INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR INSPECTION REPORT

Kolkata regional office

Mine file No : KOL/JHK/SB(W)/FE(M-4) Mine code: 30BHR27018

(i)Name of the Inspecting : K004) B.P KERKETTA

Officer and ID No.

(ii) Designation : Sr. Asst. Contrl. Mines

(iii) Accompaning mine : Shri Kamlesh Rai, DGM (Mines)& Mines Manager

Official with

Designation

(iv) Date of Inspection : 28/10/2017 Prev.inspection date : 10/01/2017 (v)

PART-I : GENERAL INFORMATION

(a) Mine Name : MEHGAHATUBURU

(b) Registration NO.

(C) Category : A Fully Mechanised

(d) Type of Working Opencast

(e) Postal address

> State : JHARKHAND

District SINGHBHUM (WEST) Village MEGHAHATUBURU

Taluka CHAIBASA

Post office : MEGHAHATUBURU

Pin Code : 833223

06596-244220 FAX No. E-mail : mdsail@gmail.com Phone 06596-244229

Police Station (f) : MEGHAHATUBURU

First opening date : 15/06/1985 (g)

Weekly day of rest (h) : SUN

Address for : Vill: - Meghahatuburu. Po: -Meghahatuburu.

correspondance Dist - Singhbhum west

State: - Jharkhand. PIN---833223

3. (a) Lease Number : BHR0073 (b) Lease area : 879.44

> Period of lease : 20 (C)

(d) Date of Expiry : 05/02/2023

Mineral worked 4. : 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 : K. MAITY

M/S STEEL AUTHORITY OF INDIA LTD. ISPAT BHAWAN , LODHI ROAD NEW DELHI DELHI

DELHI

Phone: 01124367015

FAX :

Agent : S. D. PAHARI

AT & PO MEGHATABURU SINGHBHUM(W), JHARKHAND SINGHBHUM (WEST) JHARKHAND

Phone: 8986881001

FAX :

Mining Engineer

Name : RAM SINGH, Full Time

Qualification : B. TECH MINING
Appointment/ : 08/08/2014

Termination date

Geologist

Name : DR. MANOJ KUMAR, Full Time Qualification : M.SC. (GEOLOGY), PHD GEOLOGY

Appointment/ : 28/02/2015

Termination date

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

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|----------------------|--|---|
| 1a | Backlog of previous year | 10 | Nil | A violation letter has been issued on 27/11/2017 for it. Lessee has replied on 04/01/2018 that for want of Stage II Forest Clearance no exploration could be carried out. |
| 1b | Exploration over lease area for geological axis 1 or 2 | 24 holes - 2400 m | NIL | Stage II FC awaited from MoEF&CC for Central Block |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | Nil | Nil | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | Nil | Nil | |
| 1e | Balance reserve as on 01/04/20 | | 11million Te (Proved 111 category) | |
| 1f | General remarks of inspecting officers on geology, exploration etc | Nil | Mining operation is carried out as per approved Modified mining plan , but exploration could not be done for want of Forest Clearance. | |

Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|-----------------------------|-----------------------------|--------------------------|
| 2a | Location of development w.r.t.lease area | 846-836 mRL 836-826 m RL | | |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | | 846-836 mRL 836-826 m RL | |
| 2c | Stripping ratio or ore to OB ratio | 1:1.82 | 1 : 0.80 | Central block not opened |

| 2d | Quantity of topsoil generation in m3 | No specific proposal | Nil | No fresh area broken |
|----|--|----------------------|--|--------------------------|
| 2e | Quantity of overburden generation in m3 | 6.61 million Cum. | 30,62,750 Te | Central block not opened |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | | Mining is carried out as per approved Modified Mining Plan as far as possible. | |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--------------|--|---|
| 3a | Number of pit proposed for production | 2 | 1 | Central block awaiting Stage-II clearance |
| 3b | Quantity of ROM mineral production proposed | 50,40,000 Te | 38,68,060 Te | Mining in only Meghahatuburu block as Stage-II FC for Central block awaited |
| 3с | Recovery of sailable/usable mineral from ROM production | 50,40,000 Te | 3811932 T (1105467 T- Lump & 2706465 T Fines) | (Lump & Fines) Central block not opened. |
| 3d | Quantity of mineral reject generation | NIL | 19302 Te | As Slime stored inTailing dam |
| 3e | Grade of mineral rejects generation and threshold value declared. | NA | < 45 %; Gangue> 9 % | < 45 %; Gangue> 9 % |
| 3f | Quantity of sub grade mineral generation. | 360000MT | 3062750MT | |
| 3g | Grade of sub grade mineral generation | N.A | 45% Fe. | Sub-grade blended with Ore in the Mines pit |
| 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. | Proposed and to be carried out. | Proposed and carried out. | |
|----|--|--|--|--|
| 3j | Provision of drilling and blasting in mineral benches | Wet drilling and Use of delay detonators(NON EL) | Wet drilling and Use of delay detonators(NONEL) | |
| 3k | Provision of mining machineries in mineral benches | Dumpers & Excavators | Dumpers & Excavators | |
| 31 | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | 10 mts | 10 mts | Yes |
| 3m | Total area covered under excavation/pits | 330.02ha(combi ned with Kiriburu Mine) | 65.00 ha | For Meghataburu Mine. |
| 3n | Ore to OB ratio for the pit/mine during the year. | | 1:0.80(Excluding Central Block) | Stage II Forest Clearnace not granted yet. |
| 30 | Total area put in use under different heads at the end of year | 916.09ha(Combined with Kiriburu Mine) | 255.04 На | For Meghataburu Mine. |
| 3p | Production of ROM mineral during the last five year period as applicable | 2013-14: | Production (T) ROM Year- 2012-13: 4225320MT, 2013-14: 4426065MT, 2014-15: 3673080MT, 2015-16: 3737160MT, 2016-17: 3868060MT. | Stage II Forest Clearance for Central block awaited from MoEF & CC hence production level less |
| 3q | General remarks of inspecting officers on method of mining | | Mining is carried out as per approved Modified Mining Plan as far as possible. | |

etc.

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|------------|--|-------------------------|---|---|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | 80,70,000 T | 30,62,750 Te | Backfilling in mined out pit |
| 4b | Location of topsoil, OB and mineral reject dumps | No external Dumping | Backfilling in mined out pit | Mined out pit 5.68 Ha in South portion of pit |
| 4c | Number of dumps within lease area and outside of lease area | 8 | 8 | Earmarked Dump area (Within Lease) |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Out side the pit limit. | Out side the pit limit. | |
| 4e | Number of active and alive dumps. | 1 | 1 | |
| 4f | Number of dead dumps. | 8 | 8 | |
| 4 g | Number of dumps established. | 5 | 5 | Stablized by afforestation |
| 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 | Around the dumps | 1500 m | All along the bottom of Waste dump |
| 4j | Number of settling ponds | One | One | |
| 4k | Specific comments of inspecting officer on waste dump management | | Mining is carried out as per approved Modified Mining Plan as far as possible. | |

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. | 11.8 На | 5.68 На | Material fully extracted & obtained permission |

| 5b | Area under backfilling of mined out area | 11.8 На | 5.68 На | (2010-15) |
|----|---|--|--|---------------------------------------|
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Top soil to be generated fro Central Block | Nil | Stage II Forest Clearance awaited. |
| 5d | Total area fully reclaimed and rehabilitated | 11.8 На | 5.50 На | Reclaimed by backfilling |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | | Mining is carried out as per approved Modified Mining Plan as far as possible. | |

Progressive Mine Clousre Plan:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--|-------------|---|
| ба | Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2). | Yes | Yes | |
| 6b | Area available for rehabilitation (ha) . | i) 11.8 Haii) Nospecificiii) NoSpecific. | і) 5.68 На | 1,500 Plantation done in waste dump area- 1.5 ha , matured backfilled area 1 Ha and in township area (safety zone). |
| 6c | afforestation done (ha). | 1000nos. | 2500nos. | Afforestation done in 1 ha of matured Backfilled area . |
| 6d | No. of saplings planted during the year | 1000nos. | 2000nos. | |
| 6e | Cumulative no .of plants | 2000nos. | 4500nos. | |

| 6f | Any other method of rehabilitation | | Backfilling of mined out area is going on. About 2.77ha. area is under waste disposal. |
|----|--|----------------|--|
| 6g | Cost incurred on watch and care during the year | Rs. 8.07crores | Rs.3lacs. approx. |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | 5.21ha. | 2.77ha |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | 5.21ha. | 2.77ha. |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area | 1000nos. | 1000nos. |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | Not Planned. | Not applicable. |

| 61 | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | a modern athletic track | |
|--------|---|---------------------------------|---|
| бm | Compliance of rehabilitation of waste land within lease (i)afforestation | nil | N.A. |
| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | nil | N.A. |
| 60 | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | nil | N.A. |
| бр | Compliance of environmental monitoring (core zone and buffer zone) | Yes, 4 stations quarterly | Yes, 4 stations quarterly |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | | Mining is carried out as per approved Modified Mining Plan as far as possible. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--------------------|--|---------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Average 62.50 % | 32732.85 T 58-60% 1418992Te, 60-62 Fe% 1677622Te, 62-65 Fe% 253477.30 Te Above 65 % | |

| 7b | Method of grade- wise mineral sorting i.e. manual or mechanical. | Mechanical | Mechanical | |
|----|--|---------------|--|------------------|
| 7c | Different grade of mineral sorted out at mines. | Not specific. | 58-60% 60-62 Fe% | Blended at Mines |
| 7d | Any beneficiation process at mines . | Yes | Yes | |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | | Mining is carried out as per approved Modified Mining Plan as far as possible. | |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|----------------------------------|---|--|
| 8a | Separate removal and utilization of topsoil (Rule 32) | be generated | Mining carried out in North Block only. | Stage II Forest Clearance awaited for Central block. |
| 8b | Concurrent use or storage of topsoil | For plantation | Not applicable as top soil not generated. | |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | 8 | 8 | |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Backfilling of Mined out area | Backfilling of Mined out area | Under progress |

| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Backfilling of Mined out area | Backfilling of Mined out area | |
|----|---|--|--|---|
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | Cumulative no. of Plants already planted 330000nos. Additional 2000nos. to be planted. | Cumulative no. of Plants already planted 330000nos. Additional 4500nos. planted. | |
| 8g | Survival rate | 80% | 90% | |
| 8h | Water sprinkling on roads to control airborne dust | Yes | Yes | 28 KL Water sprinkler& permanent sprinkler along permanent haulroad |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | | Mining is carried out as per approved Modified Mining Plan as far as possible. | Aesthetic beauty is Good & Well maintained. |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|---|---|---------|
| 9a | Status of submission of Monthly and Annual returns | Submitted up | Monthly Return Submitted up to September, 2017 Annual Return submitted up to 2016-17 | |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Mining Engineer: Sri Ram Singh,B.Tech(m ining engg)Geologist : Dr.Manoj Kumar,M.Sc(Geo) Manager:Sri Kamlesh Rai.B.Tech(min ing engg) | | |

| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | bilitated area | Excavated area(Pit) - 65.00 Ha Waste Dump -24.00 Ha Infrastructure- 11.34 Ha Roads- 28.70 Ha Plant Mineral storage railway-126.0ha Reclaimed/rehabilitated area 1ha. | (Only of MIOM) Afforested-12 Ha in Waste Dump |
|----|--|---|--|---|
| 9d | Scrutiny of Annual return on afforestation | 4500trees planted and survival rate is 90%. | Found correct. | (Only of MIOM) Afforested-12 Ha in Waste Dump |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | 3062750 tonnes,Grade 45% Fe | Found Correct. | |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | 77814MT,ROM | Found Correct. | |

| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | | Found Correct. | O.K |
|----|---|---|--|-----------|
| 9h | Scrutiny of Annual return on fixed assets | | Not corrrect. Fixed asset should be of about Rs 155 Crores approx. | |
| 9k | Scrutiny of Annual return on mining machineries | Shovel (Hydraulic) 9.5cum 4no.,Shovel (Hydraulic) 4.5cum 2no.,Dumper 100Te. 7nos.,Dumper 50Te. 2nos.,,Dozer 410H.P. 7no.,Motor Grader 1no., Front End Loader 3.7cum. 1no., Back Hoe 1.5cum. 2 nos.,Back Hoe 1.2cum. 1 no., Drill 150mm,4 no., | Found correct. | Submitted |

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

| Violation observed | | | Show couse position | | |
|--------------------|------------|------------|---------------------|----------|-------------------------|
| Rule 1 | 10. | Issued on | Compliance on | Rule NO. | Issued on Compliance on |
| MCDR17 | Rule 11(1) | 27/11/2017 | | | |
| MCDR17 | Rule 35(2) | 27/11/2017 | | | |
| MCDR17 | Rule 37(5) | 27/11/2017 | 25/01/2018 | | |

Date: (B.P KERKETTA)

Indian Bureau of Mines