INDIAN BUREAU OF MINES
MINERALS DEVELOPMEMT AND REGULATION DIVISION

Inspection under SDF for star rating of mines REPORT

Kolkata regional office

Mine file No : KOL/JHK/SB(W)/LST - 19 **Mine code : 38BHR27013**

(i) Name of the Inspecting Officer and ID No. : **E025) NAMAN EKKA**

(ii) Designation : Junior Mining Geologist

(iii) Accompaning mine Official with Designation : Shri Sanjeev Tripathi, Mines Manager.

(iv) Date of Inspection : 18/12/2018

(v) Prev.inspection date : 12/01/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **RAJANKA(598.88 HECT.)**

(b) Registration NO. :

(c) Category : A Fully Mechanised

(d) Type of Working : Opencast

(e) Postal address

State : JHARKHAND
District : SINGHBHUM (WEST)
Village : RAJANKA
Taluka : CHAIBASA
Post office : JHINKPANI
Pin Code : 833215
FAX No. : (06589) 235250
E-mail :
Phone : (06589) 235224

(f) Police Station :

(g) First opening date : 12/08/1947

(h) Weekly day of rest : SUN

2. Address for correspondance : PO-JHINKPANI, DIST-SINGHBHUM WEST
JHARKHAND
PIN-833215

3. (a) Lease Number : BHR0030
(b) Lease area : 598.89
(c) Period of lease : 20
(d) Date of Expiry : 31/12/1990

4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee	:	ACC LIMITED CHAIBASA CEMENTS WORKS P.O - JHINKPANI DIST. - SINGHBHUM (W) SINGHBHUM (WEST) JHARKHAND Phone:06589-235224 FAX :06589-235250
Owner	:	Neeraj Akhoury ACC Ltd. Cement House 121, Maharshi Karve Road Mumbai ,Maharashtra MUMBAI (SUBURBAN) MAHARASHTRA Phone: 022-33024321 FAX : 022-66317407
Agent	:	Dr. A.K.Saxena M/s ACC Ltd.Chaibasa Cement Works P.O.Jhinkpani,Dist Singhbhum West Jharkhand SINGHBHUM (WEST) JHARKHAND Phone: 06589-235391 FAX : 06589-235250

Mining Engineer

Name	:	SANJEEV TRIPATHI,Full Time
Qualification	:	B.E.(MINING ENGINEERING)
Appointment/ Termination date	:	01/04/2016

Geologist

Name	:	PANKAJ SHARMA,Full Time
Qualification	:	M.Sc.(Geo)
Appointment/ Termination date	:	22/04/2013

6. Date of approval of Mining Plan/Scheme of Mining :

Mining Scheme rule 12 MCDR1988	03/07/2000
Modif.approved Mining Scheme	30/06/2003
Mining Scheme rule 12 MCDR1988	29/10/2005
Renewal under rule 24 MCR1960	29/07/2010
MP modif under 17(3) MCR 2016	06/03/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	5 Nos	3 Nos	15 nos bore hole as were propose out of which 13 nos have been drilled.
1b	Exploration over lease area for geological axis 1 or 2	G1: 25 ha.	G1:-15 ha G2:-10 ha	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Such Proposal	SPS GEO MINING SERVICES (Rs. 1212500)	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No such proposal	No work done	
1e	Balance reserve as on 01/04/20	(111) :5799473 T (211) : 9699341 T (333) :14286000 T (334) :10300000 T	(111) : 5286352 T (211): 9699341 T (333): 14286000 T (334): 10300000 T	
1f	General remarks of inspecting officers on geology, exploration etc			Proposed Exploration could not be done due to resistance from local community.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	(ML S11-ML S16).	(ML S11-ML S16).	As per modification to the approved modified mining plan
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in topsoil ,OB and Mineral is proposed	Benches in Nos Top Soil :01 Purple Shale:01 Green Shale :01 Grey shale:01 Pink Limstone:01 HG Limestone:01	

2c	Stripping ratio or ore to OB ratio	1:0.21	1:0.24	
2d	Quantity of topsoil generation in m3	1187 m3	1510 m3	
2e	Quantity of overburden generation in m3	76740 m3	281450 m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development of pit is as per approved plan.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	02(Q1 & NP)	Two pits were in operation	
3b	Quantity of ROM mineral production proposed	1802400 tons	1158099 tons	
3c	Recovery of sailable/usable mineral from ROM production	No such proposal	No work done	
3d	Quantity of mineral reject generation	No such proposal	No work done.	
3e	Grade of mineral rejects generation and threshold value declared.	<35% CaO	<35% CaO	
3f	Quantity of sub grade mineral generation.	687033 tons	280383 tons	
3g	Grade of sub grade mineral generation	(CaO: 35-38%)	(CaO: 35-38%)	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Ore dressing ,beneficiation of grey shale as recommended by IBM, Nagpur	Ore dressing ,beneficiation of grey shale as recommended by IBM, Nagpur is being implemented.
3j	Provision of drilling and blasting in mineral benches	Yes	Drilling and Blasting is being done in mineral benches.
3k	Provision of mining machineries in mineral benches	Yes	mining machineries in mineral benches were present at the time of inspection.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	11.5 Meters	nearly 11.5 m
3m	Total area covered under excavation/pits	A: 13.44 ha C: 0.10 D: 25.86 F:33.44 G:15.16 S:4.70 T: 2.74 Total: 95.44	A: 13.44 ha C: 0.10 D: 25.86 F:33.99 G:15.16 S:4.70 T: 2.74 Total: 95.99
3n	Ore to OB ratio for the pit/mine during the year.	1:0.21	1:0.24
3o	Total area put in use under different heads at the end of year	104.24 Ha.	104.79 Ha.
3p	Production of ROM mineral during the last five year period as applicable	Production in tons 2013-14:1440000 2014-15:1800000 2015-16: 1154027.69 2106-17: 2020150 217-18 :1802408.8	Production in tons 2013-14:1227516 2014-15: 475255 2015-16: 621799 2106-17:1093050 2107-18 :1158099

3q	General remarks of inspecting officers on method of mining etc.		Method of minig adopted is as per approved document.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Benches in Nos Top Soil :01 Purple Shale:01 Green Shale :01 Grey shale:01 Pink Limstone:01 HG Limestone:01	Benches in Nos Top Soil :01 Purple Shale:01 Green Shale :01 Grey shale:01 Pink Limstone:01 HG Limestone:01	
4b	Location of topsoil, OB and mineral reject dumps	OB section line ML12 TO S4	ML 12 to S4	
4c	Number of dumps within lease area and outside of lease area	Within the lease area	Within the lease area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	ML:12 To SL S4	ML:12 To SL S4	
4e	Number of active and alive dumps.	01	01	
4f	Number of dead dumps.	No dead dumps	No dead Dumps	
4g	Number of dumps established.	No dumps stablised	No dumps stablised	
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposal for Retaining wall or garland drain all along dumps	Retaining wall or garland drain all along dumps present	

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks

5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No such proposal	No work done.	
5b	Area under backfilling of mined out area	A: 8.34 D: 16.68 F:11.27 S:0.18 Total: 36.47	A: 8.34 D: 16.68 F:11.27 S:0.18 Total: 38.47	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Plantation	Top soil is used for plantation	Top soil is used for plantation
5d	Total area fully reclaimed and rehabilitated	No proposal	No area is fully reclaimed and rehabilitated.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Bach filling is being done in 04 mining pits but not have been fully reclaimed.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Annual treturn on PMCP submitted on Time	Annual treturn on PMCP submitted on Time	
6b	Area available for rehabilitation (ha) .	No such proposal	No area available for rehabilitation .	
6c	afforestation done (ha).	1.3 Ha.	2.0 Ha.	
6d	No. of saplings planted during the year	2250	5500 as reported during inspection.	
6e	Cumulative no .of plants	8000	13800 as reported during inspection	
6f	Any other method of rehabilitation	No such proposal	No work done.	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	43.5 X 2.0 X 10 (.87 Ha.)	0.55 Ha.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such proposal	No work done
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No such Proposal	0.3 Ha area has been planted.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such Proposal	No work done
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No such proposal	No work done.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No such proposal	No work done
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No such proposal	No work done.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No such proposal	No work done.

6p	Compliance of environmental monitoring (core zone and buffer zone)	Environmental monitoring (core zone & buffer zone) is proposed	Environmental monitoring (core zone & buffer zone) as proposed is being practiced in the mines	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Compliance on PMCP is under Progress as proposed in approved document.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting done within the lease area	Grade wise sorting done within the lease area	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	
7c	Different grade of mineral sorted out at mines.	Cement Grade Sub Grade	Cement Grade Sub Grade	
7d	Any beneficiation process at mines .	Only grade wise sorting	Only grade wise sorting	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			grade-wise sorting within lease area is being parcticed mechanically.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top soil is removed separately and utilize for plantation	Top soil is removed separately and utilize for plantation	Top soil is removed separately and utilize for plantation

8b	Concurrent use or storage of topsoil	Storage of top soil	Storage of top soil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for overburden, waste rock, rejects and fines proposed in the approved document	Separate dumps for overburden, waste rock, rejects and fines as proposed in the approved document found	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Back filling is proposed	Backfilling is being done.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal	No such proposal so no work done.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No such proposal	No such information.	
8g	Survival rate	>85%	86.83 %	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads to control airborne dust is proposed.	Water sprinkling on roads to control airborne dust as proposed is being practiced.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Plantation done in and around the mines area adds to the aesthetic beauty.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show couse position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on

Date :

(**NAMAN EKKA**)

Indian Bureau of Mines