

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

Inspection under SDF for star rating of mines REPORT

Kolkata regional office

Mine file No : CAL/BH/SB/FE(D-1)

Mine code : 30BHR27017

- (i) Name of the Inspecting : **E025**) **NAMAN EKKA**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 03/02/2020
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MANOHARPUR (DHOBIL)**
- (b) **Registration NO.** : **IBM/5662/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
State : JHARKHAND
District : SINGHBHUM (WEST)
Village : CHIRIA
Taluka : MANOHARPUR
Post office : CHIRIA
Pin Code : 833106
FAX No. : 06596-263714
E-mail : momchiria@gmail.com
Phone : 06593 287674/09308128774/
- (f) Police Station : MANOHARPUR
- (g) First opening date : 14/06/1982
- (h) Weekly day of rest : SUN
2. Address for : AT & PO: CHIRIA
correspondance : DISTT: SINGHBHUM WEST
JHARKHAND - 833106
3. (a) Lease Number : BHR0061
- (b) Lease area : 1052
- (c) Period of lease :
- (d) Date of Expiry : 07/12/2005
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : STEEL AUTHORITY OF INDIA LTD.
 INDUSTRY HOUSE 5TH & 6TH
 FLOOR 10, CAMAC STREET
 KOLKATA WEST BENGAL
 Phone:033-22822316/0462/3385
 FAX :033-22822316/0462

Owner : Harinand Rai
 Steel Authority of India
 Ltd. Ispat Bhawan, Lodi
 road New Delhi-110003
 SINGHBHUM (WEST) JHARKHAND
 Phone: 011-24367481-86
 FAX : 011-24367015

Agent : D.DEY SARKAR
 At &P.O. Chiria Dist. West
 Singhbhum Jahakhand
 SINGHBHUM (WEST) JHARKHAND
 Phone: 8986881005
 FAX :

Mining Engineer

Name : R.K.Patri, Full Time
 Qualification : B.Tech (Min.)
 Appointment/ : 18/01/2019
 Termination date

Geologist

Name : RAJKESH KUMAR NAIK, Full Time
 Qualification : M. Sc (Geo)
 Appointment/ : 14/11/2014
 Termination date

Manager

Name : RAVI RANJAN
 Qualification : B.Tech (Min.) FCMMCC (R)
 Appointment/ : 18/01/2019
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	02/01/2001
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	05/05/2006
		Mining Scheme rule 12 MCDR1988	11/12/2008
		Mining Scheme rule 12 MCDR1988	06/09/2013
		MP review under 17(1) MCR 2016	23/11/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Drilling of 17 nos. of vertical boreholes to cover the entire lease hold area with a cumulative meterage of 1,700 m has been proposed in the previous scheme of mining.	Boreholes proposed in the earlier scheme of mining were outside the broken area. These boreholes were not drilled as proposed. However Geo-physical prospecting was completed for the total lease area and potential zones were identified for core drilling.	Boreholes proposed were not drilled. Borehole drilling could not be taken up owing to following constraints: - Application for carrying out prospecting operations was submitted to State Forest department. Forest clearance is still awaited. No exploration can be carried out without forest clearance. Hence, drilling of boreholes could not be initiated as proposed in the previous scheme of mining.
1b	Exploration over lease area for geological axis 1 or 2	G1 (Broken area)	G1 (Broken area)	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No such proposal	-	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposal	Broken area has been explored in G1 and outside broken area only Geo-physical prospecting was completed for the total lease area and potential zones were identified for core drilling.	-
1e	Balance reserve as on 01/04/20	-	Balance reserve as on 01/04/2019 - 111 - 53.057 MT 112 - 5.34 MT 211 - 25.1 MT 221 - 126.0 MT	

1f	General remarks of inspecting officers on geology, exploration etc	-	-	Entire broken area has been explored in G1 category, However Geo-physical prospecting was completed for the total lease area and potential zones were identified for core drilling.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	South East pit and North East pit	South East pit and North East pit	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes	
2c	Stripping ratio or ore to OB ratio	1:0.14	1:0.008	
2d	Quantity of topsoil generation in m3	NIL	NIL	
2e	Quantity of overburden generation in m3	75326 m3	nearly 1500 m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	-

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two	Two	
3b	Quantity of ROM mineral production proposed	749986 Tonnes	729308 Tonnes	

3c	Recovery of sailable/usable mineral from ROM production	95%	95%
3d	Quantity of mineral reject generation	NIL	NIL
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA
3f	Quantity of sub grade mineral generation.	77461 Cum	No sub-grade Generation.
3g	Grade of sub grade mineral generation	45-55% Fe	No sub-grade Generation.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual and Mechanised both	Manual and Mechanised both
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None	None
3j	Provision of drilling and blasting in mineral benches	Wet Drilling and Delay detonators	Wet Drilling and Delay detonators
3k	Provision of mining machineries in mineral benches	Drill, Excavators, Dumpers, Dozer, Pay loader Etc.	Drill, Excavators, Dumpers, Dozer, Pay loader Etc.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6 m	6 m
3m	Total area covered under excavation/pits	19.16 ha	19.16 ha
3n	Ore to OB ratio for the pit/mine during the year.	1:0.29	1:0

3o	Total area put in use under different heads at the end of year	29.411 ha	29.411 ha
3p	Production of ROM mineral during the last five year period as applicable	2015-16 749678 tonnes 2016-17 748536 tonnes 2017-18 809163 tonnes 2018-19 749986 tonnes 2019-20 749858 tonnes	2015-16 450785 tonnes 2016-17 555166 tonnes 2017-18 443593 tonnes 2018-19 729308 tonnes 2019-20 733795 tonnes
3q	General remarks of inspecting officers on method of mining etc.	Open cast mechanised minining with 100 mm dia deep hole drilling and blasting alongwith showel dumper combination	100 mm dia deep hole drilling and blasting and deployment of showel dumper combination is being practiced.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No top soil generation envisaged during reporting period. Dumping of generated OB/SB/IB on old dump.	Generated OB/SB/IB dumped on old dump.	
4b	Location of topsoil, OB and mineral reject dumps	Outside pit but inside broken area	Outside pit but inside broken area .	
4c	Number of dumps within lease area and outside of lease area	Three all within lease area	Three all within lease area	

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Within UPL	Within UPL	Lease area is inside restricted forest land. Dumping inside UPL due to restrictions imposed by forest department for working within broken area .
4e	Number of active and alive dumps.	One	One	-
4f	Number of dead dumps.	One	One	-
4g	Number of dumps established.	-	-	-
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes	-
4i	Length of Retaining wall or garland drain all along dumps	NA	-	-
4j	Number of settling ponds	One	One	-
4k	Specific comments of inspecting officer on waste dump management	-	-	-

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	Mineral continued in depth and no area is matured for backfilling	-
5b	Area under backfilling of mined out area	NIL	NIL	-
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Generation of top soil not envisaged during reporting period	No generation of top soil during reporting period	

5d	Total area fully reclaimed and rehabilitated	NIL	NIL	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Ore body continued in depth and there is no mature area for backfilling.

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).	-	Yes	
6b	Area available for rehabilitation (ha) .	NIL	NIL	
6c	afforestation done (ha).	NA	-	
6d	No. of saplings planted during the year	600	600	
6e	Cumulative no .of plants	NA	-	-
6f	Any other method of rehabilitation	None	None	-
6g	Cost incurred on watch and care during the year	-	Nearly 50000/-	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No such proposal	-	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such proposal	-	-

6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No such proposal	-	-
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposal	-	-
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No such proposal	-	-
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No such proposal	-	-
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No such proposal	-	-
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No such proposal	-	-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environment monitoring in core and buffer zone	Air, water, noise monitoring stations are installed and monitoring parameters are being followed.	-
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	-

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting	Grade wise sorting	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual & Mechanical	Manual & Mechanical	
7c	Different grade of mineral sorted out at mines.	Yes	Yes as detailed below: Lumps (58-60%)- 26716 tonnes, Lumps (60-62%)- 62151 tonnes, Lumps (62-65%)- 221961 tonnes, Lumps (65% & above)- 59897 tonnes, Fines (55-58%)- 4451 tonnes, Fines (60-62%), - 238922 tonnes, Fines (62-65%)- 119698 tonnes,	-
7d	Any beneficiation process at mines .	No	No	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	-

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal for top soil removal during reporting period.	No top soil generation during reporting period.	
8b	Concurrent use or storage of topsoil	No proposal for top soil removal during reporting period.	-	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Mineral continued in depth and there is no such proposal during reporting period	-	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Mineral continued in depth and there is no such proposal during reporting period	-	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation of 600 saplings	600 Saplings	
8g	Survival rate	60%	60%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	-

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	-	Monthly and Annual Returns submitted in time	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer : Sh. Ratan Kumar Patri Geologist : Dr. Rajes Kumar Naik	Mining Engineer and Geologist are in post
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Under Open cast working: 19.160 ha, Waste disposal: 2.70 ha, Others: 6.451 ha	Details furnished in Annual Returns are in order
9d	Scrutiny of Annual return on afforestation	1100 saplings planted during reporting period	Reported Plantation is in higher side
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Reject Generated: NIL	Details furnished in Annual Returns are in order
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing Stock (ROM): 138156 tonnes	Details furnished in Annual Returns are in order
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Captive Mine and there is no sale. Production cost: Rs. 2024.19/tonnes	Details furnished in Annual Returns are in order
9h	Scrutiny of Annual return on fixed assets	Fixed Assets: Rs. 2252366972/-	-
9k	Scrutiny of Annual return on mining machineries	Back hoe: 5, Front end loader: 5, Tipper: 10. Truck: 90, Dozor: 1, Air compressor: 2, Motor Grader:1	Details furnished in Annual Returns are in order

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