

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

Review and updation of Mining Plan REPORT

Kolkata regional office

Mine file No : CAL/BH/SB(W)/FE(M-3)

Mine code : 30JHK18001

- (i) Name of the Inspecting : **E025**) **NAMAN EKKA**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Brajesh Kumar, AGM
Official with
Designation
- (iv) Date of Inspection : 05/11/2019
- (v) Prev.inspection date : 04/11/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MANOHARPUR (MACLELLAN)**
- (b) **Registration NO.** :
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
State : JHARKHAND
District : SINGHBHUM (WEST)
Village : MACLELLAN
Taluka : MANOHARPUR
Post office : CHIRIA
Pin Code : 833106
FAX No. :
E-mail :
Phone :
- (f) Police Station :
- (g) First opening date : 10/03/1960
- (h) Weekly day of rest : SUN
2. Address for :
correspondance
3. (a) Lease Number : JHK0001
(b) Lease area : 823.83
(c) Period of lease :
(d) Date of Expiry : 08/12/2025
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 : P.C. TIBREWAL
 AT& PO: CHIRIA DISTT :
 SINGHBHUM WEST JHARKHAND
 SINGHBHUM (WEST) JHARKHAND
 Phone: 06596-287674
 FAX : 06596-263714

Mining Engineer

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

Mining Engineer

Name : P. C. BARUA,Full Time
 Qualification : B. Tech.
 Appointment/ : 08/03/2002
 Termination date

Geologist

Name : M. L. YEDE,Full Time
 Qualification : M. Tech. (App.Geo)
 Appointment/ :
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Renewal under rule 24 MCR1960 03/03/2008
 Mining Scheme rule 12 MCDR1988 27/05/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There was no proposal for drilling in 2018-19	No boreholes drilled during 2018-19.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
1b	Exploration over lease area for geological axis 1 or 2	There was no proposal during 2018-19	Entire area has been explored in the 200 X 200 m and 400 X 400 m Grid pattern previously. A total 109 no. of boreholes have been drilled in the entire lease area. Total meterage drilled was 9929.6 m. Hence entire lease area can be put in G2/G1 category for the reserve estimation.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal	No Exploration Done in 2018-19	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposal	No Exploration hhas been doen in 2018-19.	No Exploration hhas been doen in 2018-19. Entire area has to be explored in G1 Axis
1e	Balance reserve as on 01/04/20		Balance Reserve as on 01/04/2020 Total Reserve - 837.6 Million Tonnes Total Resources - 930.7 Million Tonnes	
1f	General remarks of inspecting officers on geology, exploration etc		No Exploration was proposed for 2018-19 and no exploration has been done in 2018-19	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	2 Locations - Quarry no.8 and North pit	No Development work has been carried out during 2018-19.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Seperate benches of OB and minerals are proposed.	No work done in OB & Mineral Benches, Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
2c	Stripping ratio or ore to OB ratio	1:0.067 (T/m3)	No work has been carried out during 2018-19	
2d	Quantity of topsoil generation in m3	500156 m3 OB/ Topsoil proposed for generation during 2018-19	No work has ben carried out during 2018-19.	
2e	Quantity of overburden generation in m3	500156 m3 OB/ Topsoil proposed for generation during 2018-19	No work has ben carried out during 2018-19.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	02 Pits proposed for production.	No production has been done during 2018-19	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
3b	Quantity of ROM mineral production proposed	During 2018-19, 3.92 Million Tonnes were proposed for production	No Production has been carried out during 2018-19	

3c	Recovery of sailable/usable mineral from ROM production	Recovery factor is based on the proportion of ore types as mentioned in the geological exploration report, carried out M/s MECL. As per the geological report, the ratio of overburden: Lump ore zone: Powdery ore zone: non ore band within the ore zone on the basis of tonnage are in proportion of 0.17:1.1, 52:0.07. From this recovery of ore is around 91% on the basis of tonnage	No Recovery has been made in 2018-19.
3d	Quantity of mineral reject generation	No Proposal for Mineral Reject generation.	No Mineral Rejects generated during 2018-19
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	No Mineral Rejects generated in 2018-19,
3f	Quantity of sub grade mineral generation.	There was no proposal for sub-grade mineral generation	No Sub-grade Mineral Generated during 2018-19
3g	Grade of sub grade mineral generation	45 % Fe to 57 % Fe = Grade of Sub grade Mineral Generation.	No Sub-grade Mineral Generated during 2018-19
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised.	No ROM Screening done in 2018-19

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal proposed	No beneficiation study carried out for sub grade mineral rejects.	
3j	Provision of drilling and blasting in mineral benches	Provision of drilling and blasting in mineral benches present.	No drilling and blasting done in mineral benches.	
3k	Provision of mining machineries in mineral benches	Mining Machineries in Mineral Benches proposed.	No Mining Machineries in Mineral Benches were seen during inspection.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height 6 m Bench width 10 m	Bench height of 6 m and Bench width of 10 m were found during inspection.	
3m	Total area covered under excavation/pits	Details of existing Pits. Quarry No. -8 = Length 507 m X Breadth 846 m = 428922 m ² = 42.8922 Ha Quarry No.-6 = Length 313.5 m X Breadth 23 m = 7210.5 m ² = 7.21 Ha Quarry No.-5 = Length 98 m X Breadth 94 m = 9212m ² = 9.21 Ha. Total = 59.31 Ha.	Details of existing Pits. Quarry No. -8 = Length 507 m X Breadth 846 m = 428922 m ² = 42.8922 Ha Quarry No.-6 = Length 313.5 m X Breadth 23 m = 7210.5 m ² = 7.21 Ha Quarry No.-5 = Length 98 m X Breadth 94 m = 9212m ² = 9.21 Ha. Total = 59.31 Ha.	
3n	Ore to OB ratio for the pit/mine during the year.	Ore to OB Ratio = 1:0.067	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.

3o	Total area put in use under different heads at the end of year	Existing Pits = 59.31 Ha. Dumps = 11 Ha.	Existing Pits = 59.31 Ha. Dumps = 11 Ha. Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
3p	Production of ROM mineral during the last five year period as applicable	Production of ROM In Million Tonnes 2015-16 = 1.52 2016-17 = 4.00 2017-18 = 3.96 2018-19 = 3.92 2019-20 = 3.9 Total = 17.3	Production of ROM In Million Tonnes 2015-16 = NIL 2016-17 = NIL 2017-18 = NIL 2018-19 = NIL 2019-20 = NIL Total = NIL	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
3q	General remarks of inspecting officers on method of mining etc.		Method of mining proposed is open cast mining with forming benches and drilling and blasting in the merial benches. But Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Method of mining proposed is open cast mining with forming benches and drilling and blasting in the merial benches. But Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	There is proposal for seperate dumping of topsoil OB and mineral Rejects.	There is minimal amount of topsoil so generation of topsoil could not be accounted how ever ob & mineral rejects generated earlier have been dumped seperately. But Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	

4b	Location of topsoil, OB and mineral reject dumps	Ob and mineral rejects dumps are proposed to be dumped within the lease area.	Ob and mineral rejects dumps are dumped within the lease area. But Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
4c	Number of dumps within lease area and outside of lease area	NE side of the Northern Pit within the lease area.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	NE side of the Northern Pit within the lease area.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
4e	Number of active and alive dumps.		No active and alive dumps as Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
4f	Number of dead dumps.		No DEad dumps Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
4g	Number of dumps established.		No dumps established Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposal for retaining wall and garland drain.	Retaining wall present. Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.

4j	Number of settling ponds	Proposal of settling ponds at the end of reatining wall	Settling pond present at the end of retaining wall.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
4k	Specific comments of inspecting officer on waste dump management		No waste generated and dumped during last year.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.

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.	Full extraction of mineral before backfilling.	Mineral has not been fully extracted.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
5b	Area under backfilling of mined out area	No Proposal	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use of Topsoil for restoration has been proposed.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
5d	Total area fully reclaimed and rehabilitated	No such proposal	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
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Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).		Annual Report on PMCP not submitted.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
6b	Area available for rehabilitation (ha) .		Annual Report on PMCP not submitted. Mines is non-working.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
6c	afforestation done (ha).		Nearly 15 Ha of land has been afforested.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
6d	No. of saplings planted during the year		1000 plants Planted during the year. Annual Report on PMCP not submitted. Mines is non-working.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.

6e	Cumulative no .of plants	No poposal for Cumulative no. of plants.	Afforestation has been taken up over mined out areas and outside lease areas near Chiria Township. So far he mine management have planted nearly 1,04,035 trees in township, hospital, guest house, camps and office areas. Trees that have been planted are Babul, Acacia, Jamun Karanj, ANeem, Teak, Amrud, Gamhar, Sisam, Ashka, Sal, Bija, Asan, Mango, etc.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
6f	Any other method of rehabilitation	No such Proposal	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
6g	Cost incurred on watch and care during the year	No such proposal	Nearly 1.00 Lakhs Rupees	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No such Proposal	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NO such Proposal	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	No such Proposal	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such Proposal	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No such Proposal	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Proposal for planting trees within the waste land within the lease area and outside the lease area.	Trees within the waste land within the lease area and outside the lease area have been planted.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No such Proposal	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No such Proposal	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposal for monitoring in Core Zone and Buffer Zone	No monitoring done as Mines is non-working.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposla for grade wise sorting.	No work done.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	No work done.	
7c	Different grade of mineral sorted out at mines.	>58% fe	No work done	
7d	Any beneficiation process at mines	No such proposal	No worrk done.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.	Stage-II Forest clearance is still awaited. Hence, work could not be commenced as proposed in the previous approved Mining plan.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposal for topsoil removal wherever present as minimal amount of topsoil is present within the lease area.	No work done.	
8b	Concurrent use or storage of topsoil	Storage of Topsoil	No work done.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal for Seperate dumps for OB Wsate rock rejects and fines.	No work done.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposal for restoring in its original land use.	No work done.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Phase resotration.	No work done.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Nos uch proposal	No work done.	
8g	Survival rate	No such proposal	90%	
8h	Water sprinkling on roads to control airborne dust	Proposal for water sprinkilinf on roads to control airborne dust.	no work done as mines was non-working.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			As the mines lies in the Saranda forest land good greenerary lies in and around the MInes.

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 on time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Mining Enginner and geologist appointed werwe present during the Inspection.	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	No work has been carried out hence there is no change in land use pattern compared to last year.
9d	Scrutiny of Annual return on afforestation	Afforestation done and data mentioned in Return.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral reject generated and nothing mentioned in Returns
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Graded Ore stock present in the mine
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Mines is non-working
9k	Scrutiny of Annual return on mining machineries	Mining Machineries present but not in operation, as mines is non-working.

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

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

Date :

(**NAMAN EKKA**)

Indian Bureau of Mines