

**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 : **R003**) **RAGHVENDRA KUMAR**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri Ravi Ranjan, GM (Mining) & Shri S. S. Rao, DGM (
Official with
Designation
- (iv) Date of Inspection : 27/12/2023
- (v) Prev.inspection date : 03/02/2020

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 : Amarendu Prakash
 Steel Authority Of India
 Limited Bokaro Steel Plant
 Bokaro-827001 SINGHBHUM
 (WEST) JHARKHAND
 Phone: 05642240300,024
 FAX : (06542)240/82

Agent : Kamal Bhasker
 PO- Chiria West Singhbhum
 Jharkhand SINGHBHUM (WEST)
 JHARKHAND
 Phone: 8895502967
 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 Plan/Scheme of Mining	:	Existing rule 11 MCDR1988	02/01/2001
		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
		MP review under 17(1) MCR 2016	15/11/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	It was proposed to drill 9 boreholes in 2020-21.	No exploratory drilling conducted.	Exploration not done due to non availability of stage II forest clearances.
1b	Exploration over lease area for geological axis 1 or 2	23 numbers of boreholes have been Proposed during 2022-2023.	As per proposal no boreholes have been drilled during 2022-2023.	Violation of Rule 11(1) has been issued.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration proposed during 2022-23.	No exploration work was carried out.	Nil.
1d	Balance area to be explored to bring Geological axis in 1 or 2	G 2= 49 ha. G3 = 95 ha.	Nil.	No boreholes have been drilled so far in the lease area.
1e	Balance reserve as on 01/04/20	Balance Reserve as on 01/04/2024 - (Million Tones) 122 - 11.1.	Balance Reserve as on 01/04/2024 - (Tones) 122 - 12.2.	341182 Ton production has been achieved during FY 2022-23.
1f	General remarks of inspecting officers on geology, exploration etc	23 numbers of boreholes have been Proposed during 2022-2023.	As per proposal no boreholes have been drilled during 2022-2023.	No boreholes have been drilled so far in the lease area. Violation of Rule 11(1) has been issued.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	At 622 m.RL, 628 mRL, 634m.RL, 640m.RL 646m.RL 652m.RL 658m.RL	Working has been carried out as per the proposal.	Nil.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Proposed.	As per proposal benches are formed.	Development is restricted to existing pit limit.

2c	Stripping ratio or ore to OB ratio	1 :1.6	1 :1.6	Nil.
2d	Quantity of topsoil generation in m3	No proposal	Nil.	No top soil available as it is an existing pit.
2e	Quantity of overburden generation in m3	During 2022-2023 it is proposed OB as 85403.53 Cu.m.	81214 Cu.m	Nil.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Proposed to work at 622 m.RL, 628 mRL, 634m.RL, 640m.RL 646m.RL 652m.RL 658m.RL	Working has been carried out as per the proposal. As per proposal benches are formed.	No topsoil has been generated during the reporting year as the development is restricted to existing pit limit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 (South pit and South - West pit.)	2 (South pit and South - West pit.)	Nil.
3b	Quantity of ROM mineral production proposed	749900 ton	341182 ton	violation issued under rule 11 (1) for not done dump handling (Fines Dumps) quantity of 150000 tonnes during 2022-23.
3c	Recovery of sailable/usable mineral from ROM production	100% of excavation	100% of excavation	Nil.
3d	Quantity of mineral reject generation	No proposal.	Nil.	Nil.
3e	Grade of mineral rejects generation and threshold value declared.	No proposal.	Nil.	Nil.
3f	Quantity of sub grade mineral generation.	There is No Generation of Sub-grade Mineral.	There is No Generation of Sub-grade Mineral.	Nil.

3g	Grade of sub grade mineral generation	N/A	Nil.	Nil.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Nil.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposal	Nil	Nil.
3j	Provision of drilling and blasting in mineral benches	Wet Drilling and Delay Detonators.	Wet Drilling and Delay Detonators.	Nil.
3k	Provision of mining machineries in mineral benches	Drill, Excavators, Dumpers, Dozer, Pay loader Etc.	As per proposal machineries are available in field.	Nil.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height of 6m was proposed in Mineral.	Benches are formed as per proposal.	Nil.
3m	Total area covered under excavation/pits	A 20.82 hect. area is under Pit.	A 20.82 hect. area is under Pit.	Nil.
3n	Ore to OB ratio for the pit/mine during the year.	1 :1.6	1 :1.6	Nil.
3o	Total area put in use under different heads at the end of year	29.411 Ha.	29.411 Ha.	Nil.
3p	Production of ROM mineral during the last five year period as applicable	2018-19=749986 T 2019-20=749858 T 2020-21=749359 T 2021-22=749858 T 2022-23=749900 T	2018-19=729308.48 T 2019-20=733794.93 T 2020-21=553841.03 T 2021-22=75251.75 T 2021-22=341182.29 T	ALL PRODUCTION WITHIN APPROVED PLAN.

3q	General remarks of inspecting officers on method of mining etc.	Mechanised Method is Proposed.	Benches are formed as per proposal.	Mechanised mine with provisions of deep hole drilling and blasting. Transportation of ore/OB are being done by deploying shovel dumper combination.
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Topsoil: Not specified Waste dump:2 Fine Dump:1 Sub-grade dump:1	Topsoil: Not specified Waste dump:2 Fine Dump:1 Sub-grade dump:1	Nil.
4b	Location of topsoil, OB and mineral reject dumps	NORTH, West & South-West OF THE LEASE	NORTH, West & South-West OF THE LEASE	Nil.
4c	Number of dumps within lease area and outside of lease area	Lease area = 4 Non Lease area = Nil	Lease area = 4 Non Lease area = Nil	Nil.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Over the mineralised area Within Broken area.	Over the mineralised area Within Broken area.	Nil.
4e	Number of active and alive dumps.	Active Dump = One	Active Dump = One	Nil.
4f	Number of dead dumps.	Dead Dumps = Two	Dead Dumps = Two	Nil.
4g	Number of dumps established.	Dumps Established= One	Dumps Established= One	Nil.
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall or garland drain along the dump.	Retaining wall has not maintained properly located in the north-east side of the Sub-Grade Dump and in between from Fines Dump to O.B. Dump-1.	violation issued under rule 11 (1).

4i	Length of Retaining wall or garland drain all along dumps	61 MTR	61 MTR	Nil.
4j	Number of settling ponds	No Proposal.	Nil.	Nil.
4k	Specific comments of inspecting officer on waste dump management	Generated OB/Intercalate dwaste will bedumping in NORTH, West&South-West OF THE LEASE.	Retaining wall has not maintained properly located in the north-east side of the Sub-Grade Dump and in between from Fines Dump to O.B. Dump-1.	Violation issued under rule 11 (1).

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.	Part Extraction.	Part Extraction.	Dhobil pit (top RL 637 & Bottom RL 630).
5b	Area under backfilling of mined out area	2525 m2	2525 m2	The backfilling is of temporary in nature and will be re-handled at conceptual stage.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Top soil used for plantation.	Nil.
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil.	Nil.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	2525 m2 area of Dhobil pit is proposed for backfilling in the FY 2022-23.	Top soil used for plantation.	The backfilling is of temporary in nature and will be re-handled at conceptual stage.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	It should beon Submitted for the year or before 1st July every year.	2022-2023.	Nil.
6b	Area available for rehabilitation (ha) .	No proposal	Nil.	Nil, as the pit is not exhausted.
6c	afforestation done (ha).	No Proposal	Nil	Nil, as the pit is not exhausted.
6d	No. of saplings planted during the year	No Proposal	Nil	Nil, as the pit is not exhausted.
6e	Cumulative no .of plants	No Proposal	Nil	Nil, as the pit is not exhausted.
6f	Any other method of rehabilitation	No Proposal	Nil	Nil, as the pit is not exhausted.
6g	Cost incurred on watch and care during the year	No Proposal	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	2525 m2	2525 m2	The backfilling is of temporary in nature and will be re-handled at conceptual stage.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	2525 m2	2525 m2	The backfilling is of temporary in nature and will be re-handled at conceptual stage.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	No proposal	Nil	NIL, AS THE ORE IS NOT COMPELETLY EXHAUSTED.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil	NIL, AS THE ORE IS NOT COMPELETLY EXHAUSTED.

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	650 saplings in 0.26 ha. Green Belt area.	650 saplings in 0.26ha. Green Belt	695 saplings in outside the lease area.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Every quarterly at stations.	Air- 6 Stations Water - 7 Stations Noise - 5 Stations	Nil.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	It was proposed to plant 650 saplings in 0.26 ha. Green Belt area.	650 Saplings have planted during 2022-2023 inside the lease area.	THE ORE IS NOT COMPELETLY EXHAUSTED.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposal of Grade wise sorting at mine.	Grade wise sorting.	Average 62.5%.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual & Mechanical	Manual & Mechanical	Nil.

7c	Different grade of mineral sorted out at mines.	Average 62.5%	Lump (60-62%)- 19762.05, Lump (62-65%)- 109115.56, Fines (60-62%)- 19648.29, Fines (62-65%)- 192656.39	Nil.
7d	Any beneficiation process at mines	No proposal.	Nil.	Nil.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Proposal of Grade wise sorting at mine.	Lump (60-62%)- 19762.05, Lump (62-65%)- 109115.56, Fines (60-62%)- 19648.29, Fines (62-65%)- 192656.39	Manual & Mechanical Grade wise sorting practiced in mine.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal.	Nil.	Nil.
8b	Concurrent use or storage of topsoil	No proposal.	Topsoil used for plantation.	Nil.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Topsoil: Not specified Waste dump:2 Fine Dump:1 Sub-grade dump:1	Topsoil: Not specified Waste dump:2 Fine Dump:1 Sub-grade dump:1	Nil.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal.	Nil.	Nil.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal.	Nil.	Nil.

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	It was proposed to plant 650 saplings in 0.26 ha. Green Belt area.	650 Saplings have planted during 2022-2023 inside the lease area.	695 saplings in outside the lease area. Cumulative number of plants inside the lease area 1650 and outside the lease area 17685.
8g	Survival rate	65%	60%	Nil.
8h	Water sprinkling on roads to control airborne dust	Wet drilling, water sprinkling on roads and Dust generating areas.	Wet drilling, water sprinkling on roads and Dust generating areas.	Nil.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	It was proposed to plant 650 saplings in 0.26 ha. Green Belt area.	650 Saplings have planted during 2022-2023 inside the lease area.	695 saplings in outside the lease area. Cumulative number of plants inside the lease area 1650 and outside the lease area 17685.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and Annual returns Submitted.	Monthly and Annual returns Submitted.	Nil.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer : Sh.Ratan Kumar Patri Geologist :Dr. Rajesh Kumar Naik, Manager: Shri Ravi Ranjan	Mining Engineer, Geologist and Manager appointed.	Nil.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Open cast working: 20.82 ha., Waste disposal: 1.89 ha., Infrastructure : 1.10 ha and Others: 5.601 Ha.	Area under Open cast working: 20.82 ha., Waste disposal: 1.89 ha., Infrastructure : 1.10 ha and Others: 5.601 Ha.	Seems to be correct.

9d	Scrutiny of Annual return on afforestation	650 nos. within lease and 695 nos. outside lease area.	650 nos. within lease and 695 nos. outside lease area.	695 saplings in outside the lease area. Cumulative number of plants inside the lease area 1650 and outside the lease area 17685.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not shown in the Annual Return.	No mineral reject Generated.	Details reported in Annual returns are seems to be in order.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM opening stock: 138156.270 T ROM closing Stock: 138156.270 T Lump 60% to below 62% Fe= 19762.050 62% to below 65% Fe= 109115.560 Fines 60% to below 62% Fe= 19648.290 62% to below 65% Fe= 192656.390	Seems to be correct.	Details reported in Annual returns are seems to be in order.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex. Mine price=3905.85/ -	Seems to be correct.	Nil.
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets: Rs.- 5288828958/-	Details reported in Annual returns are seems to be in order.	Nil.
9k	Scrutiny of Annual return on mining machineries	Dozer-1; Front end Loader-3; Air compressor-1; Blast hole drill- 1; Truck- 20; Grader-1; BACK HOE- 02 Crusher-02	Details reported in Annual returns are seems to be in order	Nil.

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
MCDR17	Rule 11(1)	30/01/2024			

Date :

(RAGHVENDRA KUMAR)

Indian Bureau of Mines