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INSPECTION REPORTS OF
OFFICIALS OF DGMS OF
INSPECTIONS MADE BETWEEN
JANUARY, 2011 AND DECEMBER, 2016



Shri M.K. Rao
 01/3

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Dir/DDG/DG to see/record pl. ✓

NOTE FOR FILE

Name of the Mine	Rajmahal OCP
Name of the Owner	M/s. E.C.Ltd
Name of the Agent	Shri M.K.Rao, FCC
Name of the Manager	Shri K.Kishore, FCC
Name of the I.O.	Sri S. Chandramouli, DDMS
Date of Inspection	22.02.2011 & 23.02.2011

Subject: Part Inspection-Rajmahal OCP

- 1.0 **Introduction:** I paid a visit to the mine on 22.2.11 afternoon & on 23.2.11 forenoon to inspect the measures taken to prevent accident in view of the mine classified as Accident Prone Mine.
- 2.0 A Section of strata through bore hole No.RJH-21 shown as below

surface		
25.2m		Cover
8.0m		Seam-III, being mined.
6m		Parting
5m		Seam-II Top being mined
7.50m		Parting
10.3m		Seam-II Bottom being mined

- 3.0 **Workings:** Rajmahal Opencast mine located in Godda District of Jharkand state produces 40000TPD of D grade coal from three seams. Mining has been currently carried out in 3 patches namely Hill Side Patch, Daharnangi Patch & Deep Mining Zone. At hill side patch removing of overburden & mining & hauling of coal was done departmentally. In the same patch, part of hauling was also contracted out. But at Daharnangi Patch only OB removal was done departmentally and loading and hauling of coal up to CHP was done by contractors. Whereas in Deep Mining Zone total mining is contracted out. On roll manpower of the mine was 868 in opencast and 1080 in surface.
- 4.0 In the lease area, three coal seams namely – (i) Seam III, having thickness about 6 to 8m, (ii) Seam II top, having thickness about 5m to 9m and (iii) seam II bottom, having thickness of 10m to 12m.
- 5.0 **Routes of Inspection:** Accompanied by agent, manager, S/Shri S.P.Burnawal-safety officer, H.P.Gupta- Field Equipment incharge, B.K.Singh-Colliery Engineer(ROCP-incharge of electrical installations), B.P.Das- surveyor, B.S.Chakravarthy-Workman inspector(mining) inspected the records of measures taken to prevent accidents & later inspected the OCP later.

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6.0 **Inspection:-** Inspected the records on 22.2.11 in the afternoon and opencast on 23.2.2011 in the forenoon.

Route followed:- Following light vehicle lane reached Hill side patch & inspected parting bench between Seam-II Top & seam-II Bottom, seam-II top, OB bench over seam-II Top. From there following haul road inspected Daharnangi patch & Deep Mining Zone

Observation:- During inspection of records the following accident statistics were observed

Year	Fatal	Serious	Reportable	Remarks
2006	01	Nil		
2007	03	01		
2008	Nil	03		
2009	01	Nil		
2010	02	01		

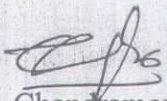
- A. Most of the accidents occurred due to HEMM.
- a) 70% of these accidents had occurred by HEMM. All those injured were neither operators nor helpers, but they were deployed for either supervision of activities or helpers/operators of other machinery.
- b) Main cause for these accidents was negligence of the injured/deceased.
- B. **Major shortcomings & contraventions of Regulation 98(1)&(3), Regulation 186, Regulation 190 read with permission letter No.S34/03/26/006/II-B/1182 dated 8th April,1987 observed during inspection were as follows:-**
- a) Currently no guidelines mentioning the general precautions to be observed by all was neither prepared nor taught at VTC.
- b) As per the VTC documents, refresher training was not given to the required number of employees during the year 2009 & also during 2009. During financial year 1/4/10 to 31/12/10, 156 persons were given refresher training against the requirement of 225, from Jan-2010 to Dec-2010, 203 were trained against the requirement of 300.
- c) Guidelines/standard code of practice for undertaking repair of HEMM & CHP were not framed, taught & implemented.
- d) Standard codes of practices were not issued to authorised persons.
- e) Safety campaign in the mine is inadequate to create awareness among workforce.
- f) Front line supervisory officials were not given adequate training.
- g) Supervisory officials of contractors were not qualified.
- h) Men not wearing safety belts when working at height.
- i) Contractors have deployed about 200tippers of 10T to 20T capacity & 20 excavators. For operating these machineries, they have deployed about 900men. This huge number of machinery also has caused unsafe conditions. Management may be advised to deploy less number of machinery with higher capacity to reduce the congestion and exposing huge manpower to dangers.
- j) Workmen inspectors were reported to be inspecting the workings, but Form-U were not being maintained.
- k) There is shortage of qualified supervisory officials in the mine.
- l) Entry of unauthorised persons & they getting involved in accidents were also occurred. Though CISF has been taken to prevent them from entering in active mining area, but unauthorised persons are still found entering in abandoned part of the mine to dig coal from there & also dump.
- m) There exists a shortage of overman and sirdars.
- n) Drivers of light transport vehicle were not given vocational training.
- o) Inspection of machinery of contractors for safety devices was inadequate. Only few vehicles were checked for worthiness against the all vehicles.

- p) Risk assessment was done only for few activities in March-2007. Each activity was not analysed and assessed for risks involved. Risk management/safety management plan was not prepared based on the assessment.

Reg.98(1)&(3) read with permission letter No. S34/03/26/006/II-B/1182 dated 8th April,1987:-

- Height of the Seam-II Top coal bench was more than the boom height of the excavators deployed at Lalmatia/Hill side patch. Boom height of the excavators deployed is 5.4m, whereas height of the bench was 10m.
- Width of haul road leading to partition OB bench at Daharnangi patch was narrower than three times the width of the dumpers deployed.
- At Deep Mining Zone width of the haul roads from OB benches to Dump was only 5m wide against the requirement of 9m. This haul road was prepared at the bottom & adjacent to the old OB dump. "This dump has to be removed or the haul road has to be abandoned from use".
- At Daharnangi patch, there exists a small water body & a slush sump at higher RL than the bottom most bench with a narrow barrier in between. "This water body & dry sump have to be either pumped out or brought down to the lowest level".
- Height of Berms was not sufficient for the height of the wheels of dumpers deployed.
- Light vehicle lane has not been provided for all along the haul road.
- Tractors with two wheel tailors were deployed in the mine.
- Many persons were employed in the mine were not wearing helmets and approved foot wear.

Management will be addressed suitably. The copy of the spot violation report is attached herewith.


(S. Chandramouli) 28/2/2011
Dy. Director of Mines Safety
Sitarampur, Region No.III

Note for file

Name of the Mine : Rajmahal OCP
 Name of the Owner : M/s ECL
 Name of the Agent : Sri M. K. Rao
 Name of the Manager : Sri Amarendra Kumar
 Name of the I.O. : S/Sri S.K.Dutta DMS & M.D.Mishra, DDMS
 Date of Inspection : 10 & 11.1.2012

Sub:- Part Inspection/ OCP/.

- 1.0 I called at the mine to check the operations being done at the mine. Shri M.D.Mishra, DDMS, Chief General Manager, Rajmahal Area, Chief General Manager (Safety) ECL, Agent, Manager and Surveyor accompanied me during the inspection.
- 2.0 **Background Information** : At this mine, at present 3 (three) patches were being worked. The mine is employing about 2250 persons and producing about 42,000 tonnes of coal per day. The following patches were being worked presently at the mine :
- 2.1 **Lalmatia Patch** : The size of the quarry was about 540m x 290m x 60m (deep). This patch is being worked contractually by M/s IVRC.

The hypothetical strata section of the area was as below :

20.0m	Cover
6.0m	Seam-III.
16m	Parting
30m	Seam-II Top & Bottom

- (i) At present, Seam-III (6m thick) was being worked by deploying HEMM and deep hole drilling and blasting. Seam-II (Top & Bottom 30m thick) was worked out earlier and partly lying waterlogged. The workings of seam-II (top & bottom) are being backfilled from south side.
- (ii) The machinery deployed consisted the following :-

Sl No	Type of machinery	Numbers deployed at the mine	Remarks
1	Excavator (2cu.m & 3.5 cu.m)	7	
2	Dumpers (15 tonner)	30	
3	Water Tanker	1	
4	Dozer	2	
5	Grader	1	

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- (iii) About 120 contractual persons were employed in the patch under the supervision of 2 Asstt. Managers, 1 Overman, & 1 Mining sirdar. The average bench height was 6m. and average bench width was 12m. Overburden was backfilled from south side and about 220m horizontal length was filled up from south and at about 800m length, filling was required where there were high wall of about 75m high on the dip side. This filling would take about 11 months. This patch was producing about 10,000 tones of coal/day and 15,000 Cu.m of overburden per day.

2.2 **Dahar Nangi Patch:** This patch is worked in overburden by departmental machinery and coal was extracted by contractual hired machinery.

The hypothetical strata section of the area was as below :

57.0m		Cover
6.9m		Seam-III.
18m		Parting
32m		Seam-II (Top & Bottom)

- (i) The size of the quarry was 700m x 240m x 120m (deep). 9 benches were there with average bench height of about 20m and bench width of about 30m. The overburden from this area is also back filled at a distance of about 1km. The departmental machinery used in the overburden benches were as below :

Sl No	Type of machinery & Capacity	Numbers deployed at the mine	Remarks
1.	Shovel (20 cu.m)	5	
2.	Hydraulic Shovel (12 cu.m)	3	
3.	Drill machine (250m dia, 17m depth)	4	
4.	Dumpers (170 tonner)	8	
5.	Dumpers (85 tonners & 100 tonners)	20	
6.	Dozer	10	
7.	Grader	3	
8.	Water Tanker	4	
9.	Wheel Dozer	1	
10.	Diesel Bouzer	1	
11.	Service Vehicle	1	

- (ii) About 30,000 cu.m of overburden was being handled per day from this patch by departmental machinery.
- (iii) The coal from this patch was extracted by M/s Laxmi Trading Co. by deployment of 24 nos. of dumper (20 toners), 2 excavators (3.5 M³ bucket capacity), 1 Dozer, 1 Grader, 1 Diesel Bouzer. About 100 man power was deployed by contractor and about 10,000 tonnes of coal was produced per day.

2.3

Deep Mining Patch : This patch was totally worked by contractual machinery by M/s Soumya Mining Contractors. Following machinery were used by the contractor :-

SI No	Type of machinery & Capacity	Numbers deployed at the mine	Remarks
1.	PC- Shovel (3Cu.m & 2 Cu.m)	7	
2.	Dumpers (20 tonner)	40 to 45	
3.	Grader	1	
4.	Dozer	1	
5.	Diesel Bouzer	1	

- (i) The size of the quarry was about 800m (Lengh) x 320m (width) and 130m (deep).
- (ii) The hypothetical strata section of the area was as below :

5.0m		Cover
5.5m		Local Seam -(being worked)
36m		Parting
1.5m		Seam-IV- (Being worked)
25m		Parting
40m		Seam -III (Top & Bottom)- Lying partly waterlogged

- (iii) At present the local seam and seam-IV were being worked in rise side of the quarry. The average bench height was about 10m and width was also 10m. Overburden bench was back filled at the worked out area at a distance of about 3 to 4 km. About 400 persons were deployed by the contractor.

3.0 **Inspection :** Accompanied by Chief General Manager, Rajmahal Area, Chief General Manager, (S & R), ECL, Agent, Manager and Surveyor of the mine I and M.D.Mishra, DDMS inspected the quarry working being done at the above 3 patches. Also inspected the overburden benches, coal benches and workshop of the mine. HEMMs were also checked during the course of inspection. Some dumpers & tippers were checked for their roadworthiness. Brake was found in order but most of the tippers were not found having blind view mirrors & Audio Visual Alarms. M/s Soumya Mining, M/s Laxmi Trading Co. & M/s IVRC were requested to set right their tippers early. M/s Laxmi Mining has started work recently and their machines are still coming. M/s IVRC has also started work recently and their machines are also coming.

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Observations : Following observations and contraventions were found during the course of inspection :-

Regulations 127 : At Lalmatia patch, workings were being extended towards waterlogged workings but not within 60m. Management were requested to change the site of workings. They were requested to work in the area from rise side of the waterlogged area. So that no danger of drowning could take place. They have agreed to shift the workings place.

Regulation 126 : At Daharlangi patch, management were requested not to engage any machinery on the dip side of the central sump. Management were also requested to take floor coal from rise side of the sump so that sump water may go to dip side automatically.

Regulation 98(1) & (3) read with permission letter No. S4/03/26/006/II-B/87/1182 dated 8.4.1987 & S4/010375/II-B/9/629 dated 22.3.1996 :

- (a) At deep mining patch, 15m high vertical bench was found above the local coal seam on the south side of the quarry for a length of about 60m. At this area, no HEMM shall be deployed at the toe of this high bench and the bench height shall be reduced from top downwards.
- (b) At Daharlangi patch on south-east side of the quarry, 25m vertical high bench was found in overburden over the seam No.-III for a length of about 100m. At this area, no HEMM shall be deployed at the toe of this high vertical bench and bench height shall be reduced in this area from top downwards.
- (c) Haul road gradient at Lalmatia patch, in overburden bench was found as high as 1 in 8 against 1 in 16.
- (d) On South-East side, at Daharlangi patch, bench height of about 50-60m was found at the bottom of the quarry for distance of 200m. No machines shall be deployed at the toe of these high vertical bench up-to 30m and bench height shall be reduced from top downwards in this area early.
- (e) Haul road width was found insufficient at working overburden bench at Lalmatia patch. working coal bench in Daharlangi patch and working overburden bench in Deep Mining Patch.
- (f) At Lalmatia patch 75m high wall was found standing on dip side of the area for a length of about 800m which is being back filled. This areas shall be back filled early.
- (g) At 14 no. dump where there is dump height of about 30m to 40m and at old view point where the dump height is about 60m, in this areas Scientific Body shall be engaged to determine the dump slope stability.

Regulation 190 read with Circular No. 5 of 2010 & Circular No. 9 of 2008 :
All Contractual machinery deployed at the mine were not checked for their roadworthiness as per the above circular. The mine management is requested not to deploy any machinery without complying the above safety features as mentioned in the above circular.

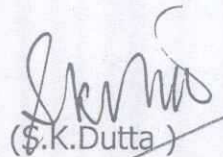
Regulation 190 read with recommendation of 10th Safety Conference in Mines :-

- (a) Contractor's workers were not imparted vocational training as per rules.
- (b) Contractor's workers were not checked for initial periodical medical examinations.
- (c) Noise mapping has not been done at the mine.
- (d) Ergonomical study was also not done at the mine.
- (e) Surveyed off machines (especially 170 tonner) were being used at the mine.
- (f) Dumper operators of contractual tippers/dumpers are changing hot seats at the working place or at haul road which is not safe. They should change the place of work at some specified bays and not at haul roads or working place.

Regulation 34/113 : There were shortage of about 12 nos. of overman and 14 nos. of mining sirdars at the mine.

Regulation 151 : General lighting arrangement provided at the dump and haul road was found insufficient.

The management is being addressed to comply the above mentioned contraventions at the earliest.


(S.K. Dutta)
Director of Mines Safety
Sitarampur Region No. III

इस निरीक्षण से पूर्व इस खदान का निरीक्षण श्री यू , के , शर्मा, निदेशक , श्री एम, डी, मिश्रा, उप निदेशक. एबम् मो० नियाजी , उप निदेशक क्षेत्र सं० 3, सीतारामपुर द्वारा दिनांक 26.06.2013 को किया गया था ।

179
10.2.14

अंश 10.02.14

उत्पल साहा 13/2/2014

निदेशक / उपमहानि. / महानि. कृपया देखें / रिकार्ड करें ।

फाइल के लिए नोट

खान का नाम	:	राजमहल ओ०सी०पी०
मलिका का नाम	:	मेसर्स ई, सी, एल
अभिकर्ता का नाम	:	श्री एम० के० राव
प्रबन्धक का नाम	:	श्री पी० कुमार
निरीक्षण अधिकारी	:	सर्वश्री उत्पल साहा, खान सुरक्षा उप महानिदेशक, यू , के , शर्मा, निदेशक , एम, डी, मिश्रा, उप निदेशक. सी० पलानीमलै, उप निदेशक (विद्युत) एवं मो० नियाजी , उप निदेशक क्षेत्र सं० 3
निरीक्षण दिनांक	:	06. 02. 2014 (पूर्वाह्न)

विषय:-आंशिक निरीक्षण ।

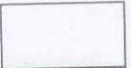





- 1.0 While in the area for attending Area Level Tripartite meeting at Rajmahal, I accompanied Sri Utpal Saha, Dy. Director General of Mines Safety, Eastern Zone, Sri U.K. Sharma, Director of Mines Safety, Region No.3, Sri M.D. Mishra, Dy. Director of Mines Safety, Sri C. Palanimalai, Dy. Director of Mines Safety (Electrical) and called at the mine for the inspection of open cast workings of Rajmahal OCP (RCML patch). Sri G.Pandey, General Manager, Sri M.K. Rao. Agent. Sri P. Kumar, Manager, Surveyor and other officials of the mine accompanied us during the course of inspection.
- 2.0 Rajmahal Opencast Project of M/s Eastern Coalfields Ltd; situated in Godda district of Jharkhand State was started in the year 1987 and it was located at a distance of about 210 km from Sitarampur Zonal/Regional office. Total leasehold area of the mine was 1978 Ha. The mine operates round the clock in three different shifts, each of eight hours duration and produces an average of about 39,000 t of coal and excavates about 75000m³ of overburden per day with an average daily employment of 1664 persons.
- 3.0 Rajmahal OCP lies within Lalmatia exploration block which covers on an area of about 15 sq. km. Eight persistent coal horizons of barakar formations have been identified in this block. The seams within the leasehold area in the ascending order are I, II(bottom), II(top), III, IV, IX, X and XI. The seams II(bottom), II(top), III are highly interlaced in nature within the leasehold area. More than 95% of reserves in this block occurs in II(bottom), II(top) and III seams along with their various combinations. All the seams in-crops in the leasehold area under a thick alluvium cover of 15m to 30m thick. The top III seam having thickness about 2m to 10m is in-cropping at a depth of cover about 25m. The next underlying seam-II top, having thickness about 7m to 9m, occurred at a parting of 4 to 6m from seam-III and seam -II bottom having thickness of about 8m to 17m occurred at a parting of about 6-8m from seam-II top. General dip of all the seams is 1 in 20 due S 30° E.

4.0 Surface features of the mine consists of 7 no.s of small water tanks within the leasehold area, water garland drain situated along East-West on the South side of the property, farak... assisted railway siding (for coal transportation to power plant) was situated on the North and on the East Chotasimra, Bhadota, Abhitola and Bathantola villages, on the West Taljahari village and on the South Chhotabhouri village were situated.

5.0 17 no.s of faults have been postulated within the leasehold area. Among these six South-wards heading faults, namely F5, F6, F8, F10, F13 and F15 are of major magnitude. The details were as below:

<u>Name of fault</u>	<u>Throw</u>	<u>Amount of throw</u>
F5	up throw	5m
F6	down throw	15m
F8	down throw	60m
F10	down throw	25m
F13	down throw	40m
F15	up throw	10m

6.0 Section as revealed by bore hole No.RJH-21 is given below:

25.2m		Cover
8.0m		Seam-III, being mined.
6m		Parting
5m		Seam-II Top, being mined.
7.50m		Parting
10.3m		Seam-II Bottom, being mined.

7.0 Rajmahal OCP was being worked in three patches namely RCML patch, Daharnangi patch and Lahundia patch.

RCML patch: In this patch removal of overburden and extraction of coal was done contractually by M/s RCML. 2m³ capacity hydraulic excavators of Hitachi make eight in number, 20t capacity dumpers of Volvo make 24 in nos. and one Writgen make Surface miner having capacity to produce 900tph were deployed in this patch. On an average 20,000m³ of overburden and 4,500 t of coal was being produced on daily basis from this patch.

Daharnangi Patch: In this patch removal of overburden and extraction of coal was being done departmentally by deployment of 10m³ and 20m³ capacity electric rope shovels and transportation was done by 170 t, 100t & 85 t capacity dumpers. On an average of 35,000m³ of overburden and 22,000 t of coal was being produced on daily basis from this patch.

Lahundia Patch : In this patch the total operations of overburden removal and coal extraction was outsourced to M/s Maha Lakshmi Infra Pvt. Ltd. 2m³ capacity hydraulic excavators six in numbers and 20t capacity dumpers 22 in number were deployed. On an average of 20,000m³ of overburden and 13,000 t of coal was being produced on daily basis from this patch.

8.0 Following HEMM were deployed in different working benches of overburden and Coal in the open cast workings of the mine :

S. No	Machinery	Specifications	Population
1	Electric Rope Shovel	Bucket capacity- 20 m ³ & boom height- 20m	05
2	Hydraulic Shovel	Bucket capacity- 12 m ³ & boom height- 11m	03
3	Hydraulic shovel	Bucket capacity- 2m ³ & boom height-6.5m	06
4	Hydraulic Shovel	Bucket capacity 3m ³ & boom height-8.0m	08
5	IR -Drill machine	160 mm dia.	03
6	IR-Drill machine	250 mm dia.	04
7	BEML Dozer	D-155	08
8	Wheel dozer	-	04
9	Dumper	170 t	13
		100 t	23
		85 t	08
		20 t	68
10	Grader		05
11	Surface miner	900tph	01
12	Diesel Bouzer	-	03
13	Water tanker	28KL capacity	07
14	Crane	One 15 tonner & one 40 Tonner	2

9.0 Management obtained permission under Regulation 98(1)&(3) of the Coal Mines Regulations 1957 to remove overburden and extract coal by opencast method by the deployment of HEMM in conjunction with deep hole drilling and blasting vide this Directorate's letter no. S4/03/26/006/II-B/87/1182 dated 08.04.1987. Blasting operations were conducted with due precautions (control blasting) in this regard management obtained permission to conduct blasting within 300m upto 100m of dwellings under Reg. 170(IB) & Reg. 170(1A) of the CMR 1957. Permission under regulation 161(1) & 168(5) of the CMR 1957 to use SMS explosive was also granted to management vide letter no. S3/010375/II-B/2007 dated 15.10.2007.

10.0 Manager of the mine was assisted by one safety officer, 23 asst. managers, 18 overman and 17 Sirdar in supervision of the mine.

11.0 **Inspection:** Accompanied by Sri G. Pandey, Area General Manager, Sri M. K. Rao, Agent, Sri P. Kumar, Manager, Surveyor, Sri Mukesh Kumar, [GM(planning), RCML], Sri A.K. Sinha, [Manager, RCML] and other officials of the mine, we inspected the workings of RCML patch (Contractual patch).

The size of the quarry being worked by RCML was 280m(EW) X 380m (NS) X 64 m (depth). Quarry operations were progressing in South-East direction towards the mine boundary. Overburden consisted of 7m - 18m soil beneath which hard rock existed. There were 05 benches in OB varying in height from 4 m to 10 m and width varying from 6m to 28m where as in coal there were 02 benches varying in height from 12m to 16m and width thereof varying from 6m to 18m. Surface miner having capacity to produce 900 tph was deployed at the 2nd coal bench of this patch for winning the coal and the coal produced was loaded into 20t capacity Volvo make dumpers with the help of pay loaders and the coal was transported through the trucks away to coal stock yard. Overburden removed at various benches in opencast workings was loaded and transported away to overburden dump yard with the help of HEMM.

The following contraventions of the Coal Mines Regulations, 1957 were observed during the course of inspection:

Regulation 151 & 154 read with DGMS Cir.(Legis.) 1 of 1976: Adequate lighting as prescribed was not provided at the working benches of overburden as well as coal where HEMM were deployed in RCML patch. Workings at this patch shall be restricted to day light hours till arrangements of illumination were made as per the standards prescribed under these regulations.

Regulation 98(1)& (3) read with the permission letter No.S4/1182 dated 8.4.1987, S4/629 dated 22.3.1996 and DGMS(Tech.) Circular no. 9 of 2008 :

- (i) At RCML patch, sides were not kept adequately benched. Height of bench in coal in flush with over burden between the grids 243930N, 244120N & 189720E, 189860E varied from a minimum of 8m to as much as 28m as against the permitted height of 8m (maximum reach of excavator deployed). for a horizontal distance of about 190m. No men or machinery shall be permitted to approach the toe within a horizontal distance at least equal to height of high wall. Formation of benches shall be done from top downwards in accordance with the permission.
- (ii) Width of haul road to coal bench at RCML patch was not found at least three times of the width of the dumper plying on the road.
- (iii) Berms of sufficient height and width were not found provided along the edge of benches in coal as well as in overburden.
- (iv) 20t capacity dumpers were found plying on haul roads with speed in excess of 30 kmph.

Reg. 98 (1) & (3) read with DGMS(Tech.) Circular no. 6 of 2008: Separate road for light motor vehicle was not provided right upto the active mining area.

Reg. 123 read with DGMS(Tech.) Circular no. 9 of 2008: Wet drilling arrangement was not found provided in 04 numbers of drill machines out of 07 being used at the mine, with a view to suppress the dust at the source of formation and to prevent getting air borne.

Regulation 188: Notice for prohibiting un-authorized entry of the persons in the opencast workings was not posted at every entrance to the mine workings. Unauthorised persons were found loitering on haul roads.

Reg. 190 read with DGMS (Tech.) Circular No. 1 of 2009: Surveyed-off dumpers of 170t capacity, were being used at the mine without following the guidelines as detailed in the circular as above. These dumpers shall not be put into service until the recommendations of the committee constituted as required by the Circular were fully complied with.

Reg.191C: Operators of dumpers /tippers were found without wearing safety belts.

Management is being suitably addressed.

ओश
10.02.2014

म. निराजी 10/2/14
(मो० निराजी)
खान सुरक्षा उपनिदेशक
सीतारामपुर क्षेत्र संख्या-3

कुलकर्णी 11/8/14
उत्पल साध 13/8/2014
निदेशक / उपमहानि. / महानि. कृपया देखें / रिकार्ड करें ।

1052
मिति ११/११/१९५४
५/८/५४
खान का
मुजि का
अभिकर्ता
प्रबन्धक
निरीक्षण
निरीक्षण
Region No-24/11/1954

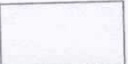





विषयः—आंशिक निरीक्षण ।

- 1.0 While in the area I, called at the mine for the inspection of open cast workings of Rajmahal OCP. Sri M.K. Rao. Agent. Sri P. Kumar, Manager, Sri B.P. Das, Surveyor and other officials of the mine accompanied me during the course of inspection.
- 2.0 Rajmahal Opencast Project of M/s Eastern Coalfields Ltd; situated in Godda district of Jharkhand State was started in the year 1987 and it was located at a distance of about 210 km from Sitarampur Zonal/Regional office. Total leasehold area of the mine was 1978 Ha. The mine operates round the clock in three different shifts, each of eight hours duration and produces an average of about 30,000 t of coal and excavates about 60000m³ of overburden per day with an average daily employment of 1654 persons.
- 3.0 Rajmahal OCP lies within Lalmatia exploration block which covers on an area of about 15 sq. km. Eight persistent coal horizons of Barakar formations have been identified in this block. The seams within the leasehold area in the ascending order are I, II(bottom), II(top), III, IV, IX, X and XI. The seams II(bottom), II(top), III are highly interlaced in nature within the leasehold area. More than 95% of reserves in this block occurs in II(bottom), II(top) and III seams along with their various combinations. All the seams in-crops in the leasehold area under a thick alluvium cover of 15m to 30m thick. The top III seam having thickness about 2m to 10m is in-cropping at a depth of cover about 25m. The next underlying seam-II top, having thickness about 7m to 9m, occurred at a parting of 4 to 6m from seam-III and seam -II bottom having thickness of about 8m to 17m occurred at a parting of about 6-8m from seam-II top. General dip of all the seams is 1 in 20 due S 30° E.
- 4.0 Surface features of the mine consists of 7 no.s of small water tanks within the leasehold area, water garland drain situated along East-West on the South side of the property, farakka assisted railway siding (for coal transportation to power plant) was situated on the North and on the East Chotasimra, Bhadota, Abhitola and Bathantola villages, on the West Taljahari village and on the South Chhotabhouri village were situated.

5.0 17 no.s of faults have been postulated within the leasehold area. Among these six South-ward heading faults, namely F5, F6, F8, F10, F13 and F15 are of major magnitude. The details were as below:

<u>Name of fault</u>	<u>Throw</u>	<u>Amount of throw</u>
F5	up throw	5m
F6	down throw	15m
F8	down throw	60m
F10	down throw	25m
F13	down throw	40m
F15	up throw	10m

6.0 Section as revealed by bore hole No.RJH-21 is given below:

25.2m		Cover
8.0m		Seam-III, being mined.
6m		Parting
5m		Seam-II Top, being mined.
7.50m		Parting
10.3m		Seam-II Bottom, being mined.

7.0 Rajmahal OCP was being worked in three patches namely RCML patch, Daharnangi patch and Lahundia patch.

RCML patch: In this patch removal of overburden and extraction of coal was done contractually by M/s RCML. 2m³ capacity hydraulic excavators of Hitachi make eight in number, 20t capacity dumpers of Volvo make 24 in nos. and one Writgen make Surface miner having capacity to produce 900tph were deployed in this patch. On an average 20,000m³ of overburden and 13,000 t of coal was being produced on daily basis from this patch.

Daharnangi Patch: In this patch removal of overburden and extraction of coal was being done departmentally by deployment of 10m³ and 20m³ capacity electric rope shovels and transportation was done by 170t, 100t & 85 t capacity dumpers. On an average of 6000t of coal was being produced and 35,000m³ of overburden was being removed and transported away from this patch on daily basis.

Lahundia Patch : In this patch the total operations of overburden removal and coal extraction was outsourced to M/s Maha Lakshmi Infra Pvt. Ltd. 2m³ capacity hydraulic excavators six in numbers and 20t capacity dumpers 22 in number were deployed. On an average of 18,000m³ of overburden was being removed and transported away on daily basis from this patch

8.0 Following HEMM were deployed in different working benches of overburden and Coal in the open cast workings of the mine :

15/45

S. No	Machinery	Specifications	Population
1	Electric Rope Shovel	Bucket capacity- 20 m ³ & boom height- 20m	05
2	Hydraulic Shovel	Bucket capacity- 12 m ³ & boom height- 11m	03
3	Hydraulic shovel	Bucket capacity- 2m ³ & boom height-6.5m	06
4	Hydraulic Shovel	Bucket capacity 3m ³ & boom height-8.0m	08
5	IR -Drill machine	160 mm dia.	03
6	IR-Drill machine	250 mm dia.	04
7	BEML Dozer	D-155	08
8	Wheel dozer	-	04
9	Dumper	170 t	13
		100 t	23
		85 t	08
		20 t	68
10	Grader		05
11	Surface miner	900tph	01
12	Diesel Bouzer	-	03
13	Water tanker	28KL capacity	07
14	Crane	One 15 tonner & one 40 Tonner	2

9.0 Management obtained permission under Regulation 98(1)&(3) of the Coal Mines Regulations 1957 to remove overburden and extract coal by opencast method by the deployment of HEMM in conjunction with deep hole drilling and blasting vide this Directorate's letter no. S4/03/26/006/II-B/87/1182 dated 08.04.1987. Permission under regulation 161(1) & 168(5) of the CMR 1957 to use SMS explosive was also granted to management vide letter no. S3/010375/II-B/2007 dated 15.10.2007. Management were also granted permission to conduct blasting (controlled) within 300m upto 60m of dwellings/ villages at Rajmahal OCP under Reg. 170(IB) & Reg. 170(1A) of the CMR 1957 vide letter no. S3/010375/II-B/170(1A)&170(1B)(b)/2014/1672 dated 23.07.2014.

10.0 Manager of the mine was assisted by one safety officer, 23 asst. managers, 18 overman and 17 Sirdar in supervision of the mine.

11.0 **Inspection:** Accompanied by Sri M. K. Rao, Agent, Sri P. Kumar, Manager, Sri B.P.Das Surveyor and other officials of the mine, I, inspected the workings of Lahundia patch (Contractual) and Daharnangi patch (Departmental patch).

The size of the quarry being worked at Lahundia patch was 380m(NS) X 240m (EW) X 40 m (depth). Quarry operations were progressing in NW direction. Overburden consisted of 7m- 9m of alluvium soil beneath which hard rock existed. There were 03 benches in overburden varying in height from 4 m to 8m and width varying from 6m to 28m where as in coal there were 02 benches varying in height from 8m to 14m and width thereof varying from 6m to 18m. six nos. of 2m³ hydraulic excavators and 22nos. of 20t capacity dumpers were engaged in this patch for loading and transportation of overburden away from this patch. At present this patch is not producing coal and top overburden benches were being formed by removing overburden. All the operations at this patch were out sourced to M/s Maha Lakshmi Infra Pvt. Limited.

At Dahatrnangi patch mining operations were (overburden removal and coal production) being carried out departmentally by the deployment of HEMM. The size of the quarry being worked at this patch was measuring about 620m (EW) X 280m (NS) X 62m depth There were 3 benches on overburden varying in height from 15m to 23m and width varying from 8m to 42m where as in coal there was a single bench of height 8m and width varying from 6m -18m. High capacity HEMM were deployed departmentally at this patch for the removal of overburden and coal production.

16/45

The following contraventions of the Coal Mines Regulations, 1957 were observed during the course of inspection:

Regulation 98(1)& (3) read with the permission letter No.S4/1182 dated 8.4.1987:

- (i) In Lahundia patch open cast workings, the sides were not kept adequately benched. Height of bench in coal in flush with overburden between the grids 246000N, 245900N & 189750E, 190000E varied from a minimum of 8m to as much as 15m as against the permitted height of 8m (maximum reach of excavator deployed) for a horizontal distance of about 120m. No men or machines were found deployed at the toe of the high bench as above. Formation of benches shall be done from top downwards in accordance with the permission.
- (ii) In Dharnangi patch open cast working, the sides were not kept adequately benched. Height of bench in coal in flush with overburden between the grids 243600N, 243700N & 188150E, 188250E was found upto 25m as against the permitted height of 15m (Maximum reach of excavator deployed) for a horizontal distance of about 80m. Formation of the benches shall be done from top downwards.
- (iii) Two nos. of hydraulic excavators were found deployed within a radius of 15m of each other at 2nd bench of overburden in Lahundia patch.
- (iv) Width of the haul road leading to 2nd bench in overburden in Lahundia patch was found less than three times the width of the dumper plying over it.

Reg. 151 & 154 read with DGMS Cir.(Legis)No.1 of 1976: Adequate general lighting was not found provided at overburden dump yard situated on the NE of the Daharnangi patch and the same was not commensurate with the standards prescribed. A fresh illumination survey shall be carried out and the findings shall be reported to this Directorate at the earliest.

Reg.36/113: There was a shortage of at least 08 nos. of Mining Sirdar in the mine.

Reg.34: There was a shortage of at least 14 nos. of overman in the mine.

Reg. 112(1)(a): The top edge of the open cast workings along its periphery at Lahundia patch were not kept securely fenced.

Rule6 of VTC Rules, 1966: All the persons employed by the contractor were not imparted practical training before such employment. Only 343 persons were provided training as against the target of 600 persons.

Rule 29B of the Mines Rules 1955: Periodical Medical examination of all the persons employed in the mine was not conducted as per the requirement. Only 96 persons have undergone PME against the target of 200 in case of contractual persons and 124 persons have undergone PME against the target of 300 persons in case of departmental persons for the year 2014.

Management is being suitably addressed.

डॉ. नियाजी 11/8/2014
(मो० नियाजी)
खान सुरक्षा उपनिदेशक
सीतारामपुर क्षेत्र संख्या-3

इस निरीक्षण से पूर्व इस खदान का निरीक्षण सर्वश्री उत्पल साहा, खान सुरक्षा उप महानिदेशक, श्री यू. के. शर्मा, निदेशक, एम. डी. मिश्रा, उप निदेशक. सी० पलानीमलै, उप निदेशक (विद्युत) एवं मो० नियाजी, उप निदेशक क्षेत्र सं० 3, सीतारामपुर द्वारा दिनांक 06.02.2014 को किया गया था।

निदेशक / उपमहानि. / महानि. कृपया देखें / रिकार्ड करें।

फाइल के लिए नोट

खान का नाम	:	राजमहल ओ०सी०पी०
मालि का नाम	:	मेसर्स ई. सी. एल
अभिकर्ता का नाम	:	श्री एम० के० राव
प्रबन्धक का नाम	:	श्री पी० कुमार
निरीक्षण अधिकारी	:	मो० नियाजी, उप निदेशक क्षेत्र सं० 3
निरीक्षण दिनांक	:	03. 04. 2014 (अपराह्न)

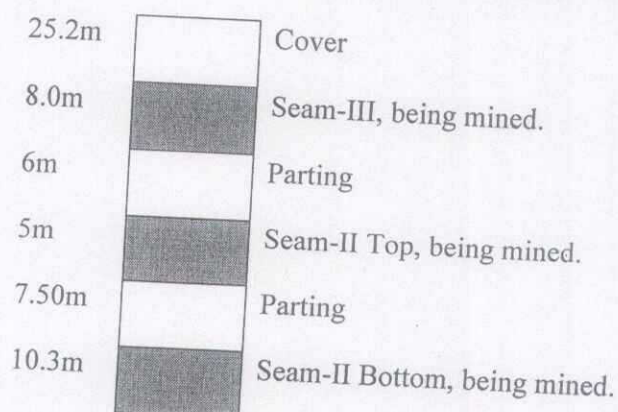
विषय:—आंशिक निरीक्षण।

- 1.0 While in the area I, called at the mine for the inspection of open cast workings of Rajmahal OCP. Sri M.K. Rao. Agent. Sri P. Kumar, Manager, Sri namdan Kumar, Surveyor and other officials of the mine accompanied me during the course of inspection.
- 2.0 Rajmahal Opencast Project of M/s Eastern Coalfields Ltd; situated in Godda district of Jharkhand State was started in the year 1987 and it was located at a distance of about 210 km from Sitarampur Zonal/Regional office. Total leasehold area of the mine was 1978 Ha. The mine operates round the clock in three different shifts, each of eight hours duration and produces an average of about 41,000 t of coal and excavates about 75000m³ of overburden per day with an average daily employment of 1664 persons.
- 3.0 Rajmahal OCP lies within Lalmatia exploration block which covers on an area of about 15 sq. km. Eight persistent coal horizons of barakar formations have been identified in this block. The seams within the leasehold area in the ascending order are I, II(bottom), II(top), III, IV, IX, X and XI. The seams II(bottom), II(top), III are highly interlaced in nature within the leasehold area. More than 95% of reserves in this block occurs in II(bottom), II(top) and III seams along with their various combinations. All the seams in-crops in the leasehold area under a thick alluvium cover of 15m to 30m thick. The top III seam having thickness about 2m to 10m is in-cropping at a depth of cover about 25m. The next underlying seam-II top, having thickness about 7m to 9m, occurred at a parting of 4 to 6m from seam-III and seam -II bottom having thickness of about 8m to 17m occurred at a parting of about 6-8m from seam-II top. General dip of all the seams is 1 in 20 due S 30° E.
- 4.0 Surface features of the mine consists of 7 no.s of small water tanks within the leasehold area, water garland drain situated along East-West on the South side of the property, farakka assisted railway siding (for coal transportation to power plant) was situated on the North and on the East Chotasimra, Bhadota, Abhitola and Bathantola villages, on the West Taljahari village and on the South Chhotabhouri village were situated.

5.0 17 no.s of faults have been postulated within the leasehold area. Among these six South-wards heading faults, namely F5, F6, F8, F10, F13 and F15 are of major magnitude. The details were as below:

<u>Name of fault</u>	<u>Throw</u>	<u>Amount of throw</u>
F5	up throw	5m
F6	down throw	15m
F8	down throw	60m
F10	down throw	25m
F13	down throw	40m
F15	up throw	10m

6.0 Section as revealed by bore hole No.RJH-21 is given below:



7.0 Rajmahal OCP was being worked in three patches namely RCML patch, Daharnangi patch and Lahundia patch.

RCML patch: In this patch removal of overburden and extraction of coal was done contractually by M/s RCML. 2m³ capacity hydraulic excavators of Hitachi make eight in number, 20t capacity dumpers of Volvo make 24 in nos. and one Writgen make Surface miner having capacity to produce 900tph were deployed in this patch. On an average 20,000m³ of overburden and 4,500 t of coal was being produced on daily basis from this patch.

Daharnangi Patch: In this patch removal of overburden and extraction of coal was being done departmentally by deployment of 10m³ and 20m³ capacity electric rope shovels and transportation was done by 170 t, 100t & 85 t capacity dumpers. On an average of 35,000m³ of overburden and 22,000 t of coal was being produced on daily basis from this patch.

Lahundia Patch : In this patch the total operations of overburden removal and coal extraction was outsourced to M/s Maha Lakshmi Infra Pvt. Ltd. 2m³ capacity hydraulic excavators six in numbers and 20t capacity dumpers 22 in number were deployed. On an average of 20,000m³ of overburden and 13,000 t of coal was being produced on daily basis from this patch.

8.0 Following HEMM were deployed in different working benches of overburden and Coal in the open cast workings of the mine :

No	Machinery	Specifications	Population
1	Electric Rope Shovel	Bucket capacity- 20 m ³ & boom height- 20m	05
2	Hydraulic Shovel	Bucket capacity- 12 m ³ & boom height- 11m	03
3	Hydraulic shovel	Bucket capacity- 2m ³ & boom height-6.5m	06
4	Hydraulic Shovel	Bucket capacity 3m ³ & boom height-8.0m	08
5	IR -Drill machine	160 mm dia.	03
6	IR-Drill machine	250 mm dia.	04
7	BEML Dozer	D-155	08
8	Wheel dozer	-	04
9	Dumper	170 t	13
		100 t	23
		85 t	08
		20 t	68
10	Grader		05
11	Surface miner	900tph	01
12	Diesel Bouzer	-	03
13	Water tanker	28KL capacity	07
14	Crane	One 15 tonner & one 40 Tonner	2

9.0 Management obtained permission under Regulation 98(1)&(3) of the Coal Mines Regulations 1957 to remove overburden and extract coal by opencast method by the deployment of HEMM in conjunction with deep hole drilling and blasting vide this Directorate's letter no. S4/03/26/006/II-B/87/1182 dated 08.04.1987. Management were also granted permission to conduct blasting (controlled) within 300m upto 100m of dwellings under Reg. 170(IB) & Reg. 170(1A) of the CMR 1957 vide letter no. S3/010375/VII-A/05/1893 dated 17.11.2005. Permission under regulation 161(1) & 168(5) of the CMR 1957 to use SMS explosive was also granted to management vide letter no. S3/010375/II-B/2007 dated 15.10.2007.

10.0 Manager of the mine was assisted by one safety officer, 23 asst. managers, 18 overman and 17 Sirdar in supervision of the mine.

11.0 **Inspection:** Accompanied by Sri M. K. Rao, Agent, Sri P. Kumar, Manager, Surveyor, Sri Manish Kumar, (GM, RCML) , Sri A.K. Sinha, [Manager, RCML] and other officials of the mine, I, inspected the workings of RCML patch (Contractual patch).

The size of the quarry being worked by RCML was 380m(EW) X 290m (NS) X 57 m (depth). Quarry operations were progressing in South-East direction towards the mine boundary. Overburden consisted of 7m - 18m soil beneath which hard rock existed. There were 05 benches in OB varying in height from 4 m to 10 m and width varying from 6m to 28m where as in coal there were 02 benches varying in height from 12m to 16m and width thereof varying from 6m to 18m. Surface miner having capacity to produce 900 tph was deployed at the 2nd coal bench of this patch for winning the coal and the coal produced was loaded into 20t capacity Volvo make dumpers with the help of pay loaders and the coal was transported through the trucks away to coal stock yard. Overburden removed at various benches in opencast workings was loaded and transported away to overburden dump yard with the help of HEMM.

20/45

The following contraventions of the Coal Mines Regulations, 1957 were observed during the course of inspection:

Regulation 98(1)& (3) read with the permission letter No.S4/1182 dated 8.4.1987, S4/629 dated 22.3.1996: In RCML patch open cast workings, the sides were not kept adequately benched. Height of bench in coal in flush with over burden between the grids 243760N, 243840N & 189200E, 189320E varied from a minimum of 8m to as much as 21m as against the permitted height of 8m (maximum reach of excavator deployed) for a horizontal distance of about 80m. No men or machine was found deployed at the toe of the high bench as above. Formation of benches shall be done from top downwards in accordance with the permission.

Reg. 123: Air at work places (haul roads, working overburden bench, Coal extraction bench, drilling site, etc..) where respirable dust was evolved, was not sampled and concentrations of respirable dust were not determined as required under the provisions of these Regulation.

Reg. 36 read with DGMS cir. 6/1975: Authorization was not found issued/granted by the mine manager for competent persons employed in RCML patch as required by these regulations.

Reg. 186: Contractual equipments were not tested for their roadworthiness by M/s ECL management and records therein were not maintained.

Reg. 170(1A) & 170(1B): Substantially built blasting shelter was not found provided for taking shelter during blasting operations in the open cast workings of RCML patch

Reg. 112(1)(a): The top edge of the open cast workings along its periphery were not kept securely fenced.

Rule 29B of the Mines Rules 1955: Initial Medical examination of all the persons employed by M/s RCML was not done. Only 49 persons have under gone IME out of the total employment of 168 persons.

Management is being suitably addressed.

मो. नियाजी 20/4/19
(मो० नियाजी)
खान सुरक्षा उपनिदेशक
सीतारामपुर क्षेत्र संख्या-3

21/45

मुली
21/4/15उत्पन्न साध
21/4/2015

महानिदेशक / उपमहानिदेशक / महानिदेशक कृपया देखें / रिकार्ड करें ।

Directorate General Of Mines Safety

Ministry of Labour & Employment

Government of India

532
16.4.15

Name of Mine	Rajmahal OCP
Name Of The Owner	S Chakraborty
Name Of The Agent	D K Nayak
Name Of The Manager	P kumar
Manager's Qualification	First Class
Name of Inspecting Officer	Md Niyazi
Designation Of IO	Deputy Director
Date of Inspection	09-04-2015

Purpose of InspectionFollow up Mine
Working**1.0 Mine Details**

Mine Code

11047

LIN

1517219762

1.1 Type of Mine

Mechanised OC

1.2 Mineral Mined

Coal

1.3 Production/day

35000 t

1.4 Employee With Employer

	Direct	Contractual	Total
Male	1768	752	2520
Female	165	0	165

1.5 Employee on the date of Inspection

	Direct	Contractual	Total
Male	752	322	
Female	131	0	

1.6 Hours of Works

Start Time:6:00 am

End Time:6:00 am

Rest Time:1

Weekly day of rest:

2.0 Contractor Details**2.1 Contractor Available** Yes**2.2 Name** R C ML**2.3 Present Address**

Line1: 10,comac street
 Line2: 18th floor, India House
 City: Kolkata
 Pin Code: 700017
 State: West Bengal
 District: Kolkata
 2.4 Return being filed No

3.0 Brief of the mine including permission(s) accorded

Rajmahal Opencast Project of M/s Eastern Coalfields Ltd; situated in Godda district of Jharkhand State was started in the year 1987 and it was located at a distance of about 210 km from Sitarampur Zonal/Regional office. Total leasehold area of the mine was 1978 Ha. Rajmahal OCP lies within Lalmatia exploration block. Eight persistent coal horizons of Barakar formations have been identified in this block. The seams within the leasehold area in the ascending order are I, II(bottom), II(top), III, IV, IX, X and XI. The seams II(bottom), II(top), III are highly interlaced in nature within the leasehold area. Rajmahal OCP was being worked in two patches namely RCML patch, Deep mining Zone. At RCML patch removal of overburden and extraction of coal was done contractually by M/s RCML. At Deep mining Zone removal of overburden and extraction of coal was being done departmentally.

4.0 Details of Inspection

4.1 Adequacy of supervision Yes
 4.2 Area Inspected DeepMining Zone & RCML patch

5.0 Observations

Management obtained permission under Regulation 98(1)&(3) of the Coal Mines Regulations 1957 to remove overburden and extract coal by opencast method by the deployment of HEMM in conjunction with deep hole drilling and blasting vide this Directorate's letter no. S4/03/26/006/II-B/87/1182 dated 08.04.1987. Permission under regulation 161(1) & 168(5) of the CMR 1957 to use SMS explosive was also granted to management vide letter no. S3/010375/II-B/2007 dated 15.10.2007. Management were also granted permission to conduct blasting (controlled) within 300m upto 60m of dwellings/ villages at Rajmahal OCP under Reg. 170(IB) & Reg. 170(1A) of the CMR 1957 vide letter no. S3/010375/II-B/170(1A)&170(1B)(b)/2014/1672 dated 23.07.2014. Accompanied by Sri A. Pandey, General Manager, Rajmahal Area, Sri. D.K. Nayak, Agent, and Sri P. Kumar, Manager studied the mine plans and Inspected the opencast workings of M/s RCML (out sourced) Patch and illumination of haul roads and workings on 9.4.2014 in the evening and inspected the opencast workings of Deep mining Zone (departmental patch) on 10.4.2014 in the forenoon.

5.1 Additional Information

6.0 Contravention Observed

Yes

6.1 Details of Contravention

Regulation 98(1)& (3) read with the permission letter No.S4/1182 dated 8.4.1987:

- (i) Dumpers were found plying on the haul road situated at the toe of high wall in Deep Mining Zone (departmental patch) on SW part of the quarry between the grids 243500N, 244400N & 188000E, 188500 E. Haul road as above shall not be used and

the same shall be diverted away from the toe of high wall and the bench height in the area shall be reduced and benches shall be formed in accordance with the permission by back filling the de-coal area/removing the overburden from top downwards.

- (ii) Berms of adequate width and height were not provided at the benches in Deep Mining Zone in coal as well as in overburden benches.
- (iii) Width of the haul road leading to coal bench in M/s RCML (out sourced) patch was less than three times the width of the dumper plying over it.
- (iv) Height of the waste dumps situated on the west part of M/s RCML patch was observed to the tune of 32m. Dump height as above shall be reduced by forming benches so as to ensure the stability of the waste dumps.

7.0 Address of the Mine

Line1:	Lalmatia
Line2:	Barasimri
State:	Jharkhand
District	Godda
Pin Code	814165

8.0 Address of the Owner

Tashil	Desergarh
Post Office	Desergarh
State:	West Bengal
District	Burdwan
Pin Code	713333
E-mail	eclicos17a@gmail.com
Phone	03412520546
Mobile	9434721044

9.0 Management's representatives

9.1 Name	A Pandey
9.2 Designation	General Manager

10.0 Recommendation(s) :

10.1 Improvement Notice	No
10.2 Prohibitory	No
10.3 Stoppage Of Work	No
10.4 Withdrawal Of Permission(s)	No
10.5 Contravention Letter	Yes

24/45

Details of Contravention Letter

Reg. 151 & 154 read with DGMS Cir.(Legis)No.1 of 1976: Adequate general lighting provided at working benches in M/s RCML patch, at overburden dump yard of Lahundia patch was not commensurate with the standards prescribed. A fresh illumination survey shall be carried out and the findings shall be reported to this Directorate.

Reg.112(5)(a)&(b): The discontinued workings of Lahundia patch (presently being back filled) were not kept fenced by a structure of permanent character to prevent persons from falling into or entering the same.

11.0 Remark

Contraventions observed during the course of inspection are being addressed to the management for rectification.

12.0 Submitted Date

16-04-2015 AM

प्र- नियाजी
(मो० नियाजी) 16/4/15

खान सुरक्षा उप-निदेशक
सीतरामपुर क्षेत्र संख्या 3

Directorate General Of Mines Safety
 Ministry of Labour & Employment
 Government of India

1076
28/9/15

Name of Mine	Rajmahal OCP
Name of the Owner	S Chakraborty
Name of the Agent	D Nayak
Name of the Manager	P Kumar
Manager's Qualification	First Class
Name of Inspecting Officer	Md Niyazi
Designation of IO	Deputy Director
Date of Inspection	23-09-2015

Purpose of Inspection

Follow up Mine Working

1.0 Mine Details

Mine Code	11047
LIN	1517219762
1.1 Type of Mine	Coal Opencast
1.2 Mineral Mined	Coal
1.3 Production/day	18000 t
1.4 Employee With Employer	

	Direct	Contractual	Total
Male	1760	296	2056
Female	159	0	159

1.5 Employee on the date of Inspection

	Direct	Contractual	Total
Male	802	104	906
Female	121	0	121

1.6 Hours of Works

Start Time: 8:00 am

Rest Time: 1

End Time: 8:00 am

Weekly day of rest:

2.0 Contractor Details

2.1 Contractor Available Yes
 2.2 Name RCML (JV)
 2.3 Present Address

Line1: Industry House
 Line2: 10, Camac Street, 18th Floor
 City: Kolkata
 Pin Code: 700017
 State: West Bengal
 District: Kolkata

4 Return being filed Yes

3.0 Brief of the mine including permission(s) accorded

Rajmahal Opencast Project of M/s Eastern Coalfields Ltd; situated in Godda district of Jharkhand State was started in the year 1987 and it was located at a distance of about 220 km from Sitarampur Zonal/Regional office. Total leasehold area of the mine was 1978 Ha. Rajmahal OCP lies within Lalmatia exploration block which covers on an area of about 15 sq. km. Eight persistent coal horizons of Barakar formations have been identified in this block. The seams within the leasehold area in the ascending order are I, II(bottom), II(top), III, IV, IX, X and XI. The seams II (bottom), II(top), III are highly interlaced in nature within the leasehold area.

Rajmahal OCP was being worked in two patches namely RCML patch and Deep mining Zone. At RCML patch removal of overburden and extraction of coal was done contractually by M/s RCML. 2m³ capacity hydraulic excavators of Hitachi make eight in number, 20t capacity dumpers of Volvo make 24 in nos.

4.0 Details of Inspection

4.1 Adequacy of supervision

Yes

4.2 Area Inspected

RCML Patch Open
Cast workings

5.0 Observations

At Deep Mining Zone removal of overburden and extraction of coal was being done departmentally by deployment of 10m³ and 20m³ capacities electric rope shovels and transportation was done by 170t, 100t & 85t capacity dumpers. An average of 18000t of coal was being produced and 31,000m³ of overburden was being removed from the open cast workings of the mine.

Management obtained permission under Regulation 98(1) & (3) of the Coal Mines Regulations 1957 to remove overburden and extract coal by opencast method by the deployment of HEMM in conjunction with deep hole drilling and blasting vide this Directorates letter no. S4/03/26/006/II-B/87/1182 dated 08.04.1987. Permission under regulation 161(1) & 168(5) of the CMR 1957 to use SMS explosive was also granted to management vide letter no. S3/010375/II-B/2007 dated 15.10.2007. Management were also granted permission to conduct blasting (controlled) within danger zone but beyond 60m of dwellings /structures at Rajmahal OCP under Reg. 170(IB) & Reg. 170(1A) of the CMR 1957 vide letter no. S3/010375/VII-B/2015/1035 dated 22.06.2015.

Accompanied by the Agent manager and Surveyor of the mine on 22.09.2015 at 8:20 PM inspected the haul roads, OB dumps and workings of Deep Mining Patch and checked the illumination provided at the open cast workings of the mine. Due to continuous rain at the mine loading and transportation was suspended at the mine at the time of inspection of the mine. On 23.09.2015 accompanied by the Agent, manager, Surveyor, and Sri Sinha, In-charge of M/s RCML studied the mine plans checked blasting records in managers office and inspected the workings of RCML patch.

5.1 Additional Information

6.0 Contravention Observed

Yes

6.1 Details of Contravention

Reg. 58 & 59:

- (1) Overburden dumps were not clearly marked on the working plan with relevant RLs
- (2) 60 m blast restricted line around the villages (structures/ dwellings) situated at the Open cast workings of the mine was not marked on the plan.
- (3) The Working Plan of the mine was not made and kept up to date.

Regulation 98(1)& (3) read with the permission letter No.S4/1182 dated 8.4.1987, S4/629 dated 22.3.1996:

- (1) In RCML patch, the sides of the open cast workings were not kept adequately benched. Height of bench in coal in flush with over burden between the grids 244500N, 188500E & 244500N, 190000E varied between 21m to as much as 40m as against the permitted height of 8m (maximum reach of excavator deployed) for a horizontal distance of about 120m. No men or machine were found deployed at the toe of the high bench as above. The area is already de-coaled and the same shall be back filled at the earliest in accordance with the permission.
- (2) Haul road situated at the toe of OB bench of height 18m-20m along E-W on the north part of the RCML patch workings shall be shifted away for a distance at-least equal to the height of the OB bench. The bench height in the area shall be reduced in accordance with the permission from top down words.

Reg. 151 & 154 Read with DGMS Cir no. 1/1976 : Illumination along the haul road leading to 3rd OB bench in Deep Mining Zone between the grids 244000N, 188500 & 244000N, 188800E was found inadequate. Fresh illumination survey shall be conducted at the mine. The dark zones in the workings of the mine shall be adequately illuminated as per the standards prescribed under these regulations.

Reg. 112(1)(a): The top edge of the open cast workings along its periphery at RCML patch were not kept securely fenced.

7.0 Address of the Mine

Line1:	Lalmatia
Line2:	Barasimri
State:	Jharkhand
District	Godda
Pin Code	814165

8.0 Address of the Owner

Tashil	Desergarh
Post Office	Sanctoria
State:	West Bengal
District	Burdwan
Pin Code	713333
E-mail	eclicos17a@gmail.com
Phone	03412520549
Mobile	9434721044

9.0 Management's representatives

9.1 Name	D Nayak
9.2 Designation	Agent

10.0 Recommendation(s) :

10.1 Improvement Notice	No
10.2 Prohibitory	No
10.3 Stoppage Of Work	No
10.4 Withdrawal Of Permission(s)	No
10.5 Contravention Letter	Yes

Details of Contravention Letter

Reg. 190 read with 9th & 10th Safety Conference in Mining: Safety management Plan is not being periodically reviewed. An up to date SMP with its status report inclusive of principal hazard of Strata failure shall be submitted to this Directorate at the earliest.

Rule 29P of The Mines Rules 1955: Annual Return in form-T was not submitted for the year 2014 to this Directorate.

11.0 Remark

Contraventions pointed out during the course of inspection are being addressed to the management for compliance.

12.0 Submitted Date

27-09-2015

PM

मो. निवाजी 28/9/2015
(मो० निवाजी)
खान सुरक्षा उपनिदेशक,
सीतारामपुर क्षेत्र संख्या-III.

29/45

निदेशक / उपमहानि. / महानि. कृपया देखें / रिकार्ड करें।

Directorate General Of Mines Safety

Ministry of Labour & Employment
Government of India

Name of Mine

Name Of The Owner

Name Of The Agent

Name Of The Manager

Manager's Qualification

Name of Inspecting Officer

Designation Of IO

Date of Inspection

Rajmahal OCP, VTC

Director Technical Op

D K Nayak

P Kumar

First Class

Md Niyazi

Deputy Director

10-05-2016

Purpose of Inspection

Follow up Mine
Working

1.0 Mine Details

Mine Code

LIN

011047

1517219762

1.1 Type of Mine

Coal Opencast

1.2 Mineral Mined

Coal

1.3 Production/day

35000 t

1.4 Employee With Employer

Direct

Contractual

Total

Male

1737

366

2103

Female

163

0

163

1.5 Employee on the date of Inspection

Direct

Contractual

Total

Male

764

146

910

Female

132

0

132

1.6 Hours of Works

Start Time: 8:00 am

Rest Time: 1

End Time: 8:00 am

Weekly day of rest:

2.0 Contractor Details

2.1 Contractor Available Yes

2.2 Name RCML JV

2.3 Present Address

Line1: Industry House

Line2: 10 Camac street, 18 floor

City: Kolkata

Pin Code: 700017

State: West Bengal

District: Kolkata

2.4 Return being filed Yes

3.0 Brief of the mine including permission(s) accorded

Rajmahal Opencast Project of M/s Eastern Coalfields Ltd; situated in Godda district of Jharkhand State was started in the year 1987 and it was located at a distance of about 220 km from Sitarampur Zonal/Regional office. Total leasehold area of the mine was 1978 Ha. Rajmahal OCP lies within Lalmatia exploration block which covers on an area of about 15 sq. km. Eight persistent coal horizons of Barakar formations have been identified in this block. The seams within the leasehold area in the ascending order are I, II(bottom), II(top), III, IV, IX, X and XI. The seams II (bottom), II(top), III are highly interlaced in nature within the leasehold area. Rajmahal OCP is being worked in two patches namely RCML patch and Departmental patch. At RCML patch removal of overburden and extraction of coal was done contractually by M/s RCML.

4.0 Details of Inspection

4.1 Adequacy of supervision

Yes

4.2 Area Inspected

Opencast workings,
plans and Records and
CHP

5.0 Observations

OB removal is being carried out by the deployment of 2m³ capacity hydraulic excavators of Hitachi make eight in number, 20t capacity dumpers of Volvo make 24 in nos. and coal is being extracted by wirtgen make surface miner at the rate of 600 tph and the same is being loaded into trucks by the deployment of front end loaders and transported away to the coal stock yard. An average of 18000 t of coal and 70000 m³ of OB is being removed from this patch. At Departmental patch removal of overburden and extraction of coal was being done departmentally by deployment of 10m³ and 20m³ capacities electric rope shovels and transportation was done by 170 t, 100 t & 85 t capacity dumpers. An average of 17000 t of coal was being produced and 20,000m³ of overburden was being removed from this patch. Management obtained permission under Regulation 98(1) & (3) of the Coal Mines Regulations 1957 to remove overburden and extract coal by opencast method by the deployment of HEMM in conjunction with deep hole drilling and blasting vide this Directorates letter no. S4/03/26/006/II-B/87/1182 dated 08.04.1987. Permission under regulation 161(1) & 168(5) of the CMR 1957 to use SMS explosive was also granted to management vide letter no. S3/010375/II-B/2007 dated 15.10.2007. Management were also granted permission to conduct blasting (controlled) within danger zone but beyond 60m of dwellings /structures at Rajmahal OCP under Reg. 170(IB) & Reg. 170(1A) of the CMR 1957 vide letter no. S3/010375/VII-B/2015/1035 dated 22.06.2015

5.1 Additional Information

Contraventions observed are being addressed to the management for compliance.

6.0 Contravention Observed

Yes

6.1 Details of Contravention

I accompanied Sri N Rajak, Director of Mines Safety and inspected the mine. On 10.05.2015 in the evening we carried out the inspection with respect to illumination at the haul roads, and workings benches in coal and OB. On 11.05.2015 in the forenoon studied mine plans, checked records gathered general information and inspected the mine workings of M/s RCML patch and on 12.05.2015 in the forenoon inspected the CHP. During the course of inspection agent manager, operations in-charge of M/s RCML, Colliery Engineer, and Surveyor of the mine accompanied us.

7.0 Address of the Mine

Line1:
Line2:
State:
District
Pin Code

Lalmatia
Barasimri
Jharkhand
Godda
814165

8.0 Address of the Owner

Tashil
Post Office
State:
District
Pin Code
E-mail
Phone
Mobile

Deserghar
Sanctoria
West Bengal
Burdwan
713333
dtp.easterncoal@nic.in
03412520546
9434721044

9.0 Management's representatives

9.1 Name

D K Nayak

9.2 Designation

Agent

10.0 Recommendation(s) :

10.1 Improvement Notic

No

10.2 Prohibitory

No

10.3 Stoppage Of Work

No

10.4 Withdrawal Of Permission(s)

No

10.5 Contravention Letter

Yes

Details of Contravention Letter

Regulation 98(1) & (3) read with the permission letter No.S4/1182 dated 8.4.1987 :

- (1) In RCML patch, the sides of the open cast workings were not kept adequately benched in overburden. Height of overburden bench (II & III) on the South – Eastern part of the quarry between the grids 189750E, 243750N and 190250E, 244000N was observed to the tune of 14m.as against the permitted height of 8m for a horizontal distance of about 75m. Formation of benches in the above area shall be made from top downwards in accordance with the permission.
- (2) Berms of adequate width and height were not formed along the edge of coal bench in RCML patch where coal was being gathered and being loaded with front end loaders.
- (3) Operator of surface miner was not fully aware of SOP and the same was not displayed in the cabin of surface miner.
- (4) Operator seat (height adjustment) was not positioned for a full view/ rear view of the operator when he is operating the surface miner.
- (5) Safety caution ribbon/ barricade was not provided to clearly distinguish between the operating zones of surface miner cutting area and coal gathering and loading area to ensure safety of men and machineries operating in the coal bench in RCML patch

11.0 Remark

Reg. 151 & 154: (1) General lighting provided at the OB bench and at coal benches including the haul roads leading to coal bench in RCML patch was found inadequate.

Reg. 123: (1) Dust suppression arrangements provided in surface miner were not made

interlocked with the cutting drum of surface miner to ensure prevention of dust getting air borne at the cutting edge.

(2) Wet drilling arrangements provided with 152mm dia drillings were found defunct for 3 nos. of drill machines.

Reg.120/190: (1) Accumulated fine coal dust was found below the electrical cable tray at the wagon loading point of Silo no. 1

(3) Suitable fire extinguishers were not provided at the prominent places at the silo operating cabin and at the Electrical installations at the silos.

Rule 29B of Mines rules 1955: IME of all the persons employed by contractor was not done. 210 persons underwent IME out of total of 366

14-05-2016
AM

12.0 Submitted Date

मो. नियाजी 14/5/2016
(मो० नियाजी)
खान सुरक्षा उप निदेशक
सीतारामपूर क्षेत्र संख्या III

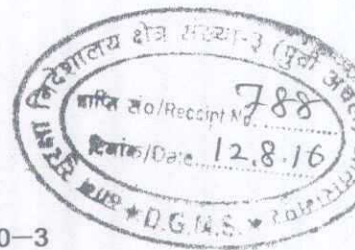
33/45

प्री निरीक्षण (अंश निरीक्षण) श्री नारायण रजक, निदेशक एवं मो० नियाजी, उपनिदेशक, सीतारामपुर क्षेत्र-३, द्वारा दिनांक 10/11/12.5.2016

Uda 17/8/2016
उपमहानिदेशक/महानिदेशक महोदय कृपया अवलोकन/रिकॉर्ड हेतु

निरीक्षण प्रतिवेदन

खान का नाम : राजमहल ओसीपी कोलियरी
मालिक का नाम : मेसर्स ई. सी. एल.
अभिकर्ता का नाम : श्री डी के नायक
प्रबन्धक का नाम : श्री प्रमोद कुमार, FCC
निरीक्षण अधिकारी : श्री निरंजन शर्मा, निदेशक, क्षेत्र सं०-३
निरीक्षण दिनांक : 10.8.2016 (AN) & 11.8.2016 (FN)



Sub: PI/ OC

- 1.0 I called at the mine on 10.8.16 (AN) to inspect the mine workings of Rajmahal OCP Colliery of M/s Eastern Coalfields Ltd. On 10.8.12 (AN) & 11.8.12 (FN). S/Shri D.K. Nayak (Agent), S.R.P. Verma (Area Safety Officer), Pramod Kumar (Manager), S.P. Barnwal (Safety Officer) and B.P. Das (Surveyor) were present during the course of inspections and they briefed me about the mine workings & accompanied me during the course of inspections.
- 2.0 **Brief description of the mine:**
- 2.1 Rajmahal Opencast mine located in Godda District of Jharkhand state at a distance of about 260km from this office. Rajmahal Opencast project having coal of Barakar formation belonging to lower Gondwana region found to contain huge quantity of lower grade coal. Rajmahal OCP Colliery of M/s Eastern Coalfields Ltd. (M/s ECL) is situated in Godda district of Jharkhand State. The mine operations commenced in the year 1987. Total leasehold area of the mine was 1978 hectare. Rajmahal OCP Colliery lies within Lalmatia exploration block which covers on an area 5 sq. km. Eight (8) coal horizons (seams) of Barakar formations have been identified in this block. These seams within the leasehold area in the descending order are XI, X, IX, IV, III, II (Top), II (Bottom) and I seams.
- 2.2 Rajmahal OCP Colliery was being worked in three patches namely, (i) RCML patch, (ii) Deep Mining Zone patch and (iii) Mahalaxmi patch. At RCML patch, removal of overburden (OB) and extraction of coal seams was done contractually by M/s RCML, Kolkata (WB). At Mahalaxmi patch OB was removed by M/s MIPL, Rajkot (Gujarat). At Deep Mining Zone patch OB removal & extraction of coal seams was done departmentally.
- 2.3 Shri K.S. Patra, Director (Personal) is the nominated owner of M/s ECL. Shri S.K. Singh was GM (I/C) of Rajmahal Area. Shri D.K. Naik, GM (operations) was appointed as Agent of the mine. Shri Pramod Kumar, holding of 1st Class Mine Manager's Certificate of Competency (FCC) was appointed as Manager of the mine. Manager was assisted by one Safety Officer (FCC), 23 Assistant Managers (FCC- 11 nos. + SCC- 12 nos.), Overman (26 nos.) and mining Sirdars (18 nos.) At the mine, total 1900 persons (male - 1735 + female - 165) were employed. The contractors in mine i.e. M/s MIPL and M/s RCML employed 118 persons and 385 persons, respectively. The mine was worked round the clock in three shifts basis and shift timings were 1st shift (06.00 hr to 14.00 hr), 2nd shift (14.00 hr to 22.00 hr) & 3rd shift (22.00 hr to 06.00 hr, next day).
- 2.4 A hypothetical Section of strata through bore hole No.RJH-21 shown as below

surface		
25.2m		Cover
8.0m		Seam-III, being mined.
6m		Parting
5m		Seam-II Top being mined
7.50m		Parting
10.3m		Seam-II Bottom being mined

3.0 Details of permission granted:

3.1 Management have obtained various permission to extract coal and removal of overburden under Regulation 98, 100 and 105 of Coal Mines Regulation, 1957 for working the quarry with Dip Hole Blasting and deploying HEMM vide this office letter Nos.(a) S4/03/26/006/II-B/87/1182 dated 08.04.1987, (b) S4/010375/II-B/9/629 dated 22.03.1996 and (c) S4/03/26/006/II-B(87)/1182 dated 08.4.1987 obtained a permission under Regulation 98(1) & (3) of the Coal Mines Regulations, 1957 for working the quarry with deep hole blasting and HEMM and also under regulation 100(1) of the Coal Mines Regulations, 1957 for extraction of pillars in No.II seam bottom (Top section) by opencast method in Rajmahal opencast Project. Also permission to work the OC within danger zone but beyond 60m of the village & structures was also obtained from this Directorate under regulations 170(1A) & 170(1B)(b) to use site mixed slurry explosive to conduct Dip Hole Blasting within the lease hold area of the mine was also obtained vide letter No.S4/ 010375/ II-D/95/173 dated 20.01.1995.

4.0 **Details of machinery at the mine:** Excavators of 20m³, 10m³ and 5m³ bucket capacity with dumpers of 170T, 100T & 80T with ancillary equipment like drills, dozers were deployed in the departmental patch of the mine. Loading and transportation of coal from face to CHP was being done by small excavators and tippers of 20 tonne deployed through contractors. In contractual patch HEMM owned & maintained by contractors were worked. Management have prepared Safe Operating Procedures (SOP) for use & operations of various HEMMs of the mine.

5.0 Inspections and observations:

(A) **10.8.2016 (AN):** I accompanied by S/Shri D.K. Nayak (Agent), S.R.P. Verma (Area Safety Officer), Pramod Kumar (Manager), S.P. Barnwal (Safety Officer) and B.P. Das (Surveyor) first collected the general information & checked the mine plans and later went to inspect the Deep Mining Zone & RCML contractual patch for checking the status of illumination at the OC mine.

Observations: The mine surveyor was assisted by 3 more surveyors. Exemption U/R 35(3)(b) of the CMR, 1957 vide this Directorate's letter No.S3/010357/II-B/2003/173 dated 05.02.2003 to maintain four (4) surveyors at the mine was obtained. The statutory mine plans were maintained in RF 1:4000 and exemption U/R 58(1)(d) was obtained vide No. S4/03/26/II-B/91 dated 19.4.1991. Plans were maintained in general and were last updated on 01.8.2016 Following contraventions under the provisions of the CMR, 1957 were observed during the course of inspection and were noted in the spot violation register:

35/45

Regulation 98(1) & (3) read with P/L. No. S4/87/1182 dated 08.4.1987:

- (i) The dumpers deployed in departmental & contractual workings were not provided with tail lights and side indicators.
- (ii) The Audio Visual Alarm (AVA) sound was not audible and found not more than the nearby machine or environment sound.
- (iii) Berms were not provided of adequate height and width. Berms shall be provided away from the edges of haul roads and benches.
- (iv) Sign Boards for traffic signals were not provided.

Regulation 151 & 154r/w DGMS (Legs.) Circular:

- (i) In RCML opencast patch haul road the illumination was not continuously provided. The lights were found defunct or damaged.
- (ii) The in-pit OB dump site of RCML patch near view point was not provided with illumination.

(B) **11.8.2016 (AN):** I accompanied by S/Shri D.K. Nayak (Agent), S.R.P. Verma (Area Safety Officer), Pramod Kumar (Manager), S.P. Barnwal (Safety Officer) and B.P. Das (Surveyor) went to inspect the Mahalaxmi (M/s MIPL-NKAS (JV) OC Patch workings and inspected the mine along periphery. The size of this contractual patch was 840m (E-W) x 450m (N-S) x 176m (Max. depth). Total 105 persons were deployed daily and 35 persons in the shift. HEMM (10 shovels & 25 dumpers and other m/cs) were deployed for formation of benches in OB from top down ward and removed OB (about 22000m³) was back-filled in the de-coaled area. Later I went to inspect the Group VTC of the mine. Permission to maintain a group VTC was accorded and last permission was granted (renewal) was vide this Directorate's letter No.S3/010357/VTC-18/941 dated 09.6.2015 and it was valid for a period of one year.

Observations: The mine surveyor was assisted by 3 more surveyors. Exemption U/R 35(3)(b) of the CMR, 1957 vide this Directorate's letter No.S3/010357/II-B/2003/173 dated 05.02.2003 to maintain four (4) surveyors at the mine was obtained. The statutory mine plans were maintained in RF 1:4000 and exemption U/R 58(1)(d) was obtained vide No. S4/03/26/II-B/91 dated 19.4.1991. Plans were maintained in general and were last updated on 01.8.2016. Following contraventions under the provisions of the CMR, 1957 were observed during the course of inspection and were noted in the spot violation register:

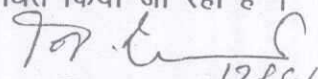
Regulation 98(1) & (3) read with P.L. No. S4/1182 dated 8.4.1987:

- (i) Sign Boards for code of Traffic Rules were not adequately provided along the haul road & near working places.
- (ii) Berms were not provided adequately & consistently along the Haul roads and on top OB benches worked.
- (iii) Details of machine (HEMM) and allowed for deployment in shift was not conveyed to shift In-charges in writing regarding its fitness and OK condition.
- (iv) Speed Boards were provided on the LMV road crossings near the haul road leading to the mine.

Rule 18 of Mines Vocational Training Rules, 1966:

- (i) Projection system & projector were not provided in the surface.
- (ii) Pantry facilities were not provided within the VTC.

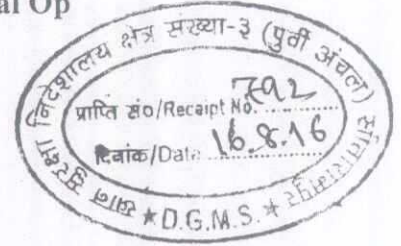
प्रबंधन को उपरोक्त उल्लंघनों की अनुपालन के लिए उल्लंघन पत्र संबोधित किया जा रहा है।


(निरंजन शर्मा) 12/8/16
खान सुरक्षा निदेशक
सीतारामपुर क्षेत्र संख्या-3

निदेशक / उपमहानि. / महानि. कृपया देखें / रिकार्ड करें ।
 23/8/2016 36/45

Directorate General Of Mines Safety
 Ministry of Labour & Employment
 Government of India

Name of Mine Rajmahal OCP, VTC
 Name Of The Owner Director Technical Op
 Name Of The Agent D Nayak
 Name Of The Manager P Kumar
 Manager's Qualification First Class
 Name of Inspecting Officer Md Niyazi
 Designation Of IO Deputy Director
 Date of Inspection 10-08-2016



Purpose of Inspection

1.0 Mine Details

Mine Code 011047
 LIN 1517219762
 1.1 Type of Mine Coal Opencast
 1.2 Mineral Mined Coal
 1.3 Production/day 30,000 t
 1.4 Employee With Employer

	Direct	Contractual	Total
Male	1752	296	2048
Female	151	0	151

1.5 Employee on the date of Inspection

	Direct	Contractual	Total
Male	790	118	908
Female	124	0	124

1.6 Hours of Works

Start Time:6:00 am
 Rest Time:1
 End Time:6:00 am
 Weekly day of rest:

2.0 Contractor Details

2.1 Contractor Available Yes
 2.2 Name RCML JV
 2.3 Present Address
 Line1: Industry House
 Line2: 10th, camec street, 18th Floor
 City: Kolkata
 Pin Code: 700017
 State: West Bengal
 District: Kolkata
 2.4 Return being filed Yes

3.0 Brief of the mine including permission(s) accorded

Rajmahal Opencast Project of M/s Eastern Coalfields Ltd; situated in Godda district of Jharkhand State was started in the year 1987 and it was located at a distance of about 220 km from Sitarampur Zonal/Regional office. Total leasehold area of the mine was 1978 Ha. Rajmahal OCP lies within Lalmatia exploration block which covers on an area of about 15 sq. km. Eight persistent coal horizons of Barakar formations have been identified in this block. The seams within the leasehold area in the ascending order are I, II(bottom), II(top), III, IV, IX, X and XI. The seams II (bottom), II (top), III are highly interlaced in nature within the leasehold area. Rajmahal OCP is being worked in two patches namely RCML patch and Departmental patch. At RCML patch removal of overburden and extraction of coal was done contractually by M/s RCML.

4.0 Details of Inspection

4.1 Adequacy of supervision

Yes

4.2 Area Inspected

Main sump, survey office, records

5.0 Observations

... Continued from Para 3.0

An average of 18000 t of coal and 70000 m³ of OB is being removed from this patch. At Departmental patch removal of overburden and extraction of coal was being done departmentally. An average of 13000 t of coal was being produced and 25,000m³ of overburden was being removed from this patch. Management obtained permission under Regulation 98(1) & (3) of the Coal Mines Regulations 1957 to remove overburden and extract coal by opencast method by the deployment of HEMM in conjunction with deep hole drilling and blasting vide this Directorates letter no. S4/03/26/006/II-B/87/1182 dated 08.04.1987. Permission under regulation 161(1) & 168(5) of the CMR 1957 to use SMS explosive was also granted to management vide letter no. S3/010375/II-B/2007 dated 15.10.2007. Management were also granted permission to conduct blasting (controlled) within danger zone but beyond 60m of dwellings /structures at Rajmahal OCP under Reg. 170(IB) & Reg. 170(1A) of the CMR 1957 vide letter no. S3/010375/VII-B/2015/1035 dated 22.06.2015

Enquiry:

1.0 Vide complaint letter no. nil dated 13.06.2016 (R.O dairy no. 642 dated 29.06.2016) Shri Arvind Jha, Union Representative Cum Secretary, District Congress Committee, Godda in a letter addressed to Dy. Director, DGMS Sitarampur had requested to enquire in to the incident of drowning of drill machine due to the irresponsible act of Management of Rajmahal OCP, M/s ECL; and a copy of the letter was endorsed to Director, DGMS, Dhanbad.

2.0 DDG, EZ (Z.O dairy no. 1738 dated 29.06.2016) had marked above complaint to the Director, Reg. no.3 for necessary action.

3.0 Director vide this office letter no. S3/010359/2016/958 Sitarampur dated 29.06.2016 in a letter addressed to the Agent of Rajmahal OCP had sought clarifications/ comments on the issues raised in the above complaint by enclosing the copy of above complaint letter.

5.1 Additional Information**6.0 Contravention Observed****6.1 Details of Contravention**

...Enquiry Continued from Para 5.0

4.0 As instructed by the Director the under signed paid a visit to the mine and conducted the enquiry on 10.08.2016 & 11.08.2016.

5.0 As per the instructions of the undersigned the complainant Shri Arvind Jha was informed by the management to be present during the enquiry. Further the undersigned speak to the Complainant over phone on 10.08.2016 and the complaints informed that he had already received the communication from the management in this regard and will try to attend the enquiry on at 10.00 am on 11.08.2016. But the Complainant did not attend the enquiry.

6.0 The following are the complaints made by the complainant in his letter as above which are covered under the Mines Act, 1952.

1. On 07.06.2016 in the first shift GM (Operations) and Mine Manager in their presence intentionally broken the wall of water sump by setting aside the safety norms causing the drowning of drill machine in muddy water. Further it also had caused danger to the life of Shri V.S Chakraborty, Sr. Overman and operators Shri Mohammed and Shri Premlal. Luckily with the grace of God all the above three persons could save their life.

2. Due to illegal and un-ethical approach of Management for achieving more and more production targets by the operating out sourcing companies, entire Rajmahal OCP had entered in Danger Zone.

3. The complainant had requested to take action on the officers by fixing the responsibility for drowning the drill machine and also impose Section 22 as per the Mines Act 1952 by considering with all seriousness as the open cast mine is in danger zone and also take steps to improve the safety status at the mine.

7.0 Address of the Mine

Line1:	Lalmatia
Line2:	Barasimri
State:	Jharkhand
District	Godda
Pin Code	814165

8.0 Address of the Owner

<u>Tashil</u>	Desergarh
Post Office	Sanctoria
State:	West Bengal
District	Burdwan
Pin Code	713333
E-mail	dtp.easterncoal@nic.in
Phone	03412520546
Mobile	9434721044

9.0 Management's representatives

9.1 Name	D Nayak
9.2 Designation	Agent

10.0 Recommendation(s) :

10.1 Improvement Notice

Details of Improvement Notice

...Enquiry Continued from Para 6.0

reply as detailed below:

1. The report covers the statue compliance at the mine, Safety statistics, training, IR, Welfare, Safety organization at the mine inclusive of safety committees and safety board committees, safety gadgets supply and its implementation, ISO certification of the company, SOPs, R & R Policy etc..

2. Agent submitted that accumulated seepage water of workings is allowed to flow into the sump area arresting the silt in two different stages to keep the sump clean from dirt, silt. There were two nos. of 1000 GPM to dewater the sump water to mid sump and at the mid sump there were two nos. of 2500 GPM and one 1000 GPM pumps were installed to pump out the mine water to the surface.

3. After the drilling work was completed the drill was retreating to the drill station at that time Sr. Overman Shri B. S. Chakraborty, drill operators Ash Mohammad and Premlal Soren observed that there was increase of normal flow of water with silt, so they informed about the incident to Shift in-charge, control room, manager, safety officer and to him over walkie-talkie. On getting the information within 10 minutes all officers and supervisory staff rushed to the spot and it was seen that the drill operators and the overman were inside the drill cabin and all of them were asked to stop the drill and were rescued by using Pontoon/ float which was readily available at the pumping station near sump. Further managements attempts to rescue the drill was hampered due to rain which started at about 1:20 pm. It was continuous rain of 39mm, which had caused further drowning of the drill above the under carriage level. Further rains of 346mm in the month of July caused more water accumulation at the sump causing further drowning upto cabin level. Expert from Kahalgaon were also called to remove the drill but could not succeed. He also submitted that pumping capacity will be increased to 7500 GPM for dewatering and the drill will be rescued. Emergency plan and SOP for the drill operators prepared by the management and enforced at the mine (copy enclosed).

Nil

10.2 Prohibitory

Details of Prohibitory

...Enquiry Continued from Para 10.0

4. Agent vide letter no. :RJML:GM(OP):12:388 dated clarified during the enquiry that he was not present at the site at the time of occurrence of the incidence. He along with manager in-charge and other officers rushed to the site after the message was received through walkie-talkie by the over man in-charge of the drilling. The complete activity of drilling was carried out under the supervision of Sr. Overman B.S Chakraborty, who is also WI(mining). The mine is complying all statue applicable by the State and Central Governments and no unethical and illegal mining is being carried out at Rajmahal OCP. Major portion of the mine workings were spread beyond 300-500m. Where ever the mine workings were approaching within 300m, the same were being done as per the permissions obtained.

Inspection:

Accompanied by the Manager, Safety officer, Drilling & Blasting in-charge officer, Surveyor and Sr. Overman Shri B.S Chakraborty on 10.08.2016 in the afternoon inspected the site where the drill was partially drowned and later recorded the statements of both the drill operators. On 11.08.2016 recorded the statement of Sr. Overman cum WI in-charge of drilling, studied plan, checked records of blasting, and obtained the statements from Manager in-charge, Drilling and Blasting Officer, Surveyor and Agent.

No

10.3 Stoppage Of Work

Details of Stoppage Of Work

Observations:

1. The site of drilling where the drill was deployed for increasing the sump capacity was situated at a distance of about 160m from the haul road near mid sump and the present position of the drill was about 60m from the haul road ramp near the mid sump.
2. The silt water sump was situated on the rise side of the mid sump at a distance of about 230m and at a higher elevation of about 20m, from where silt free water was drained to the mid sump through two nos. of 1.5m dia. RCC tubes.
3. Present water level at the drill was above cabin and the drill mast was visible.
4. 4-6 inch flow water was observed through one of the two 1.5m dia. RCC drain tubes provided at the upper sump.
5. The drain tubes were partly exposed and the length was about 3.0m, there was no strong embankment at the drain tubes.
6. Working plan of the mine was studied and found that only part of the workings are being done in danger zone but beyond 180m from the nearby tolas or villages. Major workings were situated beyond 300-500m of the villages.
7. Checked the blasting records and PPV monitoring records and found them in order.

10.4 Withdrawal Of Permission(s)

Nil

Details of Withdrawal Of Permission

...Enquiry Continued from Para 10.3

Findings:

1. Drill deployment was a planned job of about 3hrs for drilling 7 holes of each 5-6m in length to increase the main sump capacity for accommodating more rain water of upcoming monsoon.
2. The drill job was kept under the supervision of Shri B.S Chakraborty, Sr. Overman who was also a Workman Inspector.
3. The incidence of flow of water along with silt occurred at the time when the drill was retreating after the completion of drilling work and the drill had tracked about 140m from the drill site.
4. The flow of silt water was caused due to sudden breach of the thin embankment at the side and beneath the drain tube.
5. Overman in-charge of the drilling was very much aware of the possible threat of drill getting struck in the silt water and as per his instructions operators worked very hard to march the drill machine towards the haul road situated at the mid sump but could not do so due to the slippery and jamming of under carriage track of the drill. There was no life threat or panic at the time of this incidence he calmly communicated about the incidence over wakie- talkie to the manager, control room and shift in-charge and within 10 minutes they arrived at the site and ask the crew to suspend the efforts of removing the drill and with the available pontoon /float the two operators and Overman were rescued as the water level at the drill was upto the level of under carriage i.e about 3 inch. There was no manager or the GM operations present at the top where the breach of the side embankment took place and that has subsequently caused flow of silt and water.

10.5 Contravention Letter

Details of Contravention Letter

...Enquiry Continued from Para 10.4

6. Managements efforts to rescue the drill were hampered due to immediate rain on the same day in the afternoon and that had caused further rise in water at the drill. Management is planning to increase the pumping capacity at the mid sump to remove the drill.
7. Study of working plan of the mine revealed that the entire workings of the mine were not in danger zone. But partly the Over burden works were extended in danger zone beyond 180m from the villages for which management had obtained necessary permission for control blasting.
8. Scrutiny of blast records revealed that blasting is being done as per the permitted norms and blast monitoring is being done regularly at the mine and records to that effect are maintained.
9. No illegal or un-ethical mining was observed at Rajmahal OCP of M/s ECL.
10. The above findings were also corroborated with the statements recorded/ obtained by the drill operators, Sr. Overman, in-charge of drilling, officer in-charge of Drilling and Blasting, Surveyor and Manager in-charge on the day of this incidence and the Agent of the mine.

11.0 Remark**Conclusion:**

Enquiry in to the above reveals that the complaints made by the complainant in his letter in respect of drowning of drill was partly true, where as the intentional drowning of drill and endangering the life of three persons by the management is not true. The complaint regarding entire mine is in danger zone is not true. Only parts of the workings were being done in danger zone, necessary permissions were obtained by the management for carrying out controlled blasting with in danger zone. The other complaints mentioned in the letter were found not true. Management may be suitably addressed to further strengthen the earthen bund/embankment in width and height above the drain pipes and also to increase the length of RCC drain pipes provide at the bund/embankment for non occurrence of such incidence. Further the present muddy water sump may be allowed to dry as its capacity had drastically reduced due to the deposit of silt and new sump may be created for the purpose.

12.0 Submitted Date16-08-2016
PM

मो. नियाजी
(मो० नियाजी) 16/8/2016
खान सुरक्षा उपनिदेशक,
सीतारामपुर क्षेत्र संख्या-III.

42/45

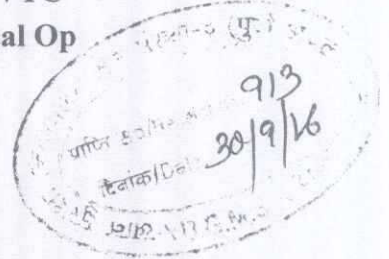
निदेशक / उपप्रहानि. / महानि. कृपया देखें / रिकार्ड करें।
 30/9/16 4/10/2016

Directorate General Of Mines Safety

Ministry of Labour & Employment
 Government of India

Name of the Mine
 Name of the Owner
 Name of the Agent
 Name of the Manager
 Manager's Qualification
 Name of Inspecting Officer
 Designation of IO
 Date of Inspection

Rajmahal OCP, VTC
 Director Technical Op
 D K Nayak
 P Kumar
 First Class
 Md Niyazi
 Deputy Director
 26-09-2016



Others

Purpose of Inspection

1.0 Mine Details

Mine Code

011047

LIN

1517219762

1.1 Type of Mine

Coal Opencast

1.2 Mineral Mined

Coal

1.3 Production/day

28000 tonne

1.4 Employee With Employer

	Direct	Contractual	Total
Male	1750	296	2046
Female	149	0	149

1.5 Employee on the date of Inspection

	Direct	Contractual	Total
Male	792	108	
Female	121	0	

1.6 Hours of Works

Start Time:8:00 am

End Time:8:00 am

Rest Time:1

Weekly day of rest:

2.0 Contractor Details

2.1 Contractor Available Yes

2.2 Name RCML JV

2.3 Present Address

Line1: Industry House
 Line2: 10th Comec Street, 18th Floor
 City: Kolkata
 Pin Code: 700017
 State: West Bengal
 District: Kolkata

2.4 Return being filed Yes

3.0 Brief of the mine including permission(s) accorded

Rajmahal Opencast Project of M/s Eastern Coalfields Ltd; situated in Godda district of Jharkhand State was started in the year 1987 and it was located at a distance of about 220 km from Sitarampur Zonal/Regional office. Total leasehold area of the mine was 1978 Ha. Rajmahal OCP lies within Lalmatia exploration block which covers on an area of about 15 sq. km. Eight persistent coal horizons of Barakar formations have been identified in this block. The seams within the leasehold area in the ascending order are I, II(bottom), II(top), III, IV, IX, X and XI. The seams II (bottom), II (top), III are highly interlaced in nature within the leasehold area. Rajmahal OCP is being worked in two patches namely RCML patch and Departmental patch. At RCML patch removal of overburden and extraction of coal was done contractually by M/s RCML.

4.0 Details of Inspection

4.1 Adequacy of supervision Yes
 4.2 Area Inspected SMS and Opencast workings

5.0 Observations

An average of 18000 tonne of coal and 70000 m³ of OB is being removed from this patch. At Departmental patch removal of overburden and extraction of coal was being done departmentally. An average of 10000 t of coal was being produced and 25,000m³ of overburden was being removed from this patch.

Management obtained permission under Regulation 98(1) & (3) of the Coal Mines Regulations 1957 to remove overburden and extract coal by opencast method by the deployment of HEMM in conjunction with deep hole drilling and blasting vide this Directorates letter no. S4/03/26/006/II-B/87/1182 dated 08.04.1987. Permission under regulation 161(1) & 168(5) of the CMR 1957 to use SMS explosive was also granted to management vide letter no. S3/010375/II-B/2007 dated 15.10.2007. Management were also granted permission to conduct blasting (controlled) within danger zone but beyond 60m of dwellings /structures at Rajmahal OCP under Reg. 170(IB) & Reg. 170(1A) of the CMR 1957 vide letter no. S3/010375/VII-B/2015/1035 dated 22.06.2015

5.1 Additional Information

6.0 Contravention Observed No

Details of Contravention

Continued from para 5.0

As per DGs (Tech.) Instruction No. 1 of 2016 and circular No. 5 of 2016 and as advised by Dy. DG (EZ) Rajmahal OCP was selected from Region No.3 for the development of SMP. Already at two mines namely Sonepur Bazari OCP and Kottadih Colliery SMP programme was started and the mines are working in development of SMP. As a part of above directive a team of DGMS Officials/ Inspecting Officers of Rajmahal OCP paid a visit to the mine on 26.09.2016 & 27.09.2016 and conducted awareness programme on the preparation and development of SMP.

S/Shri V. Lakshminarayana, Director of Mines Safety/ Staff Officer (EZ), Md. Niyazi, Dy. Director of Mines Safety, Region No.3, S G Bhaisare, Dy. Director of Mines Safety (Mech.) and C Palanimalai, Dy. Director of Mines Safety, (Elect.) attended the awareness programme. Shri V. Lakshminarayana, S.O lead the team and conducted the programme on SMP.

Representation from Rajmahal Area of M/s ECL includes S/Shri S K Singh, GM, D K Nayak, Agent, P Kumar, Manager, A K Verma, GM(E & M), S P Barnawal, Safety Officer, R S K Raman, Training Officer and other representatives from the outsourced RCML patch and WI of mining, mechanical, and electrical discipline were also attended the programme. It was a good gathering of around 31 persons for the above programme/ workshop.

7.0 Address of the Mine

Line1:	Lalmatia
Line2:	Barasimri
State:	Jharkhand
District	Godda
Pin Code	814165

8.0 Address of the Owner

Tashil	Dishergarh
Post Office	Sanctoria
State:	West Bengal
District	Burdwan
Pin Code	713333
E-mail	eclcos17a@gmail.com
Phone	03412520549
Mobile	9434721044

9.0 Management's representatives

9.1 Name	S K Singh
9.2 Designation	GM

10.0 Recommendation(s) :

10.1 Improvement Notice	No
10.2 Prohibitory	No
10.3 Stoppage of Work	No
10.4 Withdrawal of Permission(s)	No
10.5 Contravention Letter	Yes

Details of Contravention Letter

Continued from para 6.1

The programme consisted of power point presentation, interaction with the participants, formulation of teams, listing of different hazards, risk ratings and preparations of Hazard Control plan.

On 26.09.2016 in the afternoon presentation was arranged to all the participants and in the evening at about 7:30 pm mine workings were inspected by all the officers of the DGMS accompanied by the Agent, manager, safety officer and other officials of the mine. Sri V Lakshminarayana, SO lead the team and made different teams and thought how to identify the potential hazards of work place. A special reference was paid to illumination at the work place.

On 27.09.2016 in the forenoon at 9:30 am an exercise was conducted by involving the participants to list the different hazards of Rajmhal OCP. A total of 25 hazards were identified and risk ratings were done.

Five teams were formed with team leader S/Shri Manoj Sahi, S P Barnawal, RSK Ramana, I Biswas and U K Thakur. Major hazards were identified namely accidents due to high benches, Haul roads, Un- skilled workmen, Electricity, Dump failures. A sample hazard control plan was prepared on the high risk hazard by involving all the teams participation.

11.0 Remark

DGMS officials actively involved with the teams and guided the teams for the preparation of control plans. At the end of the session, team leaders presented the control plan for the selected hazard to the house.

Time frame schedule was discussed with the management for the initial task of formulation of the teams, identification of hazards, risk ratings and preparation of hazard control plan and it was agreed upon by the management i.e upto 31st October, 2016. The work shop /programme was concluded at 2:30 pm

12.0 Submitted Date

29-09-2016
AM

मो. निवाजी 29/9/2016
(मो० निवाजी)
खान सुरक्षा उपनिदेशक,
सीतारामपुर क्षेत्र संख्या-3