by backfilling the overburden soil in de-coaled area is being followed in Mines and the OB dump geometry is being maintained. NLCIL Management is taking all necessary steps for acquisition of lands.</p> <p><b>4. NTPC:</b> Land Acquisition and R&amp;R policy approved by the State Government is followed at our coal mining projects along with other best practices on community &amp; social development front in order to aid the process of land acquisition for our coal mining projects.</p> <ul style="list-style-type: none"> <li>ii). Support from District Administration is being taken in resolving of cases beyond control of NTPC and such help is being extended as and when required.</li> <li>iii. Advance planning on requirement of land is being carried out across our coal mining projects so as to ensure sufficient availability of land for safe and uninterrupted mining operations. The progress on land acquisition is closely monitored at the highest level within the Organization.</li> <li>iv. All coal mining projects of NTPC are equipped with a dedicated Land Acquisition and R&amp;R</li> </ul>

PN	Recommendations	Action taken
		<p>department with trained full-time staffing to ensure smooth functioning on this front.</p> <p>v. Apart from the land acquisition department of NTPC, our MDOs are also mandated to maintain dedicated staffs for Land acquisition to ensure sufficient availability of land for mining.</p> <p>vi. Advance planning on requirement of land is being carried out across our coal mining projects so as to ensure sufficient availability of land for safe and uninterrupted mining operations. The progress on land acquisition is closely monitored at the highest level within the Organization.</p> <p>vii. Importance of land acquisition for mining projects of NTPC has been recognized by the top management and hence it is being monitored closely at the highest level within the Organization. Support from District Administration, State Government is being taken for quickly resolving any issues pertaining to LA-R&amp;R.</p> <p><b>5. WBPDCCL:</b> Land acquisition for Mining and R &amp; R is being done following provisions of Central/State Acts and Rules emphasizing on Local Requirement.</p>
17	<p><b>Contractor Worker Safety:</b></p> <ul style="list-style-type: none"> <li>● Shri Nathulal Pandey desired that wages of all contractual workers should be as per HPC recommendation only. He further desired that gratuity as per act should be provided to the next of kin of deceased contractual employee who died in mine accident.</li> <li>● Shri R K Sharma desired that NIT for HOE patch should incorporate higher capacity of HEMM to reduce the traffic density inside OC mines.</li> </ul>	<p><b>1. CIL:</b> Contractor workers are paid applicable wages by the contractors as under:-</p> <p>(a) <b>Contractor workers engaged in mining activities:</b> Wage rates as recommended by a High Power Committee. The same is circulated by CIL with revision of VDA every 1<sup>st</sup> April and 1<sup>st</sup> October.</p> <p>(b) <b>Workers/Security Personnel engaged by ESM agencies sponsored by DGR:</b> Payment of wages is based on DGR wage structure.</p> <p>(c) <b>For all other works:</b> As per minimum wages specified by Central or by respective State Government.</p> <p>(d) Provision for deployment of higher capacity of HEMMs in the NIT for HOE patch for longer duration is being incorporated wherever required.</p> <p><b>2. SCCL:</b></p> <p>i There is high stripping ratio for OC Mines (1 in 7.5</p>

PN	Recommendations	Action taken
		<p>to 1 in 13) with steep gradient, geological disturbances, loss making underground Mines.</p> <p>The contractors are advised to comply with all statutory obligations including payment of Gratuity Act and contract terms and conditions.</p> <p>ii. Over Burden Removal Contracts (&gt;6 years) and where ever geometry is favourable, higher capacity HEMM provisions are incorporated in NIT.</p> <p><b>3. NLCIL:</b> Contract workers are paid as per contract agreement.</p> <p><b>4. NTPC:</b> HPC wages are being provided to the contract workers deployed through Mine Developer cum Operator (MDO) at coal mining projects of NTPC.</p> <p>ii) The MDO agreement at all coal mining projects of NTPC, enlists the fleet size of HEMMs (<i>along with capacities</i>) to be deployed by Mine Operator as per approved Mining Plan. Variations, if any, from this fleet is with proper approval as per extant provisions / guidelines and based on proper technical justifications /study.</p> <p>iii) Apart from the above provisions, traffic density studies are carried out at all our coal mining projects in order to assess the traffic conditions and possibilities of optimization from time to time.</p> <p><b>5. TSGENCO:</b> Higher capacity HEMM (100 T Dupers) are being used in the suitable parts of the mine to reduce the density of the moving machines/Dumpers.</p> <p><b>6. WBPDCCL:</b> Wages of the contractual workers are based on minimum wages as per Govt. Act/Rule. Gratuity is being paid to the next of kin of deceased contractual employee. Higher capacity of HEMM is Planned to reduce Traffic Dencity</p>
18	<p><b>Compliance of recommendations of Rajmahal Court of Inquiry (COI):</b></p> <ul style="list-style-type: none"> <li>Shri Nathulal Pandey desired that recommendations of</li> </ul>	<p><b>1. CIL:</b> Subsidiary wise status of compliance of Recommendations of Rajmahal Court of Inquiry (COI) are given in <b>Annexure Table-6 (Page-68-71)</b>.</p>

PN	Recommendations	Action taken
	<p>Rajmahal COI should be complied.</p> <ul style="list-style-type: none"> <li>Shri R K Sharma desired that recommendations of Rajmahal Court of Inquiry (COI) should be complied.</li> </ul>	<p><b>2. SCCL:</b> Recommendations of Rajmahal Court of inquiry are being complied. Third party audit has been conducted by retired DGMS officials in Adriyala Longwall Project, GDK 11 Incline, PVK 5 Incline, JVR OC II, PK OC and RG OCP III mines of SCCL.</p> <p><b>3. NLCIL:</b> Complied.</p> <p><b>4. WBPDCCL:</b> Compliance.</p>

19	<p><b>Fly ash dumping in OC mine:</b></p> <ul style="list-style-type: none"> <li>Shri C J Joseph, Hon'ble Member, Rep. AITUC raised the issue of fly ash dumping in running OC mines as per MOEF &amp; CC Notification dated 31.12.2021. He said that as per the report of scientific study done by IIT-BHU in 6 OC mines of NCL, the factor of safety of OB dumps would be reduced to 0.5 -0.70 from existing 1.7-1.8 due to filling of fly ash and can lead to dump failures. He further pointed out huge financial implications to the mine owner due to non-implementation of provisions of latest fly ash dumping in running mines as per the notification. He said that fine would be more than Rs 29,000 Crore for NCL, where stripping ratio is very high and shall make NCL financially unviable. He requested MOC to take up the issue with MOEF&amp;CC for safety as well as financial liability.</li> </ul>	<p><b>1. CIL :</b> Twenty-two (22) mine voids in CIL have been identified for fly ash dumping.</p> <p>At present fly ash dumping is going on in nine (09) non-producing/abandoned mines and no fly ash has been dumped in any producing mines.</p> <p>However, scientific study for dumping/mixing of fly ash with OB at running mines of NCL along with its viability and safety aspect of man and machinery was carried out by IIT BHU. The report showed that the factor of safety decreases during the monsoon season and hence dumping/mixing of fly ash with OB is not safe for running mines of NCL.</p> <p>Concerns of subsidiaries have been taken up with the Ministry. Details are provided in <b>Annexure Table-7(Page-72)</b>.</p> <p><b>2. SCCL:</b> In SCCL stripping ratios are high (1 in 7.5 to 1 in 13) in Open cast mines and internal and external OB dumps have been formed and most of the OB dumps have reached a height of more than 120 meters. OC mines are located close to inhabited areas and also there is a problem of Land acquisition, hence fly ash dumping is not techno-economically feasible.</p> <p><b>3. NLCIL:</b> In NLCIL Mines, backfilling of de-coaled area by OB material is being practiced.</p> <p>Fly ash produced in Thermal Stations is being utilized by nearby Cement Companies and so not</p>
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	<ul style="list-style-type: none"> <li>• Shri R K Sharma desired that fly ash dumping in running OC mines should be stopped for sake of stability of OB dump.</li> </ul>	<p>available for dumping. Fly ash is not being dumped in NLCIL Mines.</p> <p><b>4. NTPC:</b> A pilot project on determining the optimum mix of fly ash along with OB for disposal in external OB dumps is being carried out at one of our coal mining projects, viz. Dulanga. This project is being carried out with due permission from authorities and under the guidance of M/s CIMFR who has been appointed for carrying out the scientific study. The recommendations of the report of CIMFR is being followed and Factor of safety maintained is more than 1.5.</p> <p><b>ii)</b> The pilot project on fly-ash mixing along with OB for disposal in external OB dumps, which is being carried out at our Dulanga Coal Mining Project has the approval from relevant authorities and is being carried out based in scientific study conducted by M/s CIMFR.</p>
20	<p><b>Amendment of Mine Vocational Training Rules (MVTR)- 1966 : Shri C J Joseph said that</b> MVTR-1966 had been framed long back when mining conditions of the country are totally different and MVTR does not cater to the need of today's working conditions of the mine. He desired that DGMS / Ministry of labour &amp; Employment should take steps to amend MVTR.</p>	<p><b>DGMS:</b> The draft of the Occupational Safety Health and Working Conditions (Central) Rules 2021, framed under Section 135 Occupational Safety Health and Working Conditions Code, 2020, was notified in the gazette of India G.S.R 729 (E)dated 19<sup>th</sup> November, 2020. Mine Vocational Training Rules (MVTR), 1866 is also being inserted in the above said rules.</p>
21	<p><b>Amendment of Mine Rescue Rules-1985 (MRR-1985)</b> <b>Shri C J Joseph said that</b> Mines Rescue Rules -1985 had no provisions for rescue and recovery operation on OC mines. At present 90 % of India's coal production are from OC mines. He desired that MRR-1985 should be amended to accommodate rescue operations at OC mine also.</p>	<p><b>DGMS:</b> No provision has been made in Mines Rescue Rules 1985 for rescue and recovery operation in OC mines.</p> <p>However provisions under Regulation 252 of Coal Mines Regulation 2017 has been made for <b>“Emergency Response and Evacuation Plan”</b> which mandates that the owner, Agent and manager of <b>every mine</b> shall have a comprehensive programme in place to respond to any injury, illness or emergency that may occur at each mine including foreseeable industrial and natural disasters which</p>

		<p>shall include immediate first-aid treatment, medical treatment, transportation and evacuation of injured persons, procedures to respond to emergencies that arise at the mine and make arrangements for the rescue of persons incapacitated or trapped in coal mines.</p> <p>Assistance of NDRF/SDRF should be sought in case of emergency at OC mines.</p> <p><b>2. NLCIL:</b> Currently, MVTR is followed along with necessary skill development training.</p> <p>Training needs assessment is done and accordingly training plan is prepared.</p> <p><b>3. Bicharpur Coal Mine,( UTCL)</b> We have introduced two continuous miner packages with low height &amp; standard height cutting technology to promote blast free technology.</p>
22	<p><b>Blast Free coal mining:</b> Shri C J Joseph desired that all coal companies should promote blast free coal mining for the sake of safety and environment.</p>	<p><b>1. CIL:</b> Surface Miners, Highwall Miner, Continuous Miner, Ripper for OB removal &amp; L/W mining are increasingly adopted in CIL mines where feasible. Details are provided in <b>Annexure Table-8(Page-73)</b>..</p> <p><b>2. SCCL:</b></p> <ul style="list-style-type: none"> <li>i. SCCL has introduced Bulk production technologies such as Cutting and conveying technology (Continuous Miner, Long wall, Bolter miner, Road header) for winning coal and for ensuring safety in all the technically feasible underground mines and wherever geo mining conditions are favorable.</li> <li>ii. In Open cast there are limited reserves amenable to be worked by Surface Miner due to steep gradient, geological disturbances, thin seams. Continuous Mines have been deployed in two OC Mines in SCCL(KOCP mine, Yellandu Area and PK OCP Manuguru Area.</li> <li>iii. Surface miners have been deployed in two OC Mines in SCCL (KOCP mine, Yellandu Area and PK OCP Manuguru Area.</li> <li>iv. Eccentric Rippers for excavating OB have been deployed in two OC Mines and it is proposed to be introduced in one new OCP Mine.</li> </ul>

		<p>v. Blast free coal mining technology such as Surface miner (2 Mines), and Ripper Technology (2 Mines) in OC mines, and CM (4 Mines - 5 Nos.) Technology, LW (1 Mine) BM (2 Mines) in UG mines are already in operation.</p> <p>vi. Depending on the performance and requirement (suitability), it is proposed to increase the Blast free coal mining technology wherever feasible.</p> <p><b>3. NLCIL:</b> In Neyveli Mines, Bucket wheel Excavators (BWE) are deployed for excavation of Lignite and Overburden which is almost blast free.</p> <p>Only, in Overburden benches at certain locations where the soil condition is hard, blasting is done for shattering the hard strata for easy BWE operation</p> <p><b>4. NTPC:</b> Blast free coal mining is being promoted at all coal mining projects of NTPC through deployment of Surface Miners in coal cutting.</p> <p><b>5. Bicharpur Coal Mine,( UTCL):</b></p> <p>We have introduced two continuous miner packages with low height &amp; standard height cutting technology to promote blast free technology.</p> <p><b>6. TSGENCO:</b> Where ever possible the soft coal seams are being extracted with the help of excavators without blasting .</p>
23	<p><b>Formulation of Occupational Health &amp; Safety Policy:</b> Shri C J Joseph desired that all coal companies should frame appropriate Policy for Occupational Health and Safety as per requirement of CMR-2017 and implement the same in mines.</p>	<p><b>1. CIL:</b> Draft Occupational Health &amp; Safety Policy is already framed by a committee constituted for that purpose. The said draft is under process of finalization.</p> <p><b>2. SCCL:</b></p> <p>Occupational Health &amp; Safety Policy of SCCL is to be formulated</p> <p>SCCL is taking measures for conducting IME and PME as mentioned</p> <p>i. FOR EMPLOYEES BELOW 45 YEARS OF AGE: They are screened every 5 years (Periodical Medical Examination once in 5 years) as per the recommendations 11<sup>th</sup>&amp; 12<sup>th</sup> Conferences on Safety and all the tests are conducted and they are screened for Occupational Diseases as well as other associated co-morbid conditions such as</p>



		<p>Diabetes Mellitus, Hypertension ,CAD,CKD etc.</p> <p>ii. FOR EMPLOYEES ABOVE 45 YEARS OF AGE: Periodical Medical Examination is conducted once in every 2 ½ years, as per the recommendations of 11<sup>th</sup>Conference on Safety.</p> <p>iii. MEDICAL EXAMINATION BEFORE RETIREMENT (MEBR): All the employees who are due for retirement are screened one year before their retirement separately for whom target lists are prepared and sent to find out, if they are suffering from early stage of Pneumoconiosis.</p> <p>iv. FOOD HANDLERS EXAMINATION: Carried out stool examination and Haemogram once in six months, sputum for Acid Fast Bacillus (AFB) and chest X-ray once in a year for the food handlers, who are working at canteens, guest houses and hospitals etc.</p> <p>v. EYE REFRACTION TEST: Carried out once in a year for the HEMM / Drivers to correct the refractive errors, or any other Eye diseases.</p> <p>vi. POST RETIREMENT MEDICAL EXAMINATION: When confirmed patients of Pneumoconiosis are retired on superannuation, they are examined every year for upto 10 years post retirement to know the progression of Pneumoconiosis.</p> <p>vii. Health profile of employees are maintained in Hospital Management System (HMS) and in SAP for tracking the health status of employees</p> <p><b>3. NLCIL:</b> As per CMR 2017, safety and health policy is framed at NLCIL and is implemented in the Mines.</p> <p><b>4. NTPC:</b> A dedicated Safety and Health policy is framed for coal mining projects of NTPC. Apart from this, there are dedicated Safety Management Plans framed for all coal mining projects which is approved by Owner and is being implemented at respective projects.</p> <p>As a further testament to our commitment towards upliftment of occupational health and safety, two of our coal mining projects along with two of our MDOs</p>
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		<p>have attained certification under ISO 45001 standards. Remaining mines and MDOs are also in the process of attaining this certification and they shall be attaining it soon.</p> <p><b>5. Bicharpur Coal Mine,( UTCL):</b> We have SHE plan complying with the UTCL standard and Mine act 1952 &amp; Mine rule 1955.</p> <p><b>6. TSGENCO:</b> Health and safety policy formulated and is being implemented.</p> <p><b>7. WBPDCCL:</b></p> <ul style="list-style-type: none"> <li>• Safety Management Plan has been prepared and reviewed time to time</li> <li>• Health camp is being organized at regular interval at mine</li> <li>• Occupational health services are provided by existing medical infrastructure and by making agreement with super specialty hospital outside.</li> </ul>
24	<p><b>R&amp;D in coal mine:</b> Shri C J Joseph desired that all coal companies should spend more on R&amp;D. He also desired more inputs for safety today so that result would be visible in coming years.</p>	<p><b>1. CIL:</b> Several R&amp;D Projects on mine safety have already been taken up. Details are provided in <b>Annexure Table-9(Page-74-75) and Annexure Table-9A(Page- 76-77).</b></p> <p><b>2. SCCL:</b> Whenever there is a specific technological requirement in working Mines such as strata control, stability of bench and dump slopes, nalla diversions, formation of bunds etc subject wise institutes are looped in and scientific studies are awarded</p> <p><b>3. NLCIL:</b> NLCIL has an R&amp;D unit called CARD and necessary funds are provided for R&amp;D activities.</p> <p>Inputs for safety is being given and projects are undertaken.</p> <p><b>4. NTPC:</b> Matter noted. Innovation, modernization, technological upgradations and harnessing of IT initiatives are encouraged across NTPC and is one of our key thrust areas to improve the standards of Safety at our coal mining sites.</p> <p><b>5. Bicharpur Coal Mine,( UTCL):</b> Exploring Methods to support thin seam i.e. 1.5m and 1.8m</p>

		<p><b>6. TSGENCO:</b> Reputed Institutions services are being taken as per the requirement.</p> <p><b>7. WBDCL:</b> R&amp;D project related to controlled blasting, slope stability of dump and feasibility study of excavation of deepest seam of mine is carried out by scientific Agency like CIMFR, BIT, IIT, etc.</p>
25	<p><b>Illegal coal mining issues:</b></p> <ul style="list-style-type: none"> <li>Shri Manas Mukherjee expressed his serious concern on problem of illegal mining particularly in ECL and BCCL command areas. He desired restorations and reclamations as per Mine Closure Plan should be properly done to control such illegal activities.</li> <li>Shri R K Sharma desired that Local Police should not frame case against mine manager for illegal mining activities as it is a Law &amp; Order and Security issue. He also desired that illegal mining activities should be stopped as it endangers mine safety. He said proper fencing should be provided at small OC mines too.</li> </ul>	<p><b>1. CIL:</b> Nos. of illegal mining cases recorded within lease hold in last year (2021) &amp; current year (2022), FIR Lodged and Steps taken to prevent illegal Mining in ECL, BCCL &amp; CCL are provided in <b>Annexure Table-10(Page-78-79)</b>.</p> <p><b>2. NTPC:</b> No such issue of illegal mining is present at mines of NTPC. Approved Mine Closure plan is being implemented at our coal mining projects and report in this regard is being submitted regularly.</p> <p><b>3. WBDCL:</b></p> <ul style="list-style-type: none"> <li>Reclamation and Restoration is being done as per mine closure plan.</li> <li>Total guidelines and SOP has been framed to prevent illegal mining activity in and around the mine.</li> <li>Dossier of illegal mining circulated to all concerned</li> <li>Barbed wire fencing is being erected along the mine boundary.</li> </ul>
26	<p><b>Dust suppression in mines:</b></p> <ul style="list-style-type: none"> <li>Shri Manas Mukherjee desired that dust problem particular at Gevra &amp; Dipka Project of SECL and Jharia Coalfields should be mitigated.</li> <li>Shri Udayendu Das desired that water harvesting should be done to supply water for spraying particularly in summer months.</li> <li>Shri Sanjay Kumar Singh said that there is huge amount of dust in all mega projects of OCM in Coal India,</li> </ul>	<p><b>1. CIL:</b> For mitigating fugitive dust emissions various steps have been taken particularly in mega OCs of SECL.</p> <p>Gevra OC: 32 nos of mobile water sprinkler with capacity from 18 KL to 70 KL.</p> <p>734 nos. of Fixed water sprinklers along the road side also provided.</p> <p>Total 48 Nos of Mist Spray Sprinklers and 10 Nos of Water Spray System are in operation in the entire Coal Handling Plant.</p> <p>Additionally, 4 nos. of truck mounted long-range fog</p>

	<p>necessary and urgent measures need to be taken in NCL, MCL, SECL, BCCL and other companies.</p>	<p>cannons with 40 meter through provided.</p> <p>2 nos. mechanical road sweeping machine deployed for cleaning of roads.</p> <p>Dipka OC: 8 nos of mobile water sprinkler with capacity from 28 KL to 70 KL.</p> <p>222 nos. of mist sprinklers are provided at CHP and siding to mitigate dust emission. 289 nos. of Fixed water sprinklers along coal transportation road also provided.</p> <p>Additionally, 1 no of truck mounted long-range fog cannons with 40 meter through provided.</p> <p>1 no mechanical road sweeping machine.</p> <p>Subsidiary-wise details of dust suppression are given in <b>Annexure Table- 11 (Page-80)</b>.</p> <p><b>2. SCCL:</b> 102 Nos. of 10/12 KL, 67 nos. of 28 KL and 3 nos. of 80 KL mobile water sprinklers are deployed for effective dust suppression in all Open cast projects.</p> <p><b>Measures taken to improve dust suppression at CHP</b></p> <p>i. Dust suppression systems including dust extraction arrangements were being commissioned at OC3 CHP, RG2, SRP OC CHP, Goleti CHP and KCHP MNG.</p> <p>ii. 25 Nos of mobile dust suppression systems were commissioned in addition to the existing 09 units. Procurement of another 25 nos of Mobile dust suppression machines to various CHPs &amp; Pit head CHPs is in process.</p> <p>iii. 03 nos. of Pre Weigh Bin Truck loading Systems were commissioned with built in integrated dust suppression systems at Kistaram OC (02 nos), and IK OC (01no). One more PWTL System is under erection at PK OC.</p> <p>iv. 08 nos. of 500 TPH feeder breakers were ordered with built in integrated dust suppression systems. Out of which 04 nos. were commissioned with integrated</p>
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		<p>dust suppression system at Kistaram OC, JVR OC, RG OC3 and SRP CHP.</p> <p><b>4. NTPC:</b> Matter noted. It is to further state that adequate dust suppression measures are available at coal mining projects of NTPC for suppression of dust along haul roads, working faces, crushing points, loading &amp; unloading points etc.</p> <p>Adequate number of water storage locations are maintained at coal mining projects of NTPC in order to store rain water for use in dry spells.</p> <p><b>5. Bicharpur Coal Mine,( UTCL):</b> Water sprinkler installed of 40m-9 &amp; 07m-88.</p> <p><b>6. TSGENCO:</b> Effective dust suppression systems have been installed.</p> <p>ii. Zero discharge system is used in the mine &amp; all generated water in the mine is used for dust suppression.</p> <p>iii. Water sprinklers are deployed round the clock for effective dust suppression.</p>
28	<p><b>Subsidiary and Area Level Bi-partite &amp; Tripartite meeting:</b></p> <ul style="list-style-type: none"> <li>• Shri Manas Mukherjee desired that Subsidiary and Area Level Bi-partite &amp; Tripartite meetings should be held timely.</li> <li>• Addl. Pt. raised by Shri Sanjay Kumar Singh – The Tripartite Security talks in all companies of Coal India are pending for last 2 to 3 years, meetings should be held without delay.</li> </ul>	<p><b>1. CIL:</b> Regular Safety Meetings are being conducted at subsidiary level. Details of meetings are given in <b>Annexure Table-12(Page-80)</b>.</p> <p><b>2. SCCL:</b> Area level Bi-partite &amp; Tripartite meetings are being conducted regularly.</p> <p><b>3. NLCIL:</b> At NLCIL Mines, Bipartite meetings are being conducted annually without fail.</p> <p>*Last Tripartite Meeting on Safety and Health in Neyveli Lignite Mines, comprising of DGMS Officials, Management representatives and Trade Union representatives was held on 25.04.2022.</p> <p><b>4. NTPC:</b> Tri-partite meeting with DGMS is being conducted for coal mines of NTPC. Two numbers of tri-partite meetings have been conducted till date and the third such meet is planned this year.</p> <p><b>5. TSGENCO:</b> Tripartite safety meeting conducted in TSGENCO Head quarters on 04.08.2021</p>

29	<p><b>Slope Monitoring Devices:</b></p> <ul style="list-style-type: none"> <li>● Shri Sanjay Singh desired that the relaxation of existing conditions for GTE should be sought from the concerned Ministry for easing the procurement process for slope stability radar from the reputed OEMs. He requested the MOC to take matters to the concerned Ministry of GOI.</li> <li>● Shri Udayendu Das desired that proper devices should be provided for monitoring of OB dump and OB bench. He said that if the present S&amp;T project for developing indigenous Slope Stability Radar by SAMEER and CMPDI at Dudhichual OCP of NCL is successful, it would solve the problem of the procurement of foreign manufactured Slope Stability Radar in Indian coal mines.</li> </ul>	<p><b>1. CIL:</b></p> <ul style="list-style-type: none"> <li>● GTE permission of WCL has been received and procurement of WCL in the final stage.</li> <li>● An indigenous S&amp;T project for developing Slope Stability Radar by SAMEER and CMPDI at Dudhichua OCP of NCL, for real time and continuous monitoring of Dumps is still under process. On its success, the technology would be adopted by all the projects of NCL.</li> <li>● Slopes of OC mines are regularly monitored by Total Station, 3D Laser Scanner, Borehole Extensometer &amp; SSR.</li> <li>● Subsidiary wise details are given in <b>Table- 13 in Annexure(Page- 81)</b>..</li> </ul> <p><b>2. SCCL:</b></p> <ol style="list-style-type: none"> <li>Dump and pit slope stability is being monitored by installing permanent stations at accessible locations and prisms at inaccessible locations as per the scientific study recommendations and being monitored by total stations in all the mines. LiDAR has been procured for monitoring bench, dump and highwall slope. It is under observation for its efficacy at GK OCP Mine.</li> <li>OB dumps are planned in non coal bearing areas. Soil Penetration Tests (SPT) are carried out at the dump site. OB dump is formed in decks of 30m. At all the OB dumps of the OC Mines of SCCL plantation is being done and the stability of the same is being monitored.</li> <li>Procurement of two nos. of Slope Stability Monitoring Radars is in process.</li> </ol> <p><b>4. NTPC:</b> NTPC is taking up the matter with Ministry for seeking exemption / relaxation in minimum local content for procurement of Terrestrial Laser Scanners, Slope Stability Radars and other modern equipments for its coal mining projects.</p> <p><b>5. WBPDCCL:</b> Dump monitoring is being done by Total Stations.</p>
30	<p><b>Shortage of statutory manpower:</b></p> <ul style="list-style-type: none"> <li>● Shri Sanjay Singh desired that shortages of statutory</li> </ul>	<p><b>1. CIL:</b> CIL has issued internal notification on 30.09.2022 for promotion of 504 nos. from eligible departmental candidates from non-executive cadre to executive cadre in mining discipline for post of Sr.</p>

	<p>manpower should be filled up. He said that accidents are increasing due to shortage of frontline supervisors in which about 2700 posts are vacant and appointment of junior mining officers, in which vacancies of more than 1000 posts are present, should be given one time promotion without delay.</p> <ul style="list-style-type: none"> <li>• Shri Udayendu Das desired that shortage of electrical supervisors could be filled up by providing incentive to those who submit electrical supervisor certificates.</li> <li>• Shri RK Sharma has desired that the Restricted Manger/ Overman/ Surveyor/ Sirdar certificate holder be issued by DGMS. He suggested that the Requirement of statutory manpower and steps taken to fill up the shortage as incorporated page 88 to 93 in ATR should also indicate the position of Restricted Certificate Holders, as this will reduce the requirement of statutory requirements for OC mines. He has also suggested the formation of a separate cadre scheme for Restricted Certificate holders. As since last few years DGMS has started issuing Restricted Manger/ Overman/ Surveyor/ Sirdar certificate</li> </ul>	<p>Officer (Mining) (E-2 grade).</p> <p>i) Endeavors are being taken by subsidiaries of CIL to fulfill the shortage of statutory manpower at the earliest possible.</p> <p>ii) As per the modified promotional channel/cadre scheme of E &amp; M Personnel circulated vide I. I. No. 18 dated 08.04.2022 of "10<sup>th</sup> Wage Agreement for CIL and SCCL", those submitting Electrical Supervisorship Certificates valid for mines are provided benefits in their further promotion/career growth.</p> <p>iii) The issue of acceptance of RESTRICTED MINING CERTIFICATES with regard to Career Growth of Mining Executives was discussed in detail in CMDs Meet. After due deliberation it was decided that keeping in view the future expected requirements for UG Production and overall interests of the Company, RESTRICTED MINING CERTIFICATES will not be acceptable for career growth in Executive Cadre.</p> <p>Statutory manpower of Mining Executives, Mining, Electrical, Mechanical supervisors and Technical Staff are here under.</p> <p><b>2. SCCL:</b> Statutory manpower of Mining Executives, Mining, Electrical, Mechanical supervisors and Technical Staff are here under.</p> <table border="1" data-bbox="767 1487 1453 2018"> <thead> <tr> <th>Category</th> <th>Requirement (2022-23)</th> <th>MOR as on 30.09.2022</th> <th>Variance (+/-)</th> </tr> </thead> <tbody> <tr> <td>Mining Executives (1<sup>st</sup> Class)</td> <td>454</td> <td>449</td> <td>-05</td> </tr> <tr> <td>Mining Executives (2<sup>nd</sup> Class)</td> <td>513</td> <td>358</td> <td>-155</td> </tr> <tr> <td><b>Mining Executive (1<sup>st</sup> &amp; 2<sup>nd</sup></b></td> <td><b>967</b></td> <td><b>807</b></td> <td><b>-160</b></td> </tr> </tbody> </table>	Category	Requirement (2022-23)	MOR as on 30.09.2022	Variance (+/-)	Mining Executives (1 <sup>st</sup> Class)	454	449	-05	Mining Executives (2 <sup>nd</sup> Class)	513	358	-155	<b>Mining Executive (1<sup>st</sup> &amp; 2<sup>nd</sup></b>	<b>967</b>	<b>807</b>	<b>-160</b>
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<b>Class) Total</b>			
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**MINING EXECUTIVES:-**



**MINING SUPERVISORY STAFF:-**

- Approval was accorded for recruitment of 151 Mining Executives through internal and external source. Notification released for internal source

Category	Requirement (2022-23)	MOR as on 30.09.2022	Variance (+/-)
Overman	976	825	-151
Mining Sirdar	385	363	-22
Shotfirer	632	871*	239
<b>MS + SF Total</b>	<b>1017</b>	<b>1234</b>	<b>217</b>
<b>Total Mining Supervisors</b>	<b>1993</b>	<b>2059</b>	<b>66</b>

(37–MGT and 27-UMgrs Certificate holders).

\*871-Shot firer including **794** [SF/MS

+JMET(MS/SF)] :

- 794 {628-Sr MS(OM holder), 146-SF/MS(OM Holder)} mining diploma holders acquired Overman certificate are being utilized as Shot firer / Mining Sirdar to get experience before deploying them as Overman. They are being given authorization to work as Overman against the vacancy. **20** mining diploma holders working as JMET(MS/SF) are yet to acquire Overman competency certificate.
- Out of **363**- Mining Sirdars, **02** are Overman Certificate holders can be authorized to work as Overman against the vacancy.

**SURVEYOR:-**

Category	Requirement (2022-23)	MOR as on 30.09.2022	Variance (+/-)
SURVEYOR	212	213*	01

\*Including 02Surveyor trainee( External).



**E&M SUPERVISORS:-**

Category	Requirement (2022-23)	MOR as on 30.09.2022	Variance (+/-)
Electrical Supervisors	339	315	-24
Mechanical Supervisors	345	302	-43@

**Electrical Supervisors:**

- 315 is excluding 21 AFM (Electrical) trainees, who have to acquire electrical supervisory certificate. All the 21 AFM(Electrical) have completed two years of experience in UG mines to acquire mines installation certificate.

**Mechanical Supervisors:**

- @ Notification is released for recruitment of 56 AFM (Mech) diploma holders through Internal source.

**TECHNICAL STAFF:**

S. No.	Designation	Requirement (2022-23)	MOR as on 30.09.2022	Var (+/-)
1	Electrician	1140	1143	03
2	EP Electrician	310	302	-08
<b>Electrician &amp; EP Electrician Total</b>		<b>1450</b>	<b>1445</b>	<b>-05</b>
3	Fitter	1167	1352	185
4	EP Fitter	662	579	-83
<b>Fitter &amp; EP Fitter Total</b>		<b>1829</b>	<b>1931</b>	<b>102</b>

**Against shortage of 08 EP Electrician:**

22 EP Electrician Trainees through Internal source were selected and are undergoing training.

**Against shortage of 83 EP Fitter:**

27 EP Fitter Trainees through Internal source were

		<p>selected and are undergoing training.</p> <p><b>3. NLCIL:</b> Shortages of statutory manpower will be filled up. Proposal for recruitment of statutory manpower is under process. Statutory certificate allowance is paid every month to Electrical Supervisor certificate holders as an incentive so that there is no shortage of Electrical Supervisor certificate holders. As per NLCIL IE Wing study &amp; suggestions, from time to time, the said man power is distributed and posted.  Time bound promotion is given up to E5 level as per NLCIL HR policy .</p> <p><b>4. NTPC:</b> Requirement of manpower at coal mining sites of NTPC are planned considering the next 3-5 years and accordingly, actions are initiated for recruitment, inter-project transfers etc.  Further, in addition to the statutory manpower being deployed by NTPC, our MDOs have also deployed qualified and competency certified manpower under their roles at coal mining sites, for discharging of operational obligations under the terms of MDO agreement.  As mentioned above, requirement of statutory manpower (<i>including electrical supervisors</i>) are planned considering the next 3-5 years of horizon and accordingly, action is being initiated for recruitment of electrical supervisors. Adequate compensation and pay is ensured for electrical supervisors being recruited by NTPC.</p> <p><b>5. Bicharpur Coal Mine,( UTCL):</b> List of Manpower Asst.-Manager- 11 Overman-16 Mining Sirdar-10</p> <p><b>6. TSGENCO:</b> Statutory personnel are recruited as per the requirement. Continuous recruitment process is going on as per the need .</p> <p><b>5. WBPDCCL:</b> Continuous sincere effort to fill up the shortage of statutory manpower is given by WBPDCCL</p>
31	Other issues	
	<b>Restoration of Coalfield Allowance:</b> Shri Udayendu Das desired that coalfield allowance	On pay structure of executives, issues like disparity of pay between executives and non-executives, restoration of Coalfield Allowance etc. was

	<p>should be restored as per recommendation of Pay &amp; Perk Committee headed by the then CMD, SECL. He requested MOC to take matter with DPE.</p>	<p>deliberated by a duly constituted Pay and Perks Committee. Subsequently the issue of Disparity of Pay between executives and non-executives was forwarded to DPE, which was Not Agreed due to deviation from norms specified in para 2(iv) and para 2(vi) of OM No.W-02/0015/2016-DPE (WC)- GL-X,CRT/17 dated 24th Nov 2017, regarding overlapping of pay scales of non-executives due to different periodicity of Par revisions. Consequent to this there is no such proposal for revision of any pay/allowances beyond the existing guidelines.</p>
	<p><b>ii) Maintenance Audit:</b> Shri Sanjay Singh desired that a special audit should be done on the system of machine maintenance.</p>	<p><b>1. CIL:</b> There is already an existing provision in the scope of work for Internal Audit as circulated by Internal Audit Department, CIL at Clause 5.2.4 (e) which reads as “Maintenance of HEMM as per maintenance schedules is done, if not, report thereof.” However, based on the above Audit Report special audit on the system of machine maintenance can be undertaken, if required.</p> <p>Further, Safety Audit is conducted containing the subject system of machine maintenance. It is included in one of 16 audit formats developed by S&amp;R Division of CIL and Mine Safety Audit is being done every year to assess the safety status of mine.</p> <p><b>2. SCCL:</b></p> <ol style="list-style-type: none"> <li>i. Periodical, planned, scheduled maintenance and technical audits are carried out on all HEMM as per OEM recommendations.</li> <li>ii. Approval was accorded for formation of committee consisting of executives from each area/Corporate to carry out special audit on system of machine maintenance at Area Workshops.</li> <li>iii. All Area GMs and GM(E&amp;M), CWS were informed to arrange for formation of Committees as below and advise to submit report after completion of Special Audit on System Machine Maintenance.</li> <li>iv. For Area Workshops: Area Engineer, Area Safety Officer and In-charge of Area Workshop. The committee formed in one area has to audit adjoining area.</li> <li>v. For Central Workshop and Main workshop: DGM (E&amp;M), CWS and DGM (E&amp;M), Main workshop are the committee members.</li> </ol>

		<p><b>3. NLCIL:</b> Safety Audits are conducted to check system of machine maintenance like Work permit system and Lock out Tag out (LOTO) system, Working at height, Fire safety, Electrical safety etc.</p> <p><b>4. NTPC:</b> Internal and External Audits are being conducted at coal mining projects of NTPC which inter-alia also encapsulates the maintenance of equipment.</p> <p>Further, as a new initiative, NTPC has formed an inter-project committee of experts (<i>termed as MIPMAC</i>) to audit the systems and procedures at our coal mining projects on a quarterly basis and identify gaps, areas for improvements.</p> <p><b>5. TSGENCO:</b> All machinery is being maintained as per OEM guidelines</p>
	<p><b>iii) Shortage of explosive:</b> Shri Sanjay Singh desired that an explosive factory / plant should be established to produce explosives and to avert shortages of explosives at mines for sake of continuity in production</p>	<p><b>1. CIL:</b> As of now there are dedicated bulk explosives manufacturing plants of IOCL in all the subsidiaries of Coal India Limited. Currently IOCL is in process of commissioning the bulk explosives plants at Basundhara area of MCL. The MCL plant is expected to be commissioned by January 2023.</p> <p>In addition to this, IOCL is in the process of enhancing the warehousing storage capacity of the existing plants at BCCL, NCL, SECL and MCL.</p> <p><b>2. SCCL:</b></p> <p>i. As on now, there is no shortage of Explosives.</p> <p>ii. Two captive SME manufacturing plants of total capacity of 50,000 tonnes per Annum are in operation. (Ramagundam with 30,000 tonnes and Manuguru with 20,000 tonnes per Annum).</p> <p>Capacity enhancement proposed 50,000 TPA to <b>1, 00, 000 tonne of SME / year:</b></p> <p>i. Ramagundam from 30,000 TPA to 60,000 TPA and Manuguru plant from 20,000 TPA to 40,000 TPA.</p> <p>ii. Further, SCCL is going to enter into Long Term Contract with IOCL in line with CIL for supply of 50,000 TPA.</p> <p><b>3. NLCIL:</b> Bulk mix plant available and there is no Explosive shortage.</p>

		<p><b>4. NTPC:</b> No shortage of explosives is witnessed across coal mining projects of NTPC. Tie-up with explosive suppliers are available for ensuring uninterrupted blasting operations. The point is however noted.</p>
	<p><b>iv) Shortage of stowing materials:</b> Shri Sanjay Singh desired that adequate stowing materials (sand) should be provided particularly in WCL</p>	<p><b>1. CIL:</b> Work order has been awarded for use of sand produced from OB in Ballarpur Area. Proposal for use of sand from OB materials in Mana Incline of Chandrapur Area is in the final stage. Stowing voids in WCL is in permissible limit. Details are given in <b>Annexure in Table-14(Page-81)</b>.</p> <p><b>2. SCCL:</b> There is no shortage of stowing material in SCCL. Three Processed OB plants are working for preparing stowing sand. Bottom ash from NTPC, Ramagundam and STPP are available nearest to the UG mines.</p> <p>To fulfill the requirement of stowing material in SCCL mines, STPP's/NTPC bottom ash, Processed OB from OB dump yards (3 Nos) are being used in addition to Sand from river sand.</p> <p>Presently in SCCL</p> <p>Sand – 12% POB – 35% Bottom Ash – 53% are being used for stowing purpose</p>
	<p><b>v) Haul Road Management:</b> Shri Sanjay Singh desired that all haul roads should be properly maintained.</p>	<p><b>1. CIL:</b> According to Geometry of the mines , Haul Road is maintained and instruction is issued to subsidiaries to prepare all weather roads so that haul roads can be used during monsoon also. Details are given in <b>Annexure in Table-15(Page- 81)</b>.</p> <p><b>2. SCCL:</b> All the haul roads in Opencast mines of SCCL are properly maintained as per the DGMS guide lines.</p> <p><b>3. NLCIL:</b> In Mines, SME Machines are used for excavating Overburden and lignite and the excavated material is transported through Conveyors. The roads are meant for travelling of persons and materials only. All the roads are properly maintained.</p>

		<p><b>4. NTPC:</b> Haul roads at all coal mining projects of NTPC are properly maintained and a separate SOP is in place for this. Dedicated manpower along with resources / equipments are available for maintenance of haul roads at our coal mining sites.</p>
	<p><b>vi) Man Riding System:</b> Shri Manas Mukherjee desired that man riding system should be provided in more nos. of UG mines</p>	<p><b>1. CIL:</b> 53 nos of man riding systems have been Installed. Man ridings are provided wherever feasible. Subsidiary wise details of the man riding system is given in <b>Annexure Table- 16(Page-82)</b>.</p> <p><b>2. SCCL:</b> There are 41 chair lift systems, 10 chair car and 2 man winding systems working in 25 UG mines (Total : 53 man riding systems)</p>
	<p><b>vii) Training of workers:</b> Shri Manas Mukherjee desired that contractor workers should be properly trained before deployment in UG mines</p>	<p><b>1. CIL:</b> Initial and Refresher training are being provided to contractual employees and details of training provided in FY 21-22 and FY 22-23 is provided in <b>Annexure Table- 17 (Page-82)</b>.</p> <p><b>2. SCCL:</b> Training status is furnished in point No.5(c)</p>
	<p><b>viii) Top soil preservation:</b> Shri Manas Mukherjee desired that top soil of OC mines should be properly preserved.</p>	<p><b>1. CIL:</b> The Top Soil is being preserved separately in all mines, which is utilized for Biological Reclamation /Plantation purposes. Details are given in <b>Annexure in Table-18(Page-82)</b>.</p> <p><b>2. SCCL:</b> SPTs are conducted for external dump zones. Top soil is preserved separately and dumped over the final OB dumps for plantation.</p> <p><b>4. NTPS:</b> Separate top soil dumps are available at all our coal mining sites and proper top soil management &amp; preservation practices are being followed in true spirit.</p>
	<p><b>ix) Stone dusting in mines:</b> Shri Manas Mukherjee desired that stone dust should be provided in UG mines as per approved specification.</p>	<p><b>1. CIL:</b> Stone dust is provided in mines of CIL as per requirements of statute.</p> <p><b>2. SCCL:</b> Proper quantity of stone dust is provided in underground mines as per the approved specifications.</p>

	<b>x) Issues related to NLC:</b>	<p>NLC: There are three ALS &amp; one BLS ambulances are available at Neyveli. Mobile toilets are provided in work site.</p> <p>Wages are paid as per contract worker agreement.</p>
	<p><b>xi) Safety Budget:</b> Shri Sanjay Singh desired that the safety budget of the year should be fully utilized in all the companies, it should be ensured that the responsibility of the concerned officers should be fixed in case of non-utilization. The L1 system should be abolished from the tender of safety goods.</p>	<p><b>1. CIL:</b></p> <ul style="list-style-type: none"> <li>• There is no dearth of funds related to safety jobs.</li> <li>• For improving utilization of safety funds, the DoPs of Area GMs has revised vide Office Order no. CIL: XI (D):04027: 2020:25950 Dt. 19<sup>th</sup> Nov. 2020. Now, GMs of the Areas have the power to sanction Procurement of Goods and undertaking Works and Services upto Rs.20 lakhs in each case for Capital and Revenue nature. Subsidiary-wise expenditure incurred in last 3 years and current year are given in Agenda Item No (i)</li> </ul> <p><b>2. NLCIL:</b> In NLCIL, Safety budget is utilized and go beyond the budget for improvement of safety in mines and the <b>concerned safety officers are given</b> the responsibilities to utilize the budget fully by the year end.</p> <p>At present, all Safety procurement items are purchased from GeM portal. And as per guidelines, L1 system is followed.</p> <p>For abolishing of L1 system to purchase of safety items, all the PSU's including NLCIL have to get exceptions from concerned Ministry.</p> <p><b>2. TSGENCO:</b> There is no limit on expenditure relating to safety. Last year (up to September) an amount of Rs. 29 lakhs utilized and in the current year an amount of Rs.55 Lakhs utilized towards safety.</p>
36	<b>DG, DGMS</b>	
	<ul style="list-style-type: none"> <li>• Stagnating rate of mine accident</li> </ul>	<b>DGMS:</b> last 4 years average mine accident rate is stagnant.
	Implementation of control measures of Safety Management Plan (SMP).	<b>1. CIL :</b> Implementation of control measures of Safety Management Plan (SMP) is enforced.
	<b><u>Zero Accident in Mines:</u></b> Root causes of all mine accidents should be seriously analysed and brainstorming sessions may be organized at different levels to	<b>1. CIL :</b> All mine accidents are seriously analyzed to know its root cause. To reduce the trend of mine accidents, the circumstances and causes leading to mine accidents are being discussed at different levels of Safety meetings to find appropriate

	reduce trend of mine accident and achieve ultimate vision.	measures to prevent recurrence.  <b>2. SCCL:</b> SCCL has imparted specialized training to all Mine Managers, Safety Officers & Asst. Managers in incident/Accident investigation procedure i.e., Root Cause Analysis method.  Root Cause Training provided by SIMTARS Accredited Trainers (SATs) to 45 officers.
	<b>Fly ash dumping in OC mines:</b> - He said that spoil banks and dumps shall be made in such a manner that there is no possibility of dumped material sliding. Stability of the dump should not be compromised in any case. The minimum factor of safety to be considered for design of pit dump slope shall in any case not be less than 1.5 for permanent and long-standing slope and 1.3 for all other cases.	<b>1. CIL :</b> Twenty-two (22) mine voids in CIL have been identified for fly ash dumping.  At present fly ash dumping is going on in nine (09) non-producing/abandoned mines and no fly ash has been dumped in any producing mines.  However, scientific study for dumping/mixing of fly ash with OB at running mines of NCL along with its viability and safety aspect of man and machinery was carried out by IIT BHU. The report showed that the factor of safety decreases during the monsoon season and hence dumping/mixing of fly ash with OB is not safe for running mines of NCL. Concerns of subsidiaries have been taken up with the Ministry. Details are provided in <b>Annexure Table-19(Page-83)</b> .
	<b>Safety Audit in mines :</b> DG, DGMS clarified that provision of audit of Safety Management Plan(SMP) has been given in the Coal Mines Regulation 2017, however provision of third party safety audit has been provided in Occupational Safety, Health and Working Condition Code2020 (OSH & WC Code 2020), which is yet to be implemented	<b>1. CIL :</b> Safety Audit is being conducted in all producing subsidiaries of CIL every year to assess the status of safety in mines and to take appropriate corrective measures based on audit findings and suggestive measures thereof.
<b>37</b>	<b>Secretary (Coal)</b>	
	<b>Wage Revision and HPC wage of contractor workers:</b> Any discrepancy in wages of contractor's employees should be removed.	<b>1. CIL:</b> Contractor's employees Wage are paid as per Office Order issued by CIL in time to time, which is more than minimum wage of the particular state. There is no discrepancy in wages of contractor's employees. Appropriate clauses in NIT are incorporated to ensure appropriate wages are paid.



	<p><b>Zero Accident in mines:</b> Necessary steps should be taken to achieve the same</p>	<p><b>1. CIL : Already given in para no.13(Page- 28).</b></p>
	<p><b>Production from HOE &amp; MDO patches:</b> Safety should be ensured</p>	<p><b>1. CIL:</b> Following necessary precautionary measures are taken during production from HOE &amp; MDO patches:</p> <ul style="list-style-type: none"> <li>i. VTC &amp; IME/PME</li> <li>ii. Safety talk, SOP Distribution,</li> <li>iii. Personal and Family counseling done for improvement of safety,</li> <li>iv. Workshop, Seminars conducted timely for awareness in safety among workmen.</li> <li>v. Sharing animated films on past accidents</li> <li>vi. Safety Audit of all mines</li> <li>vii. Special awareness drive organized</li> <li>viii. Adequate Lighting in Mines provided</li> <li>ix. Safety Management Plan (SMP) have been prepared for each mine</li> </ul> <p>Amendment in NIT conditions to make contractor more responsible towards Mines Act, Rules and Regulations</p>
	<p><b>Best Safety features in HEMM:</b> All advanced safety features of HEMM should be incorporated as per BIS specifications.</p>	<p><b>1. CIL:</b> As per Standard NIT for procurement of equipment, the clause for compliance with latest IS/ISO (BIS) certification has been included. There is also a provision for compliance of the equipment with the DGMS (Tech.) Circular No. 06 of 2020 dated 27.02.2020 in the terms of NIT for safety features.</p>
	<p><b>Safety meetings</b> at various levels of coal companies should be organized in time.</p>	<p><b>1. CIL :</b> Safety meetings at Unit, Area &amp; Company level are organized timely in WCL.</p>

## Annexure Table-1

### Best Safety Practices & State-of-art technology for mine

List of Best Safety Practices adopted	Type of State-of-art technology for mine	Nos. of mine where already such State-of-art technology adopted	Nos. of mines where State-of-art technology proposed to be adopted
<ol style="list-style-type: none"> <li>1. Daily pre-shift safety talk &amp; safety oath in every mine.</li> <li>2. Formulation of Risk based SMP.</li> <li>3. Preparation &amp; distribution of SOP in local language.</li> <li>4. Personal Counselling of departmental and contractual workers.</li> <li>5. Formation of social media groups &amp; sharing of safety clips/ videos/animation films.</li> <li>6. Display of Take-5 at conspicuous places in the mine.</li> <li>7. Display of "Does &amp; Don't".</li> <li>8. Survey of Dumps by Drone.</li> <li>9. Use of Solar Lighting at Remote places.</li> </ol>	<ol style="list-style-type: none"> <li>1. Continuous Miner</li> <li>2. Highwall Mining</li> <li>3. Surface Miners</li> <li>4. High capacity HEMMs</li> <li>5. Rippers etc.</li> <li>6. CAQQMS</li> <li>7. Fog Cannon type mist water sprinkling system</li> </ol>	<p style="text-align: center;">Details is given in Table-8</p>	<p style="text-align: center;">Details is given in Table-8</p>

## Annexure Table- 2

### Details of Medical Infrastructure and Medical Personnel (As on 01.01.2022)

Subsidiary	ECL	BCCL	CCL	WCL	SECL	MCL	NCL	NEC	Total
PME Centres	16	11	4	10	13	2	12	1	69
Radiologists	1	1	0	0	0	0	0	1	3
CWP on roll	0	0	0	0	1	3	0	0	4
CWP Detection in last	Nil	0	0	0	0	1	0	0	1
Dispensary	112	68	63	34	56	13	9	2	357
Hospital	9	11	19	10	10	7	3	0	69
Central Hospital	2	1	4	3	3	2	1	1	17
Area Hospital	7	2	8	7	0	4	11	0	39
Regional Hospital	Nil	8	7	0	7	1	0	0	23
Beds	644	762	892	475	853	309	207	100	4242
Doctors	167	138	217	131	177	101	91	10	1032
Specialist	29	43	95	40	37	16	27	8	295
GDMO	131	95	125	88	127	76	49	2	693
GDMO with	7	4	**	3	12	9	15	0	50
Total Ambulances	117	62	78	92	113	51	42	6	561
Patient Carrying	2	2	15	4	43	27	0	2	95
Patient Carrying	108	0		71		9	0	4	192
BLS Owned	Nil	2	0	0	0	0	36	0	38
BLS Hired	Nil	56	56	11	65	11	0	0	199
ALS Owned	Nil	2	0	0		0	5	0	7
ALS Hired	7	0	7	6	5	4	0	0	29
Ayur vedic Dispensary	1	0	Nil	0	0	1	0	0	2
Mobile Medical Van	Hired	0	Nil	0	0	2	1	0	3
Staff Nurse	162	167	164	175	222	94	134	7	1125
Pharmacist	80	54	76	75	88	57	40	2	472
Lab Technician	15	29	37	34	54	29	36	1	235
X-ray Technician	11	20	15	13	36	11	17	0	123
ECG Technician	4	12	22	18	17	12	16	0	101
Dresser/ OT Tech	168	119	71	75	51	20	39	3	546
Optometrician	2	5	1	1	2	4	3	0	18
Audiometrician	0	11	2	1	0	1	4	0	19
Physiotherapist	1	5	4	1	2	4	2	0	19

Subsidiary	ECL	BCCL	CCL	WCL	SECL	MCL	NCL	NEC	Total
Dental Tech	0	3	1	0	0	2	3	0	9
Dietician	1	3	0	0	0	2	2	0	8
300 mA X-ray machine	14	6	4	5	15	8	4	1	57
500 mA X-ray machine	4	6	17	10	4	2	7	0	50
800 ma Xray Machines	Nil	0	1	0		0	0	0	1
Portable x-ray	4	6	6	4		2	2	0	24
Colour Doppler	1	1	1	0	3	2	4	1	13
USG	2	2	5	3	9	2	1	1	25
CT Scan	1	1	Nil	0	1	1	0	0	4
Spirometers	12	7	15	11	16	5	13	1	80
Audiometers	16	11	15	10	20	3	14	1	90
12 lead ECG machine	21	1	17	23	43	9	19	1	134
Haemodialysis	1	4	Yes	0	5	0	7	0	17
Temp. Pacing	Nil	0	Yes	0	0	0	1	0	1
Laparoscope	3	7	2	0	1	2	2	0	17
GI Endoscope	1	0	1	0	2	2	1	1	8
Colonoscope	1	0	1	0	0	1	1	0	4
IME - 2018	1911	648	1173	2647	1960	814	2619	222	11994
IME - 2019	1237	1228	303	4619	4611	595	4731	81	17405
IME - 2020	1394	222	962	2935	3479	836	1125	4	10957
IME -2021	2064	819	603	3323	1209	997	6068	0	15083
IME - up to August	1269	551	283	1370		665	2321	20	6479
PME Done in 2018	10472	13,316	5120	13683	10967	5705	3804	368	63435
PME Done in 2019	12384	13,364	7283	11642	9708	5000	3252	228	62861
PME Done in 2020	10680	4,519	6245	8682	16321	3075	1595	203	51320
PME Done in 2021	10210	10,466	6201	8773	15769	3937	3041	197	58594
PME Done upto	8307	7,565	4541	6598	9549	3439	2843	114	42956

## Annexure Table – 3

### Training and Skill development

Company	Nos. of VTC	Nos. of VTC identified	Present status VTC improvement
ECL	10	6	02 nos of VTCs (Sodepur & Satgram) have been partially upgraded. Modernization is still continuing.
BCCL	11	02	Tender to be floated shortly.
CCL	10	2	For upgradation, two no. of GVTCs namely Rajrappa and Kathara area training centres, final version of RFP Model Document is under preparation at HRD CCL.
NCL	10 VTCs + 1 CETI	2 (Dudhichua & Nigahi)	All VTCs are of B+ Category
WCL	11	02	02 VTCs (Chandrapur & Silewara, Nagpur) partially upgraded. Modernization is still continuing.
SECL	19	02	02 Nos. of VTCs of SECL have been identified for up-gradation and modernization. Indent for procurement of items required for the same has been approved and is under tendering process.
MCL	5	2	<p>Out of 5 GVTC's at MCL, the following two GVTC's are being identified for up gradation , modernization and designing &amp; implementation of suitable programmes</p> <p>a) GVTC, Lakhanpur Area b) GVTC Jagannath Area</p> <p>Comments of Draft RFP already submitted to ED(S&amp;R), CIL on 14<sup>th</sup> July. Final version of RFP Model Document received. As per ED(S&amp;R), CIL, Subsidiaries will make required fill-up, addition, deletion in the clause, phrases etc, which are highlighted in yellow and green colour as per the particular requirements, in the final version of model RFP documents, which is under process.</p> <p>RFP will be floated after suitable modifications.</p>

## Annexure Table-4

### Revival of UG mines

#### Proposed deployment of equipment/technology (Based on Draft UG VISION plan document of CIL -2022)

##### A. CONTINUOUS MINER:

**ECL:** Present deployment-08 nos. (Cap.-3.58 Mty)

- i. Timeline of Commissioning of 21 nos. Continuous Miners as per Approved PR:
- ii.

SN	Project	Type	Nos	Capacity (MT)	22-23	23-24	24-25	25-26	26-27
1	Jhanjra	LHCM	2	0.72	2	0			
		SHCM	2	1.02	0	2			
2	Tilaboni	LHCM	2	0.72	0	0	1	1	
		SHCM	2	1.02	0	0	1	1	
3	S.S pur	LHCM	2	0.72	0	0	1	1	
4	Parasea Belbaid	LHCM	1	0.36	0	0		1	
		SHCM	1	0.51	0	0	1		
		EHCM	2	1.20	0	0	1	1	
5	Siduli	LHCM	1	0.36	0	0		1	
		SHCM	1	0.51	0				1
		EHCM	1	0.60	0				1
6	Shampur B	LHCM	2	0.54	0		1	1	
7	Bansra UG	LHCM	2	0.54	0		1	1	
Total LHCM			12	3.96	2	-	4	6	
Total SHCM			6	3.06	-	2	2	1	1
Total EHCM			3	1.80	-	-	-	1	1
<b>Total</b>			<b>21</b>	<b>8.82</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>8</b>	<b>2</b>

- Projects under conceptualization (yet to be finalized)

SN	Project	Type	Nos	Capacity (MT)	23-24	24-25	25-26	26-27	27-28
1	Bhanora-West	LHCM	2	0.72		1		1	
2	Satgram Incline & Chapui-Khas	LHCM	2	0.54			1		1
3	SSI-Kalipahari-Ningha	LHCM	1	0.36				1	
4	Dhemomain Incline & Pit	SHCM	2	0.76			1	1	
5	Patmohana-Bejdih	LHCM	2	0.54			1		1
6	Nimcha	LHCM	1	0.36			1		
		SHCM	1	0.51				1	
7	Kalidaspur	SHCM	1	0.51				1	
8	Bahula_CL Jambad-Lower Kenda	SHCM	2	0.76			1		1
9	Kumardih-A	SHCM	1	0.51				1	
10	Nabakajora-	LHCM	1	0.36			1		

SN	Project	Type	Nos	Capacity (MT)	23-24	24-25	25-26	26-27	27-28
	Madhabpur	EHCM	1	0.60				1	
11	Pandaveswar-Dalurband	LHCM	1	0.36				1	
12	Khaskajora	EHCM	1	0.60				1	
13	Amritnagar	SHCM	1	0.51				1	
14	Parascole West-Jambad	SHCM	2	1.02			1	1	
	Total LHCM		10	3.24		1	4	3	2
	Total SHCM		10	4.58			3	6	1
	Total EHCM		2	1.20				2	
	Total CM		22	9.02		1	7	11	3

**BCCL:** Present deployment: Nil

Proposed deployment:

- i. Phularitand UG/Pure Benedih Incline (0.81 MTY Capacity): 2 nos. by 2023-24
- ii. Block-II UG PR (0.5 MTY): PR under preparation at CMPDI.

**CCL:** Present deployment:

Churi Benti UG: 1, Cap.: 0.5 Mty

Proposed deployment:

Name of the mine /project	No. of likely deployment	Capacity (Mty)	Likely year of deployment
Piparwar Phase I UG (MDO)	2	0.87	2025-26
Parej East UG	1	0.51	2025-26
	<b>3</b>	<b>1.38</b>	

**NCL:** Present deployment: Nil

Proposed deployment:

SN	Project	Type	25-26	26-27	27-28	Total
1	Inguri (5.6 Mty)	CM	1	1	1	3
2	Borka (2.16 Mty)	CM		1	1	2
<b>TOTAL</b>			<b>1</b>	<b>2</b>	<b>2</b>	<b>5</b>

**WCL:** Present deployment:

Tawa II - 1, Cap.: 0.36 Mty

Proposed deployment:

Timeline for Commissioning of Continuous Miners where PR are Approved

SN	Project	Type	Nos	22-23	23-24	24-25	25-26	26-27	27-28
1	Tawa I (0.36 Mty)	LCCM	1	1					
2	Chattarpur I (0.51 Mty)	SHCM	1	1					
3	Saoner I (1.2Mty)	EHCM	2		1	1			
4	Jamunia (0.9 Mty)	LHCM	2		1	1			
5	Dhankasa (1.0 Mty)	SHCM	2		1	1			
6	Gandhigram (1.16 Mty)	SHCM LCCM	3				1	2	
7	Tawa III 0.84 Mty)	CM	2				1	1	
<b>TOTAL</b>			<b>13</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	

**SECL: Present deployment:**

Name of the mine /project	No. of deployment	Capacity (Mty)
Churcha RO UG	2	1.00
Beherabandh UG	1	0.46
Vijay West UG	1	0.42
Haldibari UG	1	0.42
Khairaha UG	1	0.47
Bangwar UG	1	0.45
Vindhya UG	1	0.40
Raniatari + Vijay West (LCHM)	1	0.31
KurjaSheetal Dhara (LHCM)	2	0.80
<b>Total</b>	<b>11</b>	<b>4.72</b>

**Proposed deployment: Timeline for Commissioning of CMs where PR are Approved**

SN	Project	Type	Nos.	22-23
1	Gayatri (0.87 Mty)	SHCM+LCCM	2	2
2	Ketki (0.87 Mty)	SHCM+LCCM	2	2
3	Churcha ( 0.72 Mty)	SHCM	2	2
4	Khairaha ( 0.36 Mty)	LCCM	1	1
5	Rajgamar (0.36 Mty)	LCCM	1	1
<b>TOTAL</b>			<b>8</b>	<b>8</b>

- Timelines of Commissioning of MPT for PR under approval / Schemes under conceptualization

SN	Project	Type	Total	23-24	24-25	25-26
1	Rehar (1.23 Mty)	LCCM+SHCM	3	2+1		
2	Katkona (1.74 Mty)	SHCM+LCCM	4	2+2		
3	Shiwani (0.72 Mty)	LCCM	2	2		
4	Jhilmili (0.51 Mty)	SHCM	1	1		
5	Bagdewa (0.72 Mty)	LCCM	2	2		
6	Bartarai (0.72 Mty)	LCCM	2	2		
7	Damini (0.48 Mty)	LHCM	1	1		
8	Karkati (0.87 Mty)	LCCM+SHCM	2		1+1	
9	Bodri ( 1.52Mty)	LHCM+LCCM	4		1+3	
10	Badauli (1.44 Mty)	LCCM	4		4	
11	Malachua ( 1.44 Mty)	LCCM	4		4	
12	Amritdhara (1.08 Mty)	LCCM	3		3	
<b>TOTAL</b>			<b>32</b>	<b>15</b>	<b>17</b>	

**B. LONGWALL (PSLW):****ECL:**

Status	Name of mine	No. of deployment	Cap. (Mty)
Present deployment	Jhanjra UG	1	1.7
Proposed		Nil	



**BCCL:**

Status	Name of mine	No. of deployment	Cap. (Mty)	Likely start of prod.
Present deployment	Moonidih XVI seam	1	0.7	operation
Proposed	Moonidih XV Seam	1	2.5	2024-25
	Muraidih UG	1	2.0	2025-26

**C. Highwall Mining:**

ECL:(Figs. in Mt)

S. No	Area/ Project	PR/ SCHEME (Mty)	EC (Mty)	Additional PR/ Scheme (Mty)	22-23	23-24	24-25	25-26	26-27	27-28
1.	Nimcha HW	0.50	0.50		0.08	0.20	0.50	0.50	0.44	
2.	Narayankuri HW	0.50	0.50		0.30	0.41	0.50	0.40		
3.	Rajpura HW			0.50			0.20	0.35		
4.	Khottadih HW			0.50				0.20	0.50	0.30
	<b>Total</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>0.38</b>	<b>0.61</b>	<b>1.20</b>	<b>1.55</b>	<b>0.94</b>	<b>0.30</b>

\* Scheme to be formulated for Highwall at Khottadih

BCCL:(Figs. in Mt)

Area/ Project	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Block-II	0	0.15	0.3	0.5	0.5	0.5
Rajapur	0	0	0	0.2	0.3	0.4
Benidih	0	0	0	0	0	0.2
C. V Area	0	0.05	0.15	0.3	0.4	0.5
<b>Total</b>	<b>0</b>	<b>0.2</b>	<b>0.45</b>	<b>1</b>	<b>1.2</b>	<b>1.6</b>

CCL:(Figs. in Mt)

S. No.	Name of the Project	2024-25	2025-26	2026-27	2027-28
1.	AADOCM	0.5	0.5	0.37	-
2.	Dakra OC	0.6	0.6	0.6	0.6
3.	Balkudra outsourcing Patch	-	0.5	0.5	0.5
	<b>Total</b>	<b>1.1</b>	<b>1.6</b>	<b>1.47</b>	<b>1.11</b>

WCL: (Figs. in Mt)

S. No	Mines	23-24	24-25	25-26	26-27	27-28
1	Penganga	0.15	0.5	0.5	0.5	0.4
2	Ghonsa	0.15	0.5	0.2		
3	Pimpalgaon			0.2	0.5	0.5
4	Gondegaon					0.5
5	Padmapur		0.5	0.5	0.5	0.51

6	Dinesh(mkd-iii)	Beyond 2027-28				
		<b>0.3</b>	<b>1.5</b>	<b>1.4</b>	<b>1.5</b>	<b>1.91</b>
	<b>Total</b>	<b>3.84</b>	<b>5.14</b>	<b>6.55</b>	<b>8.688</b>	<b>10.968</b>

**SECL:**(Figs. in Mt)

Area / Project	22-23	23-24	24-25	25-26	26-27	27-28
Sharda	0.85	0.85	0.85	0.85	0.85	0.85
Amlai/Dhanpuri					0.35	0.5
<b>Total:</b>	<b>0.85</b>	<b>0.85</b>	<b>0.85</b>	<b>0.85</b>	<b>1.2</b>	<b>1.35</b>

**D. PASTE FILL TECHNOLOGY/ SIMILAR TECHNOLOGY:**

**ECL:**

- i. Shampur B: Paste Fill Technology with two set LHCM with.
- ii. Bansra UG: High speed Filling Technology with two set LHCM

**BCCL:**

- i. P B Project
- ii. Maheshpur U/G.

**SECL:** Proposed PFT:

- i. Singhali UG
- ii. Dhelwadih UG

## Annexure Table-5

### Land acquisitions problem

Nos. of producing OC mines	Total land requirement based on production target for FY 2022-23 & 2023-24	Land already acquired against requirement	Lands proposed to be acquired in FY 2022-23 & 2023-24	Remarks, if any
<p><b>OC - 146 Mixed – 21</b> (Report as on 01.10.2021 obtained from production department)</p>	<p><b>2022-23 - 3273.40 Ha</b> <b>2023-24 - 3193.35 Ha</b></p>	<p>As per 1 BT program Total 10935 Ha of Land is to be possessed during 2020-21 to 2023-24 commensurate with production plan. Already possessed during FY 20-21 and FY 21-22 is 6406.48 Ha.</p>	<p>During 2022-24 subsidiaries of CIL has to possess of 5225.03 Ha of land</p>	<ul style="list-style-type: none"> <li>● In most of the cases, subsidiaries are acquiring land under CBA ( A&amp;D) Act 1957.</li> <li>● Apropos the RFCTLARR (Removal of difficulties) order 2015 dated 28.08.2015, the compensation, R &amp; R benefits and infrastructure facilities for the land acquired under CBA (A&amp;D) Act, 1957 are to be provided as per schedule I, II &amp; III of RFCTLARR Act 2013. MCL is following Odisha R&amp;R policy.</li> <li>● It is fact that subsidiaries of CIL are facing difficulties in taking physical possession of tenancy land, govt land as well as forest land like in Rajmahal OCP, Chitra OCP of ECL, Magadh OCP of CCL, Kaniha OCP, Hingula OCP, Ananta OCP, Samaleswary OCP etc of MCL, Gevra OCP, Dipka OCP &amp; Kusmunda OCP of SECL.</li> <li>● During review meeting (VC) on 26.12.2019 under the chairmanship of Secretary, MoC, it was decided that in the best interest of organization, looking to ground conditions and the profitability of the project, the respective boards of the coal companies will have the freedom to extend better terms to the land holders as well as non-title holders who are accordingly certified by the state government authorities.</li> </ul>

## Annexure Table -6

### Action taken report (ATR) on recommendations of Rajmahal Disaster Court of Inquiry

PN	Recommendations	Action Taken
	<b>Safety steps/Remedial measures</b>	
10.1.1 (i)	<p><b>Preparation and approval of the Project Report:</b> While preparing a Project Report of a large opencast mine, planners should clearly specify in detail all operations like manner of extraction, place of dumping, layout of dump, layout of roadways for transportations etc. required to be carried out in the mine. The estimated cost of the project should also include funds for safety and acquisition of land. The project should be approved with the condition that operations in the mine is commenced only after complete acquisition of land required for operations. The report should be considered for approval after its vetting by the Internal Safety Organization.</p>	<ul style="list-style-type: none"> <li>● CMPDI is entrusted with preparation of Project Reports.</li> <li>● While preparing the Project Reports, Mine Planners provide details of operations like manner of extraction, place of dumping, layout of dumps, layout of roadways for transportations and other infrastructure of OC mine.</li> <li>● Funds for safety and acquisition of land are being included in the said Project Reports.</li> <li>● Annual Production Plan is vetted by the ISO.</li> </ul>
(ii)	<p><b>Planning &amp; Execution:</b> There should be a clear segregation of authorities involved in planning and those responsible for execution of the Plan. It is recommended that a Planning and Monitoring Committee may be set up comprising all relevant stakeholders who would be responsible for preparation and execution of the Project Report after taking into consideration all parameters including safety parameters involved in operation of a mine. This Committee may also be entrusted with the responsibility of regular monitoring of the project at its execution stage to ensure that there are no deviations from the original approved Plan. This is necessary as an executive, generally concerned with production, is likely to take decisions deviating from the approved Plan in order to achieve production targets. Such decisions may prove costly in terms of safety parameters of the mine. If any deviation is required due to changed circumstances, it should be done in consultation and approval of this Planning and Monitoring Committee.</p>	<p>There is clear segregation of authorities involved in planning and those responsible for execution of the plan. At HQ, P&amp;P in consultation with Civil, E&amp;M, Excavation, L&amp;R, M&amp;S Dept form a Planning Committee for finalization of Project Report. This includes suggestions from the Area Planning Officer of the Project.</p> <p>After approval of the Project Report, the progress of the activities of the PR related to construction of infrastructure and safety are monitored in various interfaces like e-CPMP Portal, PMG Portal, MoSPI Portal, ERP (SAP) etc.</p> <p>Updation of the Master Control Network (MCN) for FMC Projects, Mining Projects, Contracts, MDO Projects are regularly made for viewing &amp; monitoring through dashboard.</p> <p>Whenever there is any change in the plan envisaged in the approved Project Report, the revised proposal/Plan from the Project is scrutinized and consultation from the CMPDI is obtained. An operational Plan is prepared by CMPDI and after approval of the Competent Authority (as per the DoP) the revised Plan is executed with or without financial implication as the case may be and as per the approval.</p>

PN	Recommendations	Action Taken
(iii)	<p><b>Status of the Manager:</b> As per requirements of Section 17 of the Mines Act, 1952, a Manager is responsible for the overall management, control, supervision and direction of the mine. However, in practice, it is seen that the Manager is a very junior officer and therefore has virtually very little control over the management of the mine. Most of the operational decisions are taken at higher levels with very little input from the Manager. This creates lot of confusion and is against the spirit of Section 17 of the Mines Act, 1952. Hence, it is recommended that a sufficiently senior officer is appointed as Manager of the mine to fulfill the statutory requirements of the Act.</p>	<p>Senior officers are always given priority for appointment as a Mine Manager so that he can effectively control overall management, supervision and direction of the mine.</p>
(iv)	<p><b>Role of the Contractor:</b> Full and exclusive responsibility for safety in the mine should rest with the Manager and mine officials under him as required by the Mines Act, 1952 and the Rules and Regulations made thereunder. Role of a Contractor should be limited only to carrying out certain operations in the mine under total control and direction of the Manager.</p>	<p>All the statutory supervisions are performed by statutory personnel/supervisors authorized by the Manager of the mine. The contractors are engaged only for carrying jobs mentioned as per "Work Order". Contractors are executed their assigned jobs wherein provisions for safety are maintained as per statute.</p>
(v)	<p><b>External Safety Audit:</b> In addition to Internal Safety Audit, a mine should also be audited by an external agency to detect any unsafe condition/practice prevalent in the mine.</p>	<p>Mine Safety Audit has been conducted by qualified executives having First Class Managers Competency Certificate with 10 years of experience working in mines under different mine authority i.e. external to mine management. Additionally CIL is in process of adopting International Standards of Occupational Health &amp; Safety Management System for all mines (ISO: 45001-2018); and auditing of standards through accredited agency following standards of Auditing Management System (ISO: 19001-2018). Safety Audit is also being conducted through qualified and experienced SIMTARS, Australia accredited executives external to the respective subsidiary.</p>
(vi)	<p><b>Monitoring of slope stability in opencast mines:</b></p>	<p>Slope Stability in opencast mines are maintained &amp; monitored as per scientific</p>

PN	Recommendations	Action Taken
	<p>Strata monitoring including dump monitoring for deeper opencast mines and dumps of more than 60m height should be made mandatory to provide real time information about the loads and strains on benches and dumps.</p>	<p>studies conducted by scientific agencies in compliance of Reg no. 106 of CMR-2017.</p> <p>Geotechnical cell has been established at Hq. level and slope monitoring cell at project/area level for analyzing, monitoring of dumps as per the methods based on scientific study.</p> <p>Details of various slope monitoring devices are given in Table-13.</p> <p>Further, an indigenous S&amp;T project for developing Slope Stability Radar by SAMEER and CMPDI at Dudhichua OCP of NCL, for real time and continuous monitoring of Dumps is under process.</p>
(vii)	<p><b>Digital Occupational Safety and Health (OSH) Observatory:</b>  There have been many disasters due to opencast bench and dump failures in coal mines in India in recent past. In most of the cases the causes of failures were one and the same, i.e. none adherence to the bench parameters and presence of geological disturbances including hydrological effects.</p> <p>It is recommended that a Digital OSH Observatory should be set up at national level where in digital records of all the accidents, disasters, health issues, status of mines and their risk levels in digital forms is maintained for reference and is in public domain.</p>	<p>Dump monitoring is being done by SSR &amp; Borehole Extensometer. In 04 mines of WCL the bench parameters are assessed by use of Drones also.</p>
(viii)	<p><b>Mine Digitalization and Emergency Action Plan:</b>  After any mine disaster, it is generally difficult to locate the entrapped miners leading to delay in rescue and recovery operations. In order to avoid such a situation and to ensure emergent rescue operations of affected persons, a provision under the Coal Mines Regulations, 2017 has already been made as given below:  Regulation 37 (5)(c) "The Owner shall ensure that a system is established so that the names of all persons who are employed belowground can be accurately known at any time, as well as their probable location". It is recommended that the above-mentioned provision 37 (5) (c) of the Coal Mines Regulations, 2017 be amended so that it is applicable to opencast mines also.</p>	<p>Biometric attendance system has already been introduced in mines.</p>
(ix)	<p><b>Delegation of financial powers to the 'Nominated Owner':</b>  As per Section 18 (1) of the Mines Act, 1952, the 'Owner' and 'Agent' of every mine are responsible for making financial and other provisions and for</p>	<p>Already complied.</p>

PN	Recommendations	Action Taken
	<p>taking such steps as may be necessary for compliance with the provisions of the Act and the regulations, rules, byelaws and orders made thereunder. The company, under Section 76 of the Act, nominates one of its Directors to assume the responsibility of the 'Owner' of the mine for the purposes of the Act. Therefore, it is recommended that such '<b>Nominated Owner</b>' be <b>delegated full financial powers</b> for matters related to safety so that he is able to fulfil his obligations required by the Act.</p>	
<b>10.2.1</b>	<b>COMPENSATION: Recommendations regarding labour welfare:</b>	
(v)	<p>It is on record of the Court (Report of HPC) that a sum of Rs. 5 lakhs by M/s ECL and Rs. 5 lakhs by the Contractor under whom workers were directly employed was paid to legal heirs of all deceased workers, immediately after the accident. The Court appreciates their stand but is of the view that the amount paid was not adequate and hence recommends for payment of total ex-gratia compensation amounting to Rs. 15 lakhs to legal heirs of each of 23 workers who died in the accident on 29.12.2016. Since, a sum of Rs. 10 lakhs (Rs. 5 lakhs by M/s ECL and Rs. 5 lakhs by the Contractor) has already been paid, the Court recommends for payment of additional amount of Rs. 5 lakhs as ex-gratia compensation by M/s ECL to legal heirs of deceased workers.</p>	<p>It is under process.</p>
(vi)	<p>In addition to the above stated ex-gratia compensation (Rs. 10 lakhs by M/s ECL and Rs. 5 lakhs by the Contractor), Contractor is liable to pay compensation under the Workmen's Compensation Act, 1923 and other legal dues like Gratuity, Provident Fund, Bonus, etc., which if already not paid, should be paid to the legal heirs of all the deceased workers within three months from the notification of Gazette</p>	<p>Under Workmen Compensation total Rs 1,85,09,160/- have been paid. Jharkhand Govt paid Rs 26, 00, 000/- As EPF total Rs 3, 93, 766/- have been paid till now.</p>

**Annexure Table- 7****Fly ash dumping in mine of CIL**

<b>S.No</b>	<b>Sub</b>	<b>Name of Mine</b>	<b>OC/UG</b>	<b>Nearby TPP's</b>
1	MCL	South Balanda Q-2 & 3	OC	NTPC
2		Jaganath OC, Quarry IV	OC	Bhusan steel
3		Jaganath OC, Quarry IV & VII	OC	NTPC
4		South Balanda Q-I	OC	NBVL
5		Jaganath OC, Quarry VIII	OC	NTPC
6		Bharatpur	OC	NALCO
7	SECL	Manikpur, western quarry	OC	NTPC & CSPGCL
8		Surakachhar 3&4 pit	UG	NTPC
9	NCL	Gorbi	OC	NTPC



## Annexure Table – 8

### Subsidiary-wise Blast free mining technology

Company	Technology	Already in use (including Cont. Patch)		Proposed to be used (including Cont. Patch)	
		No. of mines	No. of m/c	No. of mines	No. of m/c
ECL	Surface Miner for coal	2	6	1	2
	Eccentric / Vertical Ripper for OB removal	0	0	1	1
	Continuous Miner (CM)	4	8	6	19
	PSLW	1	1	0	0
	Highwall	0	0	04	05
BCCL	Surface Mines	0	0	0	0
	Eccentric / Vertical Ripper For OB removal	0	0	0	0
	CM	0	0	2	2
	PSLW	1	1	3	3
	High wall	0	0	4	4
CCL	Surface Mines	6	15	0	0
	Eccentric / Vertical Ripper For OB removal	0	0	0	0
	CM	1	1	1	2
	PSLW	0	0	0	0
	High wall	0	0	4	4
NCL	Surface Mines	5	8	4	6
	Eccentric / Vertical Ripper For OB removal	0	0	0	0
	CM	0	0	0	0
	PSLW	0	0	0	0
	High wall	0	0	0	0
WCL	Surface Mines	2	2	2	2
	Eccentric / Vertical Ripper For OB removal	0	0	0	0
	CM	1	1	8	14
	PSLW	0	0	0	0
	High wall	0	0	0	0
SECL	Surface Mines	10	42	2	2
	Eccentric / Vertical Ripper For OB removal	1	1	1	1
	CM	9	10	16	39
	PSLW	0	0	0	0
	High wall	1	1	1	1
MCL	Surface Mines	15	72	15	72
	Eccentric / Vertical Ripper For OB removal	2	2	2	2
	CM	0	0	2	2
Total	Surface Mines	40	145	24	84
	Eccentric / Vertical Ripper For OB removal	3	3	4	4
	CM	15	20	35	78
	PSLW	2	2	3	3
	High wall	1	1	13	14

## Annexure Table-9

### R&D Projects on Mine Safety On-going:

Sl No	Title of on-going R&D projects w.r.t. Mine Safety	Starting of R&D – Date/Year	Probable timeline for completion of R&D project	Remarks (Reasons for extraordinary delay)
1	Indigenous development of early warning radar system for predicting failures/slope instabilities in open cast mines	01.02.2018	30.11.2022	Due to impact of COVID-19
2	Design and Stability of Pillars/Arrays of Pillars for Different Mining Methods in Coal Mine Workings	16.03.2018	30.11.2022	Due to impact of COVID-19 & Delay in procurement of equipment
3	Development and Field Trial of 500 T Capacity SAGES-III for Use with Continuous Miners (Phase-III)	01.05.2019	31.05.2023	Delay in manufacturing of SAGES and getting DGMS permission for field trial
4	Indigenous Development of IoT Enabled Technology for Monitoring, Analysis and Interpretation of Longwall Shield Pressures for Improving Safety and Productivity	01.12.2020	30.11.2023	Progressing as per schedule
5	Study of hazards due to mining induced sub-surface cavities and waterlogged areas in inaccessible old workings in underground coal mines using geophysical technique.	15.03.2021	14.03.2023	Progressing behind schedule due to delay in procurement of equipment
6	Development of guideline for prevention & mitigation of explosion hazard by risk assessment and determination of explosibility of Indian coal incorporating risk based mine emergency evacuation and re-entry protocol.	15.04.2016	14.04.2023	Delay due to procurement of equipment from SIMTARS, Australia
7	Development of Guidelines for Increasing the Height of Overburden Dumps at Opencast Coal Mines in India.	01.06.2017	31.07.2022	Delay in procurement of equipment due to COVID-19
8	Development of Virtual Reality Mine Simulator (VRMS) for improving safety and productivity in coal mines	01.09.2017	31.05.2022	Delay due to procurement of equipment from SIMTARS, Australia
9	Development and adoption of Real-Time Prognosis System (RTPS) for cost effective safe operation of mobile machinery: show-cased demonstration of dumper fleet.	16.12.2019	30.09.2022	Progressing as per schedule
10	Forensic investigation related to Geo-technical aspects in order to stabilize the foundation soil of expansive nature and implement suitable ground improvement technology to sustain and enhance the optimum overburden dump height	10.02.2021	09.02.2023	Progressing as per schedule
11	Development of an indigenous optical fiber based instrument for measuring in-the-hole Velocity of Detonation [VOD]	10.02.2021	09.02.2023	Progressing as per schedule

	and analyze the performance of explosive in field condition			
12	Effect of Blasting on Opencast Mine Dump and Development of Relationship between Blast Induced Vibration and Dump Design.	10.02.2021	09.02.2023	Progressing as per schedule
13	Design and Development of Drop Test Facility for Pit Bottom Buffer, used in Underground Coal Mines	10.02.2021	09.02.2023	Progressing as per schedule
14	To develop an Artificial Intelligence (AI) based machine learning solution to enable prediction of occurrence of fire in Open cast mines extracting locked coal pillars with safety.	10.02.2021	09.02.2023	Progressing as per schedule
15	Design of Protective Barrier Pillar against Large Water Head in Underground Coal Mines	01.05.2021	30.04.2023	Progressing as per schedule
16	Design and development of knee and spinal smart protective devices for improving the health and safety of miners.	15.11.2021	14.11.2023	Progressing as per schedule
17	Real-time energy efficient cyber-physical intelligent system for mine slope health monitoring	01.02.2022	31.01.2024	Progressing as per schedule
18	Underground Trapped Miners Location System	15 <sup>th</sup> Jan 2010	30 <sup>th</sup> June 2021	Delayed due to receiving field trial permission from DGMS. Project recommended for foreclosure by the Apex committee for R&D Board of CIL.

## Annexure Table-9A:

### R&D Projects on mine safety – already completed

Sl No	Title of completed R&D projects on Mine Safety	Starting Year	Year of completion	Whether outcomes beings used in mines
1	On-line coal dust suppression system for opencast mines	2016	2021	Under operation at RCM siding of Ashok OCP, CCL
2	Investigation pertaining to geotechnical & hydrogeological aspects to stabilize the non-cohesive granular soil/sand in the opencast mines adjacent to the major perennial river	2016	2020	10 m high green facia reinforced earth wall constructed at Bhanegaon OCP, WCL adjacent to Pench & Kanhan river
3	Techno-economic evaluation and performance behaviour of Self Advancing (mobile) Goaf Edge Supports (SAGES) (Phase - II)	2015	2019	Field trial completed in the RK-7 mine of SCCL. Based on the success of the project, further study was undertaken to develop 500 Te SAGES for the CM panel under another ongoing S&T project. Product developed. 500 Te SAGES will be under field trial very soon at Churcha UG mine, SECL.
4	Assessment of horizontal stress fields in deeper horizons and development of roof hazards maps of coal resources in SCCL	2015	2019	Project experimented at Mandamari Shaft block and RKNT dip side block, SCCL. The developed technique was replicated for Geo-technical mapping in SK mine, KK-1 Incline and RKNT mines of SCCL to derive stress orientation. It is proposed for implementation in GDK-11 Incline and PVK-5 Incline of SCCL.
5	Development of guidelines to predict distance between toe of the Shovel-Dumper dump and that of Dragline dump with consideration of safety and economical design of both Shovel-Dumper dump and Dragline dump.	2013	2016	Recommendations are being followed in NCL.
6	To find a methodology of safe liquidation in thick seams of Raniganj Coalfields: Design & Development & show-casing demonstrative trials at Khottadih colliery, ECL.	2014	2016	Developed methodologies are being practiced in Khottadih UG Mines , ECL
7	Optical fiber based solar illumination of pit bottom and underground mine roadways and working face	2017	2021	Under this project, an optical fiber based hybrid illumination system for mines that will function during sunny / cloudy days and nights was designed and installed in the Jhanjra UG project, ECL. The developed solar power driven, optical fiber

				based illumination system provides > 50 lux of illumination at pit-bottom, which is as per the specified limits of DGMS.
8	Requirement of air in mine for Mass Production Technology	2016	2021	After getting DGMS permission, recommendation may be applied in different mines having Mass production technology
9	Development of guidelines for design of all tiers of shovel-dumper dump above dragline dump, with delineation of phreatic surface, within dragline dump, throughout the year and validation study on two dragline mines of Coal India Limited (CIL)	2018	2022	After getting DGMS permission, recommendations may be applied in different open cast mines having Dragline, shovel-dumpers in operation.
10	Development of a methodology for regional air quality monitoring in coalfield area using satellite data and ground observations	2017	2021	Under this project, particulate matter, and meteorological data from online air quality monitoring stations, MODIS sensor derived AOD data from Terra and Aqua satellite in conjunction with model derived meteorological fields have been utilized to develop satellite based surface level concentration of PM2.5 and PM10 in NCL & MCL. An interface is also developed to visualize and monitor particulate matter and trace gases. Recommendation may be applied in other coalfields.

## Annexure Table – 10

### Illegal mining cases

Company	Nos. of illegal mining cases recorded within lease hold in last year (2021) & current year (2022)	Nos. of FIR lodged by mine management	No. of recorded fatal accidents within leasehold due to illegal mining activities	Steps being taken to prevent illegal mining within leasehold
ECL	Nil	Nil	Nil	Steps taken for prevention by ECL are given below.
BCCL	65	65	Nil	Dozing & filling of illegal mining sites with the assistance of local police & CISF.
CCL	2021-19 2022(up to Aug) - 62	2021- 19 2022(up to Aug) – 62	Nil	1.In 2021& 2022, total 1479 nos. & 2152 nos. rat holes were dozed respectively. 2. Security guards are deployed. 3. Signboards displayed near prohibited / danger area.

#### Steps Taken by ECL to prevent illegal mining:

1. Intelligence collection.
2. ECL has started issuing Hologram to the Sales Department for trucks, which are taking legitimate coal from its mines. This is also intimated to local Police of Burdwan (East) & Burdwan (West) Districts and in case of any truck which is not provided with Hologram of ECL or a doubtful Hologram of ECL checked by ECL Security/Local Police. Necessary department/legal actions are initiated.
3. GPS/GPRS based vehicle tracking system of coal transportation is in use.
4. Installation of CCTV at coal pits head, coal heaps, coal sites weighbridge, entry & exit point of transportation.
5. Installation of electronic weighbridge and in-motion weighbridge connecting to coal net VTS.
6. Some black spots have been identified on the coal transportation route where regular patrolling by ECL Security, CISF and local Police is carried out.
7. Khanan Prahari application is to be used.
8. Surprise checks/raids by CISF, ECL Security along with Police and seizure of illegal coal/illegal trafficking of coal along with involved vehicles and apprehension of miscreants and subsequently handing over them to the local Police Station.
9. Meeting with State Authorities of West Bengal and Jharkhand State and District level meeting (Burdwan, Bankura, Purulia and Birbhum of West Bengal and combined District level meeting of Jharkhand) with District Authorities to curb illegal mining and coal theft.
10. A dedicated task force has been formed to tackle the issues of coal theft.
11. Frequent inspection by Area Team consisting of GM, Area Survey Officer, Area Security Officer along with CISF officials to the affected sites and accordingly meetings are held at Commandant, CISF office regularly.
12. For logical conclusion of the cases which are pending in Court, ECL has engaged lawyers to follow up these cases.
13. Discussion has also been made with the Public Prosecutor in lower Court and Session Court of Asansol to take necessary steps for speedy trial of the case pending in the Court.

14. ECL Security conducted surprise checks/raids along with CISF personnel/Private Security to prevent theft of coal. During the course of checks/raids, they seized coal, apprehended miscreants and FIRs lodged to local Police Stations.

**Annexure Table – 11**  
**Status of dust suppression system**

No. of Mobile water tankers	No of fixed mist type sprinkler system	No. of fog cannons	No. of road mech. sweeping M/c	No. of Vertical /wind barrier	No. of wheel washing m/c	No. of Rain harvesting project	No. of CAAQ MS
850	5682	164	34	34	13	440	65

**Annexure Table -12**

**Bi-partite safety Committee (BSC) & Tripartite Safety Committee (TSC)**

Company	No. of Area	Nos. BSC meeting held in last year (2021) & current year (2022) in Area	Nos. TSC meeting held in last year (2021) & current year (2022) in Area	Date of TSC meeting at Subsidiary HQ in last year (2021) & current year (2022)
ECL	14	15/10	15/0	08-01-2022
BCCL	12	2021- 17 2022 till Aug - 06	2021- 04 2022 till Aug - 01	2021- NIL 2022 – 01 (14.02.2022)
CCL	13	2021 -9 2022 – 4	2021 – 12 2022 - 04	2021 – 23.01.21 & 25.11.21 2022- Nil
NCL	10	10 meetings (in all 10no. of Areas) in 2021. For 2022 meetings are scheduled to be held in Oct. & Nov., 2022	10 meetings (in all 10no. of Areas) in 2021. For 2022 meetings are scheduled to be held in Oct. & Nov., 2022	<ul style="list-style-type: none"> <li>•Held on 18.12.2021 at NCL HQ for 2021&amp;</li> <li>•For 2022 meetings is scheduled to be held in Dec., 2022</li> </ul>
WCL	10	2021: 6, 2022: 10	2021: 8, 2022: 10	05.02.2021, 22.12.2021 & 20.07.2022
SECL	13	2021: 09 2022: 04	2021: Nil 2022: 13	2021: Nil 2022: 01
MCL	12	2021:12 2022: 2	2021:12	<b>1(02.06.2022)</b>



**Annexure Table- 13:  
OB Dump / Bench Monitoring**

Company	No. of OC mines	Total Station		3D Laser scanner		Borehole Extensometer		Slope Stability radar	
		Provd.	Proposed	Provd.	Proposed	Provd.	Proposed	Provd.	Proposed
ECL	31	31	-	-	-	-	-	-	-
BCCL	25	18	15	02	10	NIL	NIL	NIL	NIL
CCL	35	42	0	6	0	4	0	0	0
NCL	10	18	0	10	0	-	-	An indigenous SSR is under trial in Dudhichua Project under S&T Grant of MOC	
WCL	34	42	-	17	-	9	-	1	7
SECL	19	34	-	05	03	-	-	03	-
MCL	15	20	0	11	5	0	0	0	5

**Annexure Table – 14**

**Stowing Status**

Company	Total nos. of producing UG mines	Nos. of stowing depillaring dist.	Nos of stowing dist. where lag is beyond permitted limit	Steps taken to improve stowing
ECL	58	44	28	1. OB processing plant at Kajora Area Capacity 3 l/cum/year has started. 2. Steps taken to fill void by bottom ash
WCL	21	5	Nil	Proposed to use OB washed sand in Mana Incline/Chandrapur Area. Work awarded in Ballarpur Area.

**Annexure Table- 15**

**Haul Road Maintenance**

Company	Total nos. of producing OC mines	Total Haul Road in Km	Total Haul Road maintenance done in 2021-22 (in Km)
ECL	31	85.2	80.5
BCCL	25	57	12
CCL	30	133	133
NCL	10	202.35	168.15
WCL	34	193.10	191.10
SECL	Maintained as per requirement.		
MCL	15	69.2	31.8

## Annexure Table- 16

### Man Riding System (MRS)

Company	MRS installed ( Nos. of mine)	Nos. of MRS installed	Type of MRS
ECL	10	14	Chairlift FSV Battery Loco
BCCL	1	2	Mono Rail Chairlift
CCL	1	1	FSV ( Subject to DGMS approval)
WCL	13	15	Chair lift
SECL	13	17	Chair lift/Rail based
MCL	4	4	Chair lift/Rail based
Total	42	53	

## Annexure Table 17

### Training Imparted to workers

Company	Total Dept. workers deployed in mines	Nos. of VT imparted to Dept. workers		Total Cont. workers deployed in mines	Nos. of VT imparted to Cont. workers	
		2021-22	2022-23 (upto Aug.)		2021-22	2022-23
ECL	41374	8297	5096	8062	2035	1629
BCCL	27526	8011	3782	5614	1698	833
CCL	25708	5141	2754	4205	1799	774
NCL	14064	2774	1017	10194	7129	2557
WCL	28877	7342	2313	12447	7771	2009
SECL	30517	7865	4834	15645	8247	2586
MCL	16768	3522	1899(upto Sept)	13184 (upto Sept)	5452	3437(upto Sept)

## Annexure Table – 18

### Top soil preservation

Company	Total nos. of OC mines	Nos. of OC mines where mine closure plan prepared	Nos. of OC mine where topsoil preserved separately
ECL	31	31	31
BCCL	16 OCs + 09 Mixed Mines	56	As per the availability
CCL	35	35	35
NCL	10	10	10
WCL	49	49	49
SECL	17	17	17
MCL	15	15	The Top Soil is being preserved separately in all mines of MCL, which is utilized for Biological Reclamation / Plantation purpose.

## Annexure Table- 19

### Stone dusting in UG mines

Company	Total nos. of producing UG mines	Total quantity of stone dust required (Te)	Consumption of stone dust in UG mines	
			FY-2021-22 (Te)	FY – 2022-23 (Te) ( as on date)
ECL	58	15020	502.20	120.25
BCCL	5	100	80	20
CCL	3	220	67	74
WCL	21	7669.92	849.125	109.49
SECL	Provided as per requirement.			
MCL	3	45	40	22

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## Agenda Item No. III

### All India Accident Statistics (DGMS)

**Company-wise fatal accidents/ fatalities, serious accidents & serious injuries during 2019-2021 in Coal Mines**

**DGMS:**

Company	Fatal Accidents			Fatalities			Serious Accidents			Serious Injuries		
	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
BCCL	7	4	3	7	4	4	4	5	7	8	10	9
CCL	2	2	2	2	2	2	1	1	2	1	1	2
ECL	8	7	9	8	8	10	11	8	10	15	14	11
MCL	7	5	2	10	5	2	2	2	3	2	2	3
NCL	3	2	3	3	2	3	2	5	7	3	8	7
SECL	7	12	7	8	12	7	14	7	19	14	7	19
WCL	3	5	6	4	5	6	14	4	6	15	4	7
GMDC	0	0	0	0	0	0	0	1	0	0	1	0
IISCO	1	1	0	1	1	0	0	1	1	0	1	2
NLC	2	0	0	2	0	0	0	0	1	0	0	1
SCCL	8	9	7	8	12	13	143	80	127	143	87	129
TISCO	1	0	1	1	0	1	2	4	5	3	4	5
SPL	0	1	0	0	2	0	0	0	0	0	0	0
HINDALCO	1	0	0	1	0	0	0	0	0	0	0	0
WBPDCL	0	0	1	0	0	1	0	0	0	0	0	0
BACL	1	0	0	1	0	0	0	0	0	0	0	0
TSPGC	0	0	0	0	0	0	0	0	0	0	0	0
NTPC	0	0	1	0	0	1	0	0	0	0	0	0
ACL	0	0	0	0	0	0	0	0	0	0	0	0
RCCPL	0	0	1	0	0	1	0	0	0	0	0	0
Total	51	48	43	56	53	51	193	118	188	204	139	195

**Note :** Serious Injuries of fatal accidents are also included.

**(B). DGMS:**Details of Fatal and serious accidents occurred in coal mines between 47<sup>th</sup> meeting (13.04.2022) and 48<sup>th</sup> meeting (30.09.2022):

No. of fatal accident	Killed	No. of Serious accident	Injured
15	16	81	82

**(C). DGMS:** Details of fatal and serious accidents occurred in coal mines for the last three years and current year is enclosed as Annexure-V.

<b>Sl. No.</b>	<b>Parameters</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022*</b>
<b>1</b>	Number of fatal accidents	51	48	43	21
<b>2</b>	Number of Fatalities	56	53	51	24
<b>3</b>	Number of Serious Accidents	193	118	193	132
<b>4</b>	Number of Serious Injuries	204	139	195	145

Note: \* Data is till 30<sup>th</sup> September 2022

## Agenda Item No. -IV

### Details of Fatal and Serious Accidents in between 47<sup>th</sup> meeting and 48<sup>th</sup> meeting

#### 1. Coal India Ltd. (CIL):

##### a). Details of Fatal and Serious accidents in between 47<sup>th</sup> meeting and 48<sup>th</sup> meeting

SN	Parameters	April, 2022 to Aug, 2022	April, 2021 to Aug, 2021	Change	% Change
1	Numbers of fatal accidents	9	12	-3	-25%
2	Numbers of fatalities	11	13	-2	-15%
3	Numbers of Serious accidents	35	25	+10	+40%
4	Numbers of Serious Injuries	40	27	+13	+48%

##### b) Subsidiary-wise break up of fatalities for the period from April, 2022 to Sept, 2022 Vis-à-vis April, 2021 to Sept, 2021

Company	April, 2022 to Sept, 2022	April, 2021 to Sept, 2021	Change	% Change
ECL	1	5	-4	-80%
BCCL	2	0	+2	+200%
CCL	1	1	0	0%
NCL	1	2	-1	-50%
WCL	2	2	0	0%
SECL	4	2	+2	+100%
MCL	0	1	-1	-100%
<b>CIL</b>	<b>11</b>	<b>13</b>	<b>-2</b>	<b>-15%</b>

##### c) Fatalities of Dept. and Cont. Employees for the period from April, 2022 to Sept, 2022 vis-à-vis April, 2021 to Sept, 2021

SN	Parameters	April, 2022 to Sept, 2022	April, 2021 to Sept, 2021	Change	% Change
1	Dept. Employees	8	7	+1	+14%
2	Cont. Employees	3	6	-3	-50%

d) Subsidiary-wise break up of Serious Injuries for the period from April, 2022 to Sept, 2022 vis-à-vis April, 2021 to Sept, 2021

Company	April, 2022 to Sept, 2022	April, 2021 to Sept, 2021	Change	% Change
ECL	6	4	+2	+50%
BCCL	3	2	+1	+50%
CCL	2	0	+2	+200%
NCL	4	1	+3	+300%
WCL	8	4	+4	+100%
SECL	17	14	+3	+21%
MCL	1	2	-1	-50%
<b>CIL</b>	<b>40</b>	<b>27</b>	<b>+13</b>	<b>+48%</b>

e) Serious Injuries of Dept. and Cont. Employees for the period from April, 2022 to Sept, 2022 vis-à-vis April, 2021 to Sept, 2021

SN	Parameters	April, 2022 to Sept, 2022	April, 2021 to Sept, 2021	Change	% Change
1	Dept. Employees	35	25	+10	+40%
2	Cont. Employees	5	2	+3	+150%

2. SCCL:

Details of Fatal and Serious accidents in between 47<sup>th</sup> meeting and 48<sup>th</sup> meeting (From 13.04.2022 to 30.09.2022):

Sl. No.	Parameters	Number
1	No. of Fatal accidents	2
2	No. of Fatalities	2
3	No. of Serious accidents	44
4	No. of Serious injuries	46

3. **NLCIL:** In NLCIL, there is No fatal and serious accidents occurred in between 47<sup>th</sup> meeting and 28<sup>th</sup> meeting.

4. **TSGENCO:**Details of fatal and serious accidents in between 47<sup>th</sup> meeting 48<sup>th</sup> meeting :

Sl. No.	Parameters	Number
1	<b>Serious proved Fatal</b>	1
2	No. of Fatalities	1
3	No. of Serious accidents	-
4	No. of Serious injuries	-

**5. Sasan Power Ltd. :**

<b>Sl. No.</b>	<b>Parameters</b>	<b>Number</b>
1.	Number of accidents	1
2.	Number of persons killed	0
3.	Numbers of Serious accidents	0
4.	Numbers of persons Serious Injuries	1

**6. NTPC:** Details of fatal and serious accidents in between 47th meeting and 48thmeeting: **NIL**

**7. WBPDC:** Details of Fatal and Serious accident between 47<sup>th</sup> to 48<sup>th</sup>Meeting: **Nil**



## Agenda Item No. -V

### Details of Fatal and Serious accidents occurred in coal mines for the last three years and current year.

#### 1. SAFETY STATISTICS IN CIL:

##### i). Overall in all parameters:

Sl. No.	Parameters	2019	2020	2021	2022 (upto Sept.)
1	Total Accidents (fatal + serious accidents)	116	102	84	62
2	Total Injuries (fatalities + serious injuries)	124	110	90	69
3	Numbers of fatal accidents	30	29	27	13
4	Numbers of fatalities	34	30	29	15
5	Numbers of serious accidents	86	73	57	49
6	Numbers of serious injuries	90	80	61	54
7	Fatality Rate per Mt. of coal production	0.06	0.05	0.05	0.03
8	Fatality Rate per 3 lakhs man shifts deployed	0.15	0.14	0.10	0.08
9	Serious injury Rate per Mt. of coal production	0.15	0.13	0.10	0.11
10	Serious injury Rate per 3 lakhs man shifts deployed	0.40	0.37	0.20	0.31

##### ii) Company-wise Fatal Accidents, Fatalities, Serious Accidents & Serious Injuries during last three years and current year in CIL.

Company	Fatal Accidents				Fatalities				Serious Accidents				Serious Injuries			
	19	20	21	22	19	20	21	22	19	20	21	22	19	20	21	22
ECL	7	6	7	2	7	7	8	2	18	18	10	8	18	22	11	8
BCCL	6	2	2	2	6	2	3	3	10	9	6	2	12	9	7	4
CCL	2	1	1	2	2	1	1	2	4	7	3	3	4	7	4	3
NCL	2	2	3	2	2	2	3	2	12	14	9	5	12	15	9	5
WCL	2	4	6	1	2	4	6	2	16	6	6	7	17	7	7	9
SECL	6	10	7	4	7	10	7	4	22	15	21	21	23	16	21	22
MCL	5	4	1	0	8	4	1	0	4	4	2	3	4	4	2	3
NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>CIL</b>	<b>30</b>	<b>29</b>	<b>27</b>	<b>13</b>	<b>34</b>	<b>30</b>	<b>29</b>	<b>15</b>	<b>86</b>	<b>73</b>	<b>57</b>	<b>49</b>	<b>90</b>	<b>80</b>	<b>61</b>	<b>54</b>

**iii). Company-wise Cause-wise Fatal Accidents & Fatalities during last 3 years and current year**

Company	Year	Roof fall /side fall		Haulage, winding, conveyor		Trucks, wagons & dumpers		Non-transp m/c		Explosives		Electricity		Others		Total	
		A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F
ECL	2019	1	1	0	0	0	0	3	3	0	0	1	1	2	2	7	7
	2020	2	2	1	1	0	0	1	1	0	0	0	0	2	3	6	7
	2021	2	2	0	0	2	3	1	1	0	0	0	0	2	2	7	8
	2022	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2
BCCL	2019	0	0	0	0	2	2	1	1	1	1	0	0	2	2	6	6
	2020	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2
	2021	1	2	0	0	1	1	0	0	0	0	0	0	0	0	2	3
	2022	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	3
CCL	2019	0	0	1	1	0	0	1	1	0	0	0	0	0	0	2	2
	2020	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1
	2021	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	2022	0	0	0	0	1	1	0	0	0	0	0	0	1	1	2	2
NCL	2019	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2
	2020	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2
	2021	0	0	0	0	3	3	0	0	0	0	0	0	0	0	3	3
	2022	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	2
WCL	2019	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	2
	2020	1	1	0	0	1	1	0	0	0	0	0	0	2	2	4	4
	2021	1	1	0	0	1	1	2	2	0	0	0	0	2	2	6	6
	2022	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2
SECL	2019	1	2	1	1	0	0	2	2	0	0	0	0	2	2	6	7
	2020	1	1	1	1	3	3	2	2	1	1	0	0	2	2	10	10
	2021	1	1	0	0	0	0	0	0	0	0	1	1	5	5	7	7
	2022	0	0	0	0	1	1	0	0	0	0	0	0	2	2	3	3
MCL	2019	0	0	0	0	1	1	2	2	0	0	1	1	1	4	5	8
	2020	1	1	0	0	0	0	1	1	0	0	0	0	2	2	4	4
	2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CIL	2019	2	3	2	2	5	5	10	10	1	1	2	2	8	11	30	34
	2020	5	5	2	2	8	8	5	5	1	1	0	0	8	9	29	30
	2021	5	6	0	0	7	8	3	3	0	0	1	1	11	11	27	29
	2022	2	3	0	0	1	1	1	1	0	0	0	0	9	10	13	15

“Others”- Includes ‘fall of object / person’, ‘fall of partings’, ‘Gas, dust, ‘Inundation’ and other miscellaneous causes.

**A-Fatal Accident**

**F-Fatality**

**iv) Company-wise Place-wise Fatalities during last 3 years and current year in CIL:**

Comp.	Underground				Opencast				Surface				Total			
	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022
ECL	4	6	4	2	1	1	1	0	2	0	3	0	7	7	8	2
BCCL	1	0	2	0	2	2	1	3	3	0	0	0	6	2	3	3
CCL	1	0	0	0	1	1	1	1	0	0	0	1	2	1	1	2
NCL	0	0	0	0	2	1	3	0	0	1	0	2	2	2	3	2
WCL	1	2	2	2	0	1	3	0	1	1	1	0	2	4	6	2
SECL	3	3	6	0	4	4	1	1	0	3	0	3	7	10	7	4
MCL	0	1	0	0	6	2	0	0	2	1	1	0	8	4	1	0
NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>CIL</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>4</b>	<b>16</b>	<b>12</b>	<b>10</b>	<b>5</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>34</b>	<b>30</b>	<b>29</b>	<b>15</b>

**v) Company-wise Place-wise Serious injuries during last 3 years in CIL:**

Comp	Underground				Opencast				Surface				Total			
	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022
ECL	15	17	9	6	1	4	0	2	2	1	2	0	18	22	11	8
BCCL	3	3	2	0	5	1	4	4	4	5	1	1	12	9	7	5
CCL	2	1	0	0	0	2	3	2	2	4	1	1	4	7	4	3
NCL	0	0	0	0	10	11	7	4	2	4	2	1	12	15	9	5
WCL	7	4	0	1	6	1	3	5	4	2	4	2	17	7	7	8
SECL	13	8	12	12	8	6	5	5	2	2	4	5	23	16	21	22
MCL	0	1	0	0	4	2	0	2	0	1	2	1	4	4	2	3
NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>CIL</b>	<b>40</b>	<b>34</b>	<b>23</b>	<b>19</b>	<b>34</b>	<b>27</b>	<b>22</b>	<b>24</b>	<b>19</b>	<b>19</b>	<b>16</b>	<b>11</b>	<b>90</b>	<b>80</b>	<b>61</b>	<b>54</b>

**vi) Company-wise Cause-wise Serious Accidents & Serious Injuries during last 3 years and current year in CIL:**

Comp	Year	Roof fall /side fall		Haulage, winding, conveyor		Tipper & dumpers		Non-transpt m/c		Explosives		Electricity		Others		Total	
		A	I	A	I	A	I	A	I	A	I	A	I	A	I	A	I
ECL	2019	0	0	5	5	0	0	3	3	1	1	0	0	9	9	18	18
	2020	4	4	6	8	0	0	2	4	0	0	0	0	6	6	18	22
	2021	1	2	1	1	0	0	2	2	0	0	0	0	6	6	10	11
	2022	0	0	0	0	0	0	0	0	0	0	0	0	7	7	7	7
BCCL	2019	0	0	0	0	0	0	1	1	1	3	0	0	8	8	10	12
	2020	1	1	2	2	0	0	1	1	0	0	1	1	4	4	9	9
	2021	1	1	0	0	1	1	1	2	0	0	0	0	4	4	6	7
	2022	0	0	1	1	0	0	0	0	1	1	0	0	3	3	5	5
CCL	2019	0	0	0	0	0	0	1	1	0	0	1	1	2	2	4	4
	2020	0	0	0	0	3	3	1	1	0	0	0	0	3	3	7	7
	2021	0	0	0	0	0	0	2	3	0	0	0	0	1	1	3	4
	2022	0	0	1	1	1	1	0	0	0	0	0	0	1	1	3	3
NCL	2019	0	0	0	0	5	5	4	4	0	0	0	0	3	3	12	12
	2020	0	0	0	0	7	7	5	6	0	0	0	0	2	2	14	15
	2021	0	0	0	0	1	1	2	2	0	0	0	0	6	6	9	9
	2022	0	0	0	0	1	1	1	1	1	1	0	0	1	1	4	4
WCL	2019	2	2	1	1	2	2	3	4	1	1	2	2	5	5	16	17
	2020	1	2	2	2	0	0	1	1	0	0	0	0	2	2	6	7
	2021	0	0	0	0	1	2	0	0	0	0	0	0	5	5	6	7
	2022	0	0	1	1	0	0	0	0	0	0	0	0	4	7	5	8
SECL	2019	2	2	2	2	0	0	9	10	1	1	1	1	7	7	22	23
	2020	3	3	1	1	3	3	1	1	1	1	1	1	5	6	15	16
	2021	3	3	3	1	0	0	7	7	0	0	0	0	10	10	21	21
	2022	3	3	3	3	2	2	2	2	0	0	0	0	10	11	20	21
MCL	2019	0	0	0	0	0	0	3	3	1	1	0	0	0	0	4	4
	2020	0	0	0	0	2	2	1	1	1	1	0	0	0	0	4	4
	2021	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
	2022	0	0	0	0	1	1	1	1	0	0	0	0	1	1	3	3
CIL	2019	4	4	8	8	7	7	24	26	5	7	4	4	34	34	86	90
	2020	9	10	11	13	15	15	12	15	2	2	2	2	22	23	73	80
	2021	5	6	2	2	3	4	14	15	0	0	0	0	33	34	57	61
	2022	3	3	6	6	5	5	4	4	2	2	0	0	29	30	49	54

Others"- Includes 'fall of object / person', 'fall of partings', 'Gas, dust, 'Inundation' and other miscellaneous causes.      **A-Serious Accident**      **I-Serious Injury**

## 2. SCCL:

### Analysis of fatal and serious accidents for last three years and current year in SCCL:

SI No	Parameters	2019	2020	2021	2022
1	Fatal Accidents	8	9	7	3
2	Fatalities	8	12	13	5
3	Serious Accidents	138	97	120	59
4	Serious Injuries	138	102	122	63

\*Note: Figures are up to 30.09.2022

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

Mine		2019	2020	2021	2022 (upto Sep.'22)
Mine I	Fatal	-	-	-	-
	Serious	-	-	-	-
Mine IA	Fatal	1	-	-	-
	Serious	-	-	1	-
Mine II	Fatal	-	-	-	-
	Serious	-	-	-	1
BLMP	Fatal	1	-	-	-
	Serious	-	-	-	-
Talabira OCP	Fatal	-	-	-	-
	Serious	-	-	-	-

## 4. Sunflag Iron & Steel Co. Ltd.:Belgaon Coal Mine: Analysis of fatal and serious accidents for last three years and current year

Year	Minor	Reportable	Serious	Fatal
2019	4	0	0	0
2020	0	0	0	0
2021	2	0	0	0
Total	6	0	0	0

## 5. TSGENCO: Details of fatal and serious accidents for last three years and current year:

Year	Minor	Reportable	Serious	Fatal
2020	Nil	Nil	Nil	Nil
2021	Nil	Nil	Nil	Nil
2022	ONE SERIOUS ACCIDENT PROVED FATAL			1

## 6. Sasan Power Ltd.: Detail of fatal and serious accidents for the last three years and current year.

SI No	Parameters	2019	2020	2021	2022
1	Fatal Accidents	0	1	0	1
2	Fatalities	0	2	0	0
3	Serious Accidents	0	0	0	0
4	Serious Injuries	0	0	0	i

**7. NTPC: Details of fatal and serious accidents for last three years and current year.**

S No.	Year	Fatal	Serious bodily injury
1.	2019	Nil	Nil
2.	2020	Nil	Nil
3.	2021	01	Nil
4.	2022 (till 11.10.2022)	Nil	Nil

**8. WBPDCCL: Details of Fatal and Serous accident during last three years and current year:NIL**

## Agenda Item No. –VI

### Analysis of Major accident

1. CIL: There was no “major fatal accident” that occurred in the mines of CIL in the last one year.
2. DGMS : SCCL Accident report

SI No.	Name of Mine	Name of Owner	Date of Accident	Killed	Injured	Name & Designations of the persons killed	Cause of Accident	Persons held responsible for the accident & Action taken against the persons held responsible	Follow Up Action
1	ADRIYALA LONGWAL PROJECT	M/s SCCL.	07 March 2022	3	1	<p>1. S Jaya Raju, Area Safety Officer.</p> <p>2. T Chaitanya Teja, Assistant Manager.</p> <p>3. T Srikanth, Contract Workmen. were killed and</p> <p>1. J Venkatesham, SDL/LHD operator and</p> <p>2. Eraveni Ravinder, Badli Worker were injured.</p>	While a group of 10 persons were supporting the roofs & sides and cleaning the fallen coal in old developed gallery (tail gate road of long wall panel No. 4) suddenly a portion of coal pillar from rise side measuring about 36m (length) X 3.5m (height) X 2.5m(width), collapsed trapping six (06) persons out of which 03 persons succumbed to their injuries and 02 persons seriously injured.	Prosecution has been launched in the Hon'ble Court of Manthani on 21.07.2022 against the Agent and Manager of the Mine and No action is proposed against the deceased Assistant Manager who is also responsible for the accident.	

**3. NLCIL:** One Serious accident took place and details are as follows:

**Description of Accident:**

On 14/09/2022, at around 7:35 Hrs, M/S MIPL Empty dumper No.TN31BJ-6348 was coming out of the mine and approaching the East Garland canal **road junction** near Kollakudi gate. At the same time Pick up carrier No.TN91Y-1118 of M/S MIPL was approaching the junction from opposite side. At the road junction the Pick-up carrier turned right and came in the path of Dumper and collision happened in which Shri Sujit Kulu, Contract worker of M/S MIPL got jerk and was seriously injured.

**Departmental inquiry has been initiated and Form IVA has been sent to DGMS.**

**In the meantime**, immediate action has been taken as follows:

- 1) Traffic island/ Round tana was provided at road junction for guiding the traffic. All vehicles shall KEEP LEFT of the traffic island.
- 2) Safety Training has been initiated to all vehicle operators about Transport Rules in the mine with special emphasis on Right of way.

**4. TSGENCO:** Analysis of major accidents that occurred during the year and status of enquiries and action taken:

Analysis of the accident: Sri Tallapally Kiran - helper has unauthorizedly taken up the lights fixing job without Instructions of the Electrical supervisor and not used Personal Protective Equipment which was available at the site.

**Action taken:** Electrical Engineer and Electrical Supervisors were suspended, issued show cause notice & inquiry conducted. Annual Increments were all stopped from 1st July 2022.

Risk Assessment & Management:

- i. No of mine covered
- ii. Major activities completed

**Action taken:** Compliance : Risk assessment carried out and Safety management plan prepared and implemented.

**5. Sasan Power Ltd.:** Analysis of major accidents that occurred during the year and status of enquires & action taken

**The Event Prior To Accident / Occurrence of Accident:**

On 27.07.2022 in 'G'shift at about 12:15 PM, a serious injury took place. An electrical helper named Mr. Man Singh fell down from a pole and that caused serious bodily injury.

It was planned to replace old GI earth wire / strip of 27 mm dia by 48 mm dia in 5 pole span of 33KV overhead line WRM Ckt-1 (opposite to NRP hopper area) to increase power supply reliability as well as to increase the safety standards. Mr Man Singh (Contract worker), was in complete PPE with full body harness safety belt. He climbed up on the pole through insulated ladder and discharged the line.

After putting the LOTO in group loto box and following all safety standards prescribed in the SOP, the said operation took place but unfortunately it happened.



He sat on support channel and anchored his safety belt at comfortable points on pole, shorted each phase conductor by using aluminum wire.

At around 12:15 PM Mr Man Singh fell down from his pole about 2-3 m away from the pole. All team mates rushed to rescue him.

**Enquiry / conclusion of the Accident:**

The following points were revealed:-

- No burn injury found on Mr Man Singh, so it is not a matter of electrocution.
- Shutdown permit had been received from 132KV Substation as well CHP Control room, to take adequate precaution to not to back charge line.
- Man Singh was in full PPEs including safety belt and there was no chance to roll down.
- Insulated ladder was already provided at the site, through which he climbed on the pole.

Mr Man Singh (Contractual worker), might have tried to change his sitting position and removed both anchoring end of his safety belt for comfort but in doing so, perhaps he lost his balance and fell down. He tried to catch the stay wire, but could not succeed and rolling over stay wire fell down 2-3 mtr away from that pole.

**Recommendation: -**

It was the responsibility of Sri Man Singh, to anchor the safety belt in two different locations to avoid such accident.

**Corrective action / Implementation status:**

- A senior officer should remain present throughout in the course of accident prone operation.
- Skilled manpower is going to be employed
- All previous manpower is also being screened. Only deserving manpower will be employed with us.
- All employees have to undergo for imparting training
- Safety talk is being done in all the units prior to starting their job.

## Agenda Item No.-VII

### Occupational Health Hazards and Health Risk

#### 1. DGMS:

1. 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 as follows :
  - (i) Dust
  - (ii) Mine gases
  - (iii) Noise
  - (iv) Heat & humidity
  - (v) Vibration
  - (vi) Ergonomic hazard
  - (vii) Arduous travel
  - (viii) Radiation
2. Following diseases have been notified as the disease connected with mining operations for the purpose of sub-section (1) of Section 25 of the Mines Act, 1952:-
  - (i) Silicosis
  - (ii) Pneumoconiosis
  - (iii) Manganese Poisoning - Nervous type
  - (iv) Asbestosis
  - (v) Cancer of lung or the stomach or the pleura and peritoneum (i.e.mesothelioma)
  - (vi) Noise induced hearing loss.
  - (vii) Contact Dermatitis caused by direct contact with chemicals.
  - (viii) Pathological manifestations due to radium or radioactive substances.
3. Awareness programme are being conducted among mining industry and the workers about occupational diseases and exposure to hazards at work.
4. Almost all occupational diseases are known to cause permanent disablement and there is no effective treatment. However, most of the occupational diseases can be prevented by adopting proper occupational health measures and engineering control at workplace.
5. 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.
6. In general following measures are to be taken to prevent Pneumoconiosis/silicosis and other dust related diseases to the person in employed in mines.
  - Wet drilling
  - Periodic monitoring of dust levels at workplace.
  - Personal Dust Exposure profile using Personal Dust Samplers.
  - Use of Dust mask and Dust respirator as Personal Protective Equipment.

- Initial Medical Examination before employment and Periodical Medical Examinations of persons employed in mines at an interval of 5 years in general and at an interval of 3 years for persons more than 45 years of age.
- Occupational health survey.
- Regular Awareness Campaign among the mine owners and mine workers regarding causes and prevention of Silicosis and other dust related diseases.

## 2. CIL:

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.

- These Health Facilities render necessary medical treatment to employees and their families.
- Details of Medical Infrastructure and Medical Personnel in CIL & Its subsidiaries are given in the **Table-2 of Annexure. (Page- )**

## 3. SCCL: Occupational Health Hazards and Health Risks:

- SCCL is having ,1 Main Hospital ,6 Area Hospitals , 21 Dispensaries to look after the medical and health facilities for the permanent employees 43000, and their spouses , dependents and retired employees and 25,000 contract employees.
- Occupational hazard signifies both long-term and short-term risks associated with the workplace environment. Adequate measures are implemented to
- In SCCL, the measures stipulated in the statute are followed to prevent occupational health hazards. To monitor the health of employees Occupational Health Services (OHS) has been established with 12 OHS centers.
- OHS include {Initial Medical Examination (IME) and Periodical Medical Examination (PME)} 5 years PME for less than 45 Years, 2 1/2 years PME for more than 45 Years, Pre-placement medical examination, Contract Workmen IME/PME, Food Handlers medical examination, Refraction Test for HEMM Operator for every 01 Year, medical examination Before Retirement (MEBR), Monitoring of chronic diseases like HTN, DM,
- 25 Doctors Trained in AFIH (Affiliated Fellow in Industrial Health) at Central Labour Institute, Mumbai have been designated as "Occupational Health physician to look after the OHS Centres. Thirty four Staff Nurses were trained in OHS. Standard Reporting system of all occupational services is in place.
- All the 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.
- 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.

- 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.

➤ **Details of Medical Executives:**

Category	Requirement (2022-23)	Men on roll as on 30.09.2022	Variance
Specialist Doctors	115	87	-28 #
General Duty Medical	167	120	-47 \$

# against recruitment of 48 Specialist Doctors, 19 Specialists were recruited.

\$ To meet requirement, 30 General Duty Medical Officers recruited on contract basis for a period of one year. POAs are to be issued. Approval was accorded for another 30 General Duty Medical Officers.

- 61 AC Ambulances are available equipped with oxygen all emergency drugs, out of which 11 ICCU ambulances are available, equipped with defibrillators, pulse oxymeters, all emergency drugs with ventilators.
- Empanelled 122 Corporate Hospitals at Hyderabad, Warangal, Vijayawada and Karimnagar etc., for referring SCCL patients who required higher centre medical treatment.
- Installed five oxygen generator plants in SCCL Hospitals at a cost of 1.50 Crores.

### 3. NLCIL: Occupational health hazards and health risk.

The OHS (Occupational Health Services) unit implements Periodic Medical Examination (PME) programme as per DGMS guidelines to monitor the occupational health and wellbeing of miners. PME covers the entire mining population once in 3 years as per DGMS guidelines. PME also focuses on prevention of life style and stress related disorders in addition to examining the workforce for any occupationally related illness through appropriate investigations. OHS also undertakes Master Health Check-up for executives and non-executives from across all mines as a preventive health strategy and Cancer screening programme for early detection and management of breast and cervical cancer among women employees.

The Occupational Health and Safety policy of the company addresses the following objectives to impact quality outcome of Medical surveillance programme aimed at improving health outcomes for employees and their productivity. Measures taken by NLC India Ltd to prevent the mine workers from various health hazards associated with coal mining are as follows:

- ▶ To cover the entire workforce engaged in Mines under Periodic Medical Examination Programme as per DGMS guidelines over a cycle of 3 years for early detection of

occupationally related illnesses and life style induced disorders and interventions to maintain their optimal health.

- ▶ To build and sustain capacity in Occupational Health expertise through periodic sponsoring of doctors to undergo Associate Fellow in Industrial Health – DGFASLI accredited course of 3 months duration.
- ▶ To Train Occupational health physicians in reading and interpretation of X-Ray images as per ILO standards for detection of coal miners pneumoconiosis with support from National Institute of Occupational Health.
- ▶ To create adequate capacity and expertise in allied Occupational Health disciplines like Occupational Health Nursing, Audiology, Industrial Hygiene, Work Physiology and Medical Sociology to address holistic Occupational health needs of workforce in NLCIL.
- ▶ To develop adequate resources for screening of employees and facilities to perform various investigations required for Periodic Medical Examination of Miners as per DGMS guidelines.
- ▶ To develop referral system for proper follow up of workers in various clinical departments in NLCIL Hospital in co-ordination with specialists for management of diseases / disorders detected through PME and in external hospitals in case of medical conditions which require intervention of super specialists for their effective management and control.
- ▶ To build and leverage IT infrastructure facilities for datafication of health records to enable data driven solution for achieving optimal health of workforce in NLCIL.
- ▶ To develop vast talent pool in life saving skills required to manage Industrial accidents and other emergencies in mines and other production units leveraging First Aid Training module.
- ▶ To provide technical support to mining units for conducting on site disaster management and preparedness programme.

To Provide technical support for awareness generation on Occupational Health and Safety practices through On-site camps, display of IEC materials explaining OHS policies and programmes of NLCIL like panel, hoardings in strategic locations in all the mines.

#### **4. TSGENCO: Occupational Health Hazards and health risk.**

- Initial medical examinations are conducted for each and every employee in the mine
- In house Medical officer and supporting staff available round the clock
- Fully equipped medical centre is established in the Mine residential campus
- One ambulance with breathing apparatus facility is kept ready for the emergencies.
- Emergency medical treatment tie ups are in place with SCCL Ltd ., and other corporate hospitals.
- During the pandemic seasons, strict protocol is followed.

#### **5. Ultratech Coal Mine – Bicharpur Coal mine:**

6. Occupational health hazards and health risk. - (a) Coal dust formation is the major health hazard and mitigation plans are in place for dust suppression by fixed sprinklers and mobile water tankers.

(b) Precautionary measures as per guidelines of Ministry of Health, GoI, Directions of District Authority and SOP's of UltraTech Cement are implemented to prevent spreading of covid19 cases in the mine premises. Regular awareness programme are held to educate all

employees regarding using of masks, regular sanitisation & maintaining social distancing during working hours and also at individual homes.

#### **6. NTPC: Occupational health hazards and health risk.**

1. Air borne dust survey is conducted every month at all the mine locations to keep a check on dust concentration below 1 mg/m<sup>3</sup>. Silica percentage is also monitored at all the locations. **Dust Mask, fixed water sprinklers, wet drilling**, compulsory use of **tarpoline cover** over the dispatch trucks and over the train wagon, water tankers for water sprinkling, fog cannons at crushers are being used.

2. Noise Survey is conducted monthly near all the working locations to check the noise levels. Ear plugs and Ear Muffs are used by all the workers and supervisors wherever noise level is found more than 85 dB

3. Highly equipped Health Centre has been developed with sufficient no. of doctors and paramedical staffs by MDO in addition to a First Aid Room in mine. **ALS** (Advance life support) and **BLS** (basic life support ambulances) are used at mine by NTPC Ltd, and stabilization centre is being maintained.

#### **8. WBPDC: Occupation Health Hazards and Health Risk :**

Till date, there is no case of Occupational Health disease. Maximum thrust is being given to reduce the sources of dust generation by suppression of airborne dust at source. Continuous air quality monitoring is being done by a fixed type dust sampler. Water sprinklers are being used round the clock. ETP installed and is in operation at the washing bay of HEMMs. Settling ponds have been provided for siltation of mine discharge water. Dust masks are being used by the field operators and Supervisors.

## Agenda Item No.-VIII

### Risk assessment & Management

**1. DGMS:** Risk assessment exercise in most of the coal mines is completed and it is a continuous process. Management is being pursued for the implementation and periodic review of the Safety management plan.

The complied information regarding Risk assessment and management is available with the Management of the coal companies.

#### 1. CIL:

(i) No of Mines Covered:

- All producing mines of CIL and its subsidiary have been covered.
- Safety Management Plan (SMP) is prepared as per requirement of CMR-2017 and need-based up-dation & revision as per requirement is being done.
- Mine-specific Standard Operating Procedure (SOP) is prepared for each mining operation.

(ii) Major Activities Completed: Activities based on control measures identified in Safety Management Plan (SMP) are being taken.

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

- (i) Strata Control Management
- (ii) Fire / Spontaneous Heating Management
- (iii) Danger of in-rush of water
- (iv) Gas Monitoring
- (v) UG mining operations such as Drilling, Blasting, Loading, supporting, transporting etc.

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 Specialized Training for preparation of Risk Assessment based SMP: Executives who have been trained by SIMTARS, Australia are engaged for imparting training and upgrading knowledge of mine level employees 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.

- Preparation of Principal Hazard Management Plans as per statutory requirement.
- 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 levels.

## 2. SCCL: Number of Mines covered:

All mines of SCCL have been covered.

### I. Major Activities completed:

#### A. Underground Mines:

1. Mine Fires
2. Inundation
3. Machinery
4. Strata Control
5. Mine Gases
6. Electricity
7. Blasting & Use of Explosives
8. Haulage & Transportation
9. Spontaneous Combustion
10. Occupational Health
11. Emergency Response
12. Miscellaneous Hazards

#### B. Opencast Mines:

1. Opencast Transport
2. Underground Galleries
3. Blasting & Use of Explosives
4. Slope Stability
5. Mine Fires
6. Electricity
7. Inundation
8. Opencast Machinery
9. Maintenance & Repair of Machinery
10. Coal Handling
11. Occupational Health
12. Emergency Response
13. Miscellaneous Hazards

### II. Action Taken:

In compliance with the recommendations of 9<sup>th</sup>& 10<sup>th</sup> Conferences, SCCL has arranged training to 10 Mining Executives at **SIMTARS, Australia** on SAFETY MANAGEMENT SYSTEM for providing further training to the trainers under “train the trainers” concept at operational level in June 2017.

SCCL established “Safety Management Training Centres” at Ramagundam and Mandamarri areas for imparting training to the Safety Management Teams of all operating mines by **SIMTARS Accredited Trainers (SATs)**.

All the mines of SCCL have well documented SMPs (covering all the Principal hazards in the mining activities) in line with the provisions of the DGMS Circular No. 5 of 2016 and



submitted to Regional Inspectors of DGMS. They are under implementation and being revised periodically as per Reg. 104 of CMR 2017.

Training to the SMP Teams of all operating mines on implementation of SMP at Safety Management Training Centers, focusing on Hazard Identification & Risk Assessment (HI & RA) has also been completed in SCCL as first step towards ensuring safe operations in a controlled work environment.

Audit on the status of implementation of SMP was conducted by constituting region wise ISO teams in the month of January, 2022.

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

**(i) No of mines covered - 5**

**(ii) Major activities completed**

Risk assessment-based Safety Management Plans (SMPs) has been prepared incorporating all the risk assessment tools as per DGMS for all the mining activities like Bench operations, Specialized Mining Equipment's Maintenance & repairs, Conveyor Maintenance & repairs, Ground Water Control Operations & Maintenance, Conventional Mining Equipment Operations & Maintenance etc. and is being followed & implemented in each & every Mine of NLCIL.

**iii) Action taken**

The Provisions of Reg. 104 of CMR 2017 are fully complied with and copy of Safety Management Plan has been submitted to DMS/Chennai region for Neyveli Mines, DMS/Ajmer region for Barsingsar Lignite Mine and DMS/Bhubaneswar region for Talabira OCP. Review of Safety Management Plan (SMP) is being carried out quarterly. SOP is translated and available in local language for better compliance. Surprise checks are done by senior officials of the Mine to ensure whether it is followed. The Manpower at the site are sensitized by the officials regarding the risks involved in the job, the precautions to be taken to work safely.

### **4. Ultratech Coal Mine – Bicharpur Coal mine:**

No. of mines covered: - One (Bicharpur Coal Mine) -

(ii) Major activities completed:- Hazard Identification and Risk Assessment completed for Incline drivage and CM Operation.-**As in additional sheet attached.**

(iii) Action taken: - Safety Management Plan prepared and submitted to DMS for vetting and improvisation.

### **5. Sunflag Iron & Steel Co. Ltd.:**

**Belgaon Coal Mine:** Numbers of mines covered- 1 (As on date , only one operating mine)

Major Activities Completed -

Risk assessment team formed, All the hazards were identified, Ranking of hazards were done to identify the major hazards (Prioritising of hazards), Rank and identify the principal

hazard, Break all the hazard into different contributing mechanisms, finding control of each mechanism, document procedure for each control & fixing of responsibilities.

Code of practices & Safety operating procedure for reducing/ control all the mechanism of risk prepared and implemented.

- Shortage of statutory manpower in the Company - Nil.
- Safety Budget and its utilisation - 100%.
- Occupational health hazards & health risk - Nil.
- Amendment proposal of Coal Mines Regulation /Mine Act,1952- Nil

## 6. NTPC: Risk Assessment & Management:

(i) **No. of mines covered:** 04 (Pakri-Barwadih Coal Mining Project, Dulanga Coal Mining Project, Talaipalli Coal Mining Project, Chatti-Bariatu Coal Mining Project )

### (ii) Major activities completed:

1. Risk assessment of all the activities was conducted and control plan was framed.
2. Revision of Safety Management Plan is being done regularly and quarterly returns are being submitted to DGMS.
3. SOPs and COPs are framed and implemented at all the projects.
4. Revisions are being done in SOPs and COPs on the basis of learnings from Incident / near miss occurring in mine.

### (iii) Action taken:

1. Reassessment of all the activities/ hazards for the revision of Safety Management Plan.
2. Principle hazard identified and total risk identified.
3. Formulation of Work Plan for mitigation of hazards as per DGMS Circular 03 of 2019.
4. E – SMP formulated.
5. Based upon work plans following actions have been taken.

## 7. Sasan: Status of implementation of SMP at Moher & Moher Amlohri Extension OCP

S. No.	Department	Work plan Number	Subject	Current Status
1	Technical Services	WP_TECH01	Implementation of SOP of Pit Slope & Dump Slope Stability Implementation of SOP of Drill & Blast Designing	Closed
2	Technical Services	WP_TECH02	Identification of critical areas in Dump periphery Maintenance of Conventional Monitoring Devices	Closed
3	Technical Services	WP_TECH03	Procurement of Slope Stability Radar	Open
4	Technical Services	WP_TECH04	Dealing with Water seepage Problems	Closed
5	HEMM Maintenance	WP_HEMM01	Implementation of SOP of Maintenance procedures in HEMM Implementation of SOP of Maintenance	Closed

			procedures in Dragline	
6	HEMM Maintenance	WP_HEMM02	Audio Visual Alarm in HEMM	Closed
7	HEMM Maintenance	WP_HEMM03	Rear Vision Camera in HEMM	Closed
8	HEMM Maintenance	WP_HEMM04	Proximity Warning Device in Dumpers	Closed
9	HEMM Maintenance	WP_HEMM05	Operator Fatigue Warning Device	Closed
10	HEMM Maintenance	WP_HEMM06	Monitoring of PM maintenance schedules	Closed
11	HEMM Maintenance	WP_HEMM07	Operator cabin ROPS, FOPS & Air-conditioner	Closed
12	HEMM Maintenance	WP_HEMM08	NDT of HEMM & Dragline	Closed
13	HEMM Maintenance	WP_HEMM09	Inspection of Safety features of HEMM & Dragline	Closed
14	HEMM Maintenance	WP_HEMM10	Isolation Boxes & Implementation of LOTO in HEMM & Dragline	Closed
15	HEMM Maintenance	WP_HEMM11	Implementation of SOP of Nitrogen charging	Closed
16	HEMM Maintenance	WP_HEMM12	Overload protection of Dumpers	Closed
17	HEMM Maintenance	WP_HEMM13	Mechanization of oil, lubrication and housekeeping	Closed
18	HEMM Maintenance	WP_HEMM14	Mechanized Tyre handling	Closed
19	HEMM Maintenance	WP_HEMM15	Use of approved hoses and guages in HEMM	Closed
20	HEMM Maintenance	WP_HEMM16	Use of leak proof valve assembly	Closed
21	HEMM Maintenance	WP_HEMM17	Guards and Fencings in HEMM	Closed
22	HEMM Maintenance	WP_HEMM18	Drill machine lights as per illumination standards	Closed
23	HEMM Maintenance	WP_HEMM19	Implementation of SOP of Working at Heights during HEMM & Dragline maintenance	Closed
24	HEMM Maintenance	WP_HEMM20	Inspection & timely replacement of Shovel & Dragline ropes	Closed
25	HEMM Maintenance	WP_HEMM21	Use of Dust collectors & Wet drilling in Drills	Closed
26	Electrical Maintenance	WP_ELE01	SLDs, Shock Chart, Labelling & Marking of Electrical Installations	Closed
27	Electrical Maintenance	WP_ELE02	Maintaining Logbooks, shifting of field switches & handling of cable	Closed
28	Electrical Maintenance	WP_ELE03	Use of approved type electrical devices	Closed
29	Electrical Maintenance	WP_ELE04	Safety devices used in electrical installations	Closed
30	Electrical Maintenance	WP_ELE05	Isolation Boxes & Implementation of LOTO in Electrical maintenance	Closed

31	Electrical Maintenance	WP_ELE06	Overhead Line, Lightening Arrestor and Its earthing, cradle guard, anti-climbing device	Closed
32	Electrical Maintenance	WP_ELE07	Dry Type Transformers & Stay Insulators of 33KV	Closed
33	Electrical Maintenance	WP_ELE08	PPE used during Electrical maintenance	Closed
34	Electrical Maintenance	WP_ELE09	Mine Lighting Plan & Illumination Survey	Closed
35	Drilling & Blasting	WP_D&B01	Implementation of SOP of Drilling & Blasting	Closed
36	Drilling & Blasting	WP_D&B02	Implementation of ANFO/SME handling & Mixing & Loading	Closed
37	Drilling & Blasting	WP_D&B03	Use of Permitted explosived and approved Blasting accessories	Closed
38	Drilling & Blasting	WP_D&B04	Implementation of SOP of charging in Hot holes	Closed
39	Drilling & Blasting	WP_D&B05	Provisions related to Transport of Explosives	Closed
40	LNG	WP_LNG01	Implementation of SOP for LNG fitted Dumper maintenance	Closed
41	LNG	WP_LNG02	Implementation of SOP for Operation & Maintenance of LNG Plant	Closed
42	Mine Dewatering	WP_PUMP01	Precautions of Working near Water bodies	Closed
43	Mine Dewatering	WP_PUMP02	Operation & Maintenance of Pumps and Monsoon Planning	Closed
44	Mine Dewatering	WP_PUMP03	Adequate water supply to sprinklers and fire hydrants	Closed
45	Safety	WP_SAFETY01	Implementation & Monitoring of SOPs	Closed
46	Training	WP_VTC01	VTC Training modules & Skill Assessments	Closed

## 8. WBPDCCL: Risk Assessment and Management;

### I. No. of Mines Covered: 5

- II. **Major Activities covered:** We have identified a total of 67 nos. of major activities in connection with mining operations, covering maintenance schedule in workshop and dispatch operation in Railway siding. Risk assessment on maximum no of major activities have been completed and rest few are in process which will be completed soon.
- III. **Action Taken:** SOP of all such identified activities whose Risk score has been calculated, framed and circulated to all operators and supervisors. Special meetings were called section/category wise separately, for understanding of the operators. SMP has been prepared and submitted to DGMS for its approval, and periodical reviews are being done.

## Agenda Item No.-IX

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

#### 1. CIL: Statutory Manpower of CIL as on 01.10.2022

Type	Overman			Mining Sirdar			Electrical Supervisor			Surveyor		
Sub	On Roll	Sanctioned	Shortage (-) / Surplus	On Roll	Sanctioned	Shortage (-) / Surplus	On Roll	Sanctioned	Shortage (-) / Surplus	On Roll	Sanctioned	Shortage (-) / Surplus
ECL	891	1014	-123	1246	1329	-83	161	402	-241	157	213	-56
BCCL	626	787	-161	439	559	-120	671	793	-122	86	114	-28
CCL	651	730	-79	717	828	-111	448	572	-124	149	176	-27
WCL	842	1011	-169	1002	1355	-353	382	568	-186	109	185	-76
SECL	455	774	-319	224	278	-54	363	363	0	55	85	-30
NCL	1056	1184	-128	1249	1472	-223	766	911	-145	129	184	-55
MCL	615	744	-129	349	538	-189	444	676	-232	52	123	-71
NEC	13	15	-2	33	20	13	6	9	-3	4	4	0
Total	5149	6259	-1110	5259	6379	-1120	3241	4294	-1053	741	1084	-343

#### Subsidiary-wise Steps taken to fill up shortages:

**ECL:** 256 new Mining Sirdar has been appointed in August 2022 and 11 more will be in this month. Vacancies of Overman will be filled up from Mining Sirdar who are already eligible for the post. Process of appointment of 255 Asst Foreman Trainee (Electrical) is under progress and 25 retired electrical supervisors are being considered for extension

**BCCL:** Internal notification for filling the shortage of statutory manpower viz. Overman, Mining Sirdar & surveyor has been issued in BCCL in March/April, 2022 and after scrutiny & verification of Statutory certificates submitted by eligible candidates –

- 60 nos. of candidates have been selected to be posted as Overman & to be posted by 01<sup>st</sup> Nov, 2022
- 19 nos. of candidates have been selected to be posted as Mining Sirdar & to be posted by 01<sup>st</sup> Nov, 2022
- Scrutiny & verification of statutory certificates submitted by eligible candidates for Surveyor is undergoing.
- DPC for selection of eligible candidates for Electrical Supervisors is under process at Area HQs.

**CCL:** 6 nos. of Overman have been appointed and for rest it is under process.

**NCL:** Administrative approval has been obtained for filling up of 405 nos. of post in Statutory Mining Personnel through direct recruitment and engagement of EdCIL (India) Ltd. for conducting online examination. Accordingly, EdCIL (India) Ltd. has been issued work order for conducting online examination & other related activities for recruitment of Statutory Mining Personnel in NCL. Recruitment process will be completed by May-2023. There is no shortage of Electrical Supervisor at NCL, however selection of eligible electricians to the post of Asst. Foreman (T), Gr- C, who have valid Electrical Supervisory Certificate of competency with Mining Part will be completed by Jan-23.

## WCL:

Appointment letters of 165 Mining Sirdars for posting in different mines of WCL have been issued on 03.09.2022.

- Shortage of Overman are filled from Mining Sirdars through DPC at area level. Appointment letters of 44 Surveyors for posting in different mines of WCL have been issued.
- To meet shortage of electrical supervisors in the mines, 37 Electrical Degree /Diploma holders and 30 ITI (Electrical) holder are identified and training has been provided in phased manner to obtain electrical supervisory certificate.

## SECL:

- Shortage of overman is fulfilled by promoting mining sirdar. Notification for selection of mining sirdar and surveyor for departmental candidates has been issued and is under process.
- Earlier, notification for selection of Mining Sirdars for departmental candidates was issued by SECL on 05.10.2021. 19 Nos. of Mining Sirdars were selected and order for the same has been issued on 24.05.2022.
- In addition to above, proposal for open recruitment of 350 Nos. of Mining Sirdars and 55 Nos. of Surveyors is under consideration.

**MCL:** Issuance of a new Open recruitment advertisement for above posts shall be done after engagement of an external recruitment agency (by Dec 2022).

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

Statutory manpower of Mining Executives, Mining, Electrical, Mechanical supervisors and Technical Staff are here under.

### MINING EXECUTIVES

Category	Requirement (2022-23)	MOR as on 30.09.2022	Variance (+/-)
Mining Executives(1 <sup>st</sup> Class)	454	449	-05
Mining Executives(2 <sup>nd</sup> Class)	513	358	-155
<b>Mining Executive ( 1<sup>st</sup> &amp; 2<sup>nd</sup> Class) Total</b>	<b>967</b>	<b>807</b>	<b>-160</b>

- Approval was accorded for recruitment of 151 Mining Executives through internal and external source. Notification released for internal source (37–MGT and 27-UMgrs Certificate holders).

### MINING SUPERVISORY STAFF

Category	Requirement (2022-23)	MOR as on 30.09.2022	Variance (+/-)
Overman	976	825	-151
Mining Sirdar	385	363	-22
Shotfirer	632	871*	239
<b>MS + SF Total</b>	<b>1017</b>	<b>1234</b>	<b>217</b>

<b>Total Mining Supervisors</b>	<b>1993</b>	<b>2059</b>	<b>66</b>
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\*871-Shot firer including **794** [SF/MS +JMET (MS/SF)]:

- 794 {628-Sr MS(OM holder), 146-SF/MS(OM Holder)} mining diploma holders acquired Overman certificate are being utilized as Shot firer / Mining Sirdar to get experience before deploying them as Overman. They are given authorization to work as Overman against the vacancy. 20 mining diploma holders working as JMET(MS/SF) are yet to acquire Overman competency certificate.
- Out of **363**- Mining Sirdars, **02** are Overman Certificate holders can be authorized to work as Overman against the vacancy.

#### **SURVEYOR**

Category	Requirement (2022-23)	MOR as on 30.09.2022	Variance (+/-)
SURVEYOR	212	213*	01

\*Including 02 Surveyor trainees (External).

#### **E&M SUPERVISORS**

Category	Requirement(2022-23)	MOR as on 30.09.2022	Variance (+/-)
Electrical Supervisors	339	315	-24
Mechanical Supervisors	345	302	-43@

#### **Electrical Supervisors**

-24 is made up with 21 AFM (Electrical) trainees who has completed two years of experience in UG mines have to acquire electrical supervisory certificate.

#### **Mechanical Supervisors**

- @ Notification is released for recruitment of 56 AFM (Mech) diploma holders through internal source.

#### **TECHNICAL STAFF**

S. No.	Designation	Requirement(2022-23)	MOR as on 30.09.2022	Var(+/-)
1	Electrician	1140	1143	03
2	EP Electrician	310	302	-08
<b>Electrician &amp; EP Electrician Total</b>		<b>1450</b>	<b>1445</b>	<b>-05</b>
3	Fitter	1167	1352	185
4	EP Fitter	662	579	-83
<b>Fitter &amp; EP Fitter Total</b>		<b>1829</b>	<b>1931</b>	<b>102</b>

**Against shortage of 08 EP Electrician:** 22 EP Electrician Trainees through Internal source were selected and are undergoing training.

**Against shortage of 83 EP Fitter:** 27 EP Fitter Trainees through Internal source were selected and are undergoing training.

**3. TSGENCO:** Requirement of statutory manpower and steps taken to fill up the shortage.

S.NO	Category	Requirement	Available	REMARKS
1	First Calss Mine Managers Certificate Holders	13	9	To fill up the vacancies continuous recruitment process is going on as and when required.
2	Second Calss Mine Managers Certificate Holders	28	14	
3	Overman	41	41	
4	Mining Sirdar	12	12	
5	Surveyor	8	5	
6	Engineers		9	
7	Electrical Supervisors		6	
8	Mechanical Foreman		4	
9	Assistant VTO		1	
10	Training Instructors		3	
11	Welfare Officer		1	

To fill up the vacancies continuous recruitment process is going on as and when required.

#### **5. Sasan: Moher & Moher Amlohri Extension OCP**

Total requirement of statutory manpower is 81. Recruitment process to meet the requirement, is on-going & regular process at our mine



**6. NTPC: Requirement of statutory manpower and steps taken to fill up the shortage.**

- (i) Requirement of manpower at coal mining sites of NTPC are planned considering the next 3-5 years and accordingly, actions are initiated for recruitment, inter-project transfers etc.
- (ii) Further, in addition to the statutory manpower being deployed by NTPC, our MDOs have also deployed qualified and competency certified manpower under their roles at coal mining sites, for discharging of operational obligations under the terms of MDO agreement.
- (iii) Diploma Trainees ( Mining, Mine Survey, Mech., Electrical) have been recruited and they are under training.
- (iv) Recruitment process of Overman, Mining Sirdar is under process and they will join shortly.
- (v) Recruitment process of Executive Trainee(Mining) is in advance stage.

**7. WBPDCCL: Requirement of Statutory Manpower and Steps to fill up the shortage.**

Mine	Asstt Manager			Overman & Mining Sirdar			Surveyor		
	Reqd	Available	Shortage	Reqd	Available	Shortage	Reqd	Available	Shortage
Pachwara(N)	18	15	3	33	12	21	4	2	2
Barjora(N)	22	13	9	78	30	48	3	5	NIL
G & GB	17	11	6	31	16	15	4	4	NIL
Barjore	10	4	4	15	10	5	1	1	NIL
Tara(E & W)*	01	NIL	01	NIL	NIL	<b>Nil</b>	01	01	NIL

\*Tara(E & W) mine is presently non working

Regular review and appointment of statutory persons are being done to fill up the shortage, if any .

## Agenda Item No. X

### Safety Budget and its utilization

#### 1. CIL:

##### Funds allocated for Mine Safety:

- In CIL and its subsidiaries, there is no dearth of funds required for ensuring and improving standard of safety in mines.
- Requisite funds for mine safety are allocated as per actual requirement.

##### Funds Utilized for Mine Safety:

##### Company-wise Expenditure for last 3 yrs. and current year 2022-23 (upto Sept.)

(All figures are in Crore Rupees)

Subs.	Year 2019-20	Year 2020-21	Year 2021-22	Year 2022-23 (upto Sept.)
ECL	165	113	223.15	125.29
BCCL	104	119	129.04	69.98
CCL	22	13	77.46	43.61
NCL	75	83	79.44	18.50
WCL	87	85	65.20	27.42
SECL	217	204	200.37	86.70
MCL	53	59	74.99	36.08
Total	723	676	849.65	407.58

#### 2. SCCL: SAFETY EXPENDITURE FOR THE YEAR 2021-22& 2022-2 (up to Aug., 2022)

PARTICULARS	2021-22 (Provisional)	2022-23 Up to August' 2022
EXPENDITURE	<b>₹ in Cr.</b>	<b>₹ in Cr.</b>
CAPITAL EXPENDITURE	<b>8.05</b>	<b>3.29</b>
<b>REVENUE EXPENDITURE (STORES + BILLS)</b>	114.54	43.29
<b>TOTAL EXPENDITURE (CAPITAL + REVENUE)</b>	<b>122.59</b>	<b>46.58</b>
ROOF SUPPORT – GIRDERS	0.93	0.26
ROOF SUPPORT - STEEL ITEMS & CEMENT	30.36	17.21
VENTILATION & SANITATION	1.51	0.12
SAND TRANSPORT AND STOWING	47.02	15.18
SAFETY INCLUDING RESCUE	34.72	10.52
<b>TOTAL</b>	114.54	43.29

#### 3. NLCIL: Safety Budget and its utilization.

Company	Expenditure on Safety (Rs. Cr)		
	FY 2020-21	FY 2021-22	FY2022-23 (upto September 2022)
NLCIL	23.66	28.67	13.53

**4. TSGENCO: Safety Budget and Its utilization:**

Budget utilization from 01/01/2022 to 30/09/2022

S.NO	DESCRIPTION	Expenditure in INR
1	Safety Boards /Hoardings	<b>905719</b>
2	Fire extinguishers	254644
3	Personal Protective Equipment	876494
4	Proximity sensors & rear view cameras	3168300
5	Flash Back Arresters	<b>18012</b>
6	Other Safety Equipment (Torch lights, whistles, Danger lights etc.)	299010
	TOTAL	5504167

**5. SUNFLAG- Belgaon Coal Mine: Safety Budget and its utilisation - 100%.****6. Sasan: Moher & Moher Amlohri Extension OCP**Safety budget utilized during the FY 2022-23 till 31<sup>st</sup> Sept 2022

Sr. No.	Description	Amount (Lacs)
01	Cutting and cleaning of Garland drain, NRP LMV Drain, Laying of Gabion wall, RRM Drain, Drain Cleaning, Hume pipe Work	280.00
02	Annual Refilling of DCP & CO2 along with Gas Cartridge and BA set Cylinder.	10.00
03	Procurement of PPE's and other Safety equipment	129.00
04	ISO Training	10.00
05	Safety devices – Alcohol meter, speed gun	5.00
	Total	434.00

**7. NTPC: Safety Budget and its utilization. (22-23, till September 30<sup>th</sup> )**

Safety Budget (Rs)	Utilization (Rs)
6.79 Crore	3.52 crore

**8. WBPDCCL: Safety Budget and its utilization:**

Adequate budgetary provision are kept every year and its utilization is monitored from different functionary level in order to maintain proper Safety ,Health and Welfare of the person working in the Coal Mines.

## Agenda Item No. XI

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

#### DGMS:

1. **The Occupational Safety Health and Working Conditions (OSH&WC) Code, 2020**, which subsumes **Mines Act, 1952** has been notified in the gazette of India on 29th September, 2020. However, the OSH & WC Code 2020 will come into force from the date notified by the Government of India.
2. **Occupational Safety Health and Working Conditions (Central) Rules 2021**: The draft of the Occupational Safety Health and Working Conditions (Central) Rules 2021, framed under Section 135 Occupational Safety Health and Working Conditions Code, 2020, was notified in the gazette of India G.S.R 729 ( E) dated 19th November, 2020.
- (3) **Occupational Safety Health and Working Conditions Regulations**: The draft regulations on Occupational Safety and Health for Coal, Metalliferous mines & Oil mines, under Section 136 of the Occupational Safety Health & Working Conditions (OSH&WC) Code, 2020 have been prepared.
- (4) The draft standards under the Section 18 of the Occupational Safety Health and Working Conditions (OSH&WC) Code -2020 is being prepared.
- (5) The draft Rules under the Section 23 & 24 of the Occupational Safety Health and Working Conditions (OSH&WC) Code -2020 is being prepared.

#### 2. CIL:

- The Coal Mines Regulations have already been amended and the new Coal Mine Regulation – 2017 has been notified in official gazette by the Central Government on 27<sup>th</sup> November, 2017 and came into force.
- The Occupational Safety, Health and Working Conditions Code (**OSHWC**), 2020 notified vide CG-DL-E-29092020-222112 dated 29.09.2020 replacing the Mines Act- 1952.
- The **OSHWC-2020** has subsumed 13 Acts subsumed into one code, most of the Acts were more than 50yrs old thereby reducing 622 sections into 143 clauses/sections.
- However, the **OSHWC-2020** is yet to be operationalized.
- Regulation under the **OSHWC-2020** is being framed by DGMS.

### 3. Sasan Power Ltd.:

#### Amendment proposal of Coal Mine Regulation/ Mines Act

Sr.	Reference Regulation of CMR – 2017	Existing Scale as per GSR – 427(E) Dated – 13 June 2019	Proposed Amendment	Justification
1.	<p><b>Regulation – 30. Appointment of assistant manager.-</b> In every mine, the manager shall be assisted by assistant Managers on the scale as may be specified by the Board. Provided that in specific cases, the Chief Inspector may relax the requirement of the appointment of Assistant Managers.</p>	<ul style="list-style-type: none"> <li>Up to 1 million cubic meter Average material handled in one financial</li> <li>Above 1 million cubic meter - One additional assistant manager for every 1 million cubic meter of average material handled in one financial year</li> </ul>	<p>In large &amp; fully mechanized opencast coal mines, where heavy earth moving machineries are being in operation, The number of appointment of assistant manager may be consider according to maximum number of</p> <ul style="list-style-type: none"> <li>Maximum Number of HEMM deployment including Loading, transport Equipments are in operation</li> <li>Number of active dumps and faces</li> <li>Other miscellanies job like – Fire Fighting, Dust suppression / Haul Road Maintenance etc.</li> </ul>	<ul style="list-style-type: none"> <li>Now a days In large &amp; fully mechanized opencast coal mines were Deploying big size of heavy equipments will results in small size of fleet</li> <li>Further it reduces active faces, dumps and ancillary work.</li> <li>Less manpower were engaged in these highly mechanised mines.</li> <li>Because numbers of working faces are less, the quantum of supervision is reduced.</li> </ul>
2.	<p><b>Regulation – 34. Appointment of surveyors -</b> Sub – Regulation (3) - The number of surveyors required to be appointed shall be on the scale as may be specified by the Board: - Provided that in specific cases, the Chief Inspector may relax the requirement of the appointment of surveyors</p>	<ul style="list-style-type: none"> <li>Average material handled</li> <li>Number of surveyors</li> <li>1. Up to 1 million cubic meter - <b>Two</b></li> <li>2. Above 1 million m3 and up to 5 million cubic meter - <b>Three</b></li> <li>3. Above 5 million cubic meter and up to 10 million cubic meter - <b>Four</b></li> <li>4. Above 10 million cubic meter and up to 15 million cubic meter - <b>Six</b></li> <li>5. Above 15 million cubic meter <b>One additional surveyorfor every ten million cubic meter of average material handled or part thereof in excess of 15 million cubic meter</b></li> </ul>	<ul style="list-style-type: none"> <li>In large &amp; fully mechanized opencast coal mines, where heavy earth moving machineries are being in operation, The number of appointment of Surveyor may be consider according to maximum number of active faces / Number of active dumps &amp; Other miscellanies job like – Fire Fighting, Dust suppression / Haul Road Maintenance etc.</li> </ul>	<ul style="list-style-type: none"> <li>Now a days In large &amp; fully mechanized opencast coal mines we are using different latest survey equipments like Maptek 3D Scanner , DGPS ,Robotic Total Stations ,Software like - I-Site Studio, Minex, Autocad etc. No use of dumpy level, leveling staff, theodolite for measuring the elevation / angle etc.</li> <li>All the above condition empower a surveyor to deliver the assigned duties more efficiently, accurately and speedy.</li> <li>Hence, number of surveyor may be reduced.</li> </ul>

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