

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

Mining Plan Modification REPORT

Kolkata regional office

Mine file No : KOL/JHK/SB(W)/Fe(N-9)

Mine code : 30BHR27024

- (i) Name of the Inspecting : **K004**) **B.P KERKETTA**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri R.P. Mali, Agent & Mr N K Srinivas Rao, Mine Mana
Official with
Designation
- (iv) Date of Inspection : 11/06/2019
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **NOAMUNDI**
- (b) **Registration NO.** : **IBM/4376/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **JHARKHAND**
- District : **SINGHBHUM (WEST)**
- Village : **NOAMUNDI**
- Taluka : **NOAMUNDI**
- Post office : **NOAMUNDI**
- Pin Code : **833217**
- FAX No. : **06596 233706**
- E-mail : **noaoprn.grp@tatasteel.com**
- Phone : **06596 233746**
- (f) **Police Station** : **NOAMUNDI**
- (g) **First opening date** : **01/06/1925**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **PO:NOAMUNDI.**
correspondance **DIST:WEST SINGHBHUM.**
JHARKHAND.
3. (a) **Lease Number** : **BHR0077**
- (b) **Lease area** : **1160.36**
- (c) **Period of lease** : **30**
- (d) **Date of Expiry** : **31/12/2011**
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : TATA STEEL LIMITED
SINGHBHUM (EAST)
JHARKHAND
Phone:
FAX :

Owner : T. V. NARENDRAN
JAMSHEDPUR SINGHBHUM
(WEST) JHARKHAND
Phone: 0657-2145625
FAX : 0657-2424098

Agent : R.P.MALI
NOAMUNDI IRON MINE TATA
STEEL LTD,P.O.NOAMUNDI
DIST. SINGHBHUM
WEST,JHARKHAND SINGHBHUM
(WEST) JHARKHAND
Phone: 9238003485
FAX :

Mining Engineer

Name : Mr.N.K.Srinivas Rao,Full Time
Qualification : Diploma in Mining
Appointment/ : 07/06/2019 29/07/2019
Termination date

Mining Engineer

Name : Dipak Bahera,Full Time
Qualification : B.tech.(Mining)
Appointment/ : 29/07/2019
Termination date

Manager

Name : Mr. N.K. Srinivas Rao
Qualification : Diploma(Mining)
Appointment/ : 07/06/2019 29/07/2019
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Existing rule 11 MCDR1988	16/02/1992
		Mining Scheme rule 12 MCDR1988	09/09/1996
		Mining Scheme rule 12 MCDR1988	09/11/2001
		Modif.approved Mining Scheme	08/06/2004
		PMCP under 23B(2) for MS	28/01/2006
		Mining Scheme rule 12 MCDR1988	13/10/2006
		Mining Scheme rule 12 MCDR1988	28/01/2011
		Renewal under rule 24 MCR1960	31/01/2011
		Modif.of approved Mining Plan	31/03/2015

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	60	15	50 boreholes were in forest area. forest clearance awaited
1b	Exploration over lease area for geological axis 1 or 2		680 ha	Area explored up to G2 level area
1c	Exploration Agencies and Expenditure in lakh rupees during the year	150 lakhs	22 lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2		480 ha	386 ha in non-mineralised area
1e	Balance reserve as on 01/04/20		150.74 million tonnes	
1f	General remarks of inspecting officers on geology, exploration etc		For want of forest clearance the planned exploration could not be completed.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Hill 3 & 4 Hill 5 & 6 Western Pit	Hill 3 & 4 Hill 5 & 6 Western Pit	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	yes	
2c	Stripping ratio or ore to OB ratio	1:0.42	1:0.44	
2d	Quantity of topsoil generation in m3	NIL	NIL	
2e	Quantity of overburden generation in m3	1689000	1400860	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Mine development is carried out as per approved Modified Mining Plan as far as possible.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	3	3	
3b	Quantity of ROM mineral production proposed	10 Million Tonnes	7.97 Million tonnes	
3c	Recovery of sailable/usable mineral from ROM production	80% of ROM fed in Wet plant & full recovery in dry Plant.	80% of ROM fed in Wet plant & full recovery in dry Plant.	
3d	Quantity of mineral reject generation	0.607 Million tonnes	0.650 Million tonnes	
3e	Grade of mineral rejects generation and threshold value declared.	58 > Fe % =45	>or Fe 51.35%	
3f	Quantity of sub grade mineral generation.	0.607 Milliontonnes	0.650 Milliontonnes	
3g	Grade of sub grade mineral generation	58 > Fe % =45	>or Fe 51.35%	
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.	Slime & Jig tailings beneficiation is proposed.	Not done	Meeting with technology suppliers for project objective not carried out.
3j	Provision of drilling and blasting in mineral benches	Yes	Yes	

3k	Provision of mining machineries in mineral benches	Excavator 5.9cum,Excavator or 5.7cum, Loader 9cum, Front end loader 5.75cum,100Te Dumper 8nos., Drill,Dozer,Grader,Water Sprinkler,Main tenance Van etc.	Excavator 5.9cum,Excavator 5.7cum, Loader 9cum, Front end loader 5.75cum,100Te Dumper 8nos., Drill,Dozer,Grader,Water Sprinkler,Maintenance Van etc.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	12m Height & 25m width,While in ultimate stage bench width shall reduce to 12m.	12m Height & 25m width
3m	Total area covered under excavation/pits	Mining - 447.10 Ha Mining - 447.10 Ha	Mining - 377.005 Ha
3n	Ore to OB ratio for the pit/mine during the year.	1:0.42	1:0.44
3o	Total area put in use under different heads at the end of year	OB/Rejects/tailings - 82.34 Ha Infrastructure - 18.68 Ha Roads - 8.09 Ha Green Belt - 8.14 Ha Mineral Separation Plant - 19.79 Ha Township Area - 145.11 Ha	OB/Rejects/tailings - 152.435 Ha Infrastructure - 17.364 Ha Roads - 8.09 Ha Green Belt - 8.14 Ha Mineral Separation Plant - 19.79 Ha Township Area - 145.11 Ha others (Magazine,Waterharvesting,ETP)-1.326 Ha
3p	Production of ROM mineral during the last five year period as applicable	2014-15 10 MT 2015-16 10 MT 2016-17 10 MT 2017-18 10 MT 2018-19 10 MT	2014-15 5.37 MT 2015-16 3.95 MT 2016-17 4.74 MT 2017-18 6.2 MT 2018-19 7.97MT

3q General remarks of inspecting officers on method of mining etc.

The exploitation of Iron Ore is carried out as per approved Modified Mining Plan as far as possible. Production during last year was less as compared to the targetted production ,but was more as compared to year before last year.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate stacking of OB and Mineral	Separate stacking of OB and Mineral	
4b	Location of topsoil, OB and mineral reject dumps	Waste Dump 1 E: 11480 - 11900 N: 11485 - 12060 Waste Dump 2 E: 12550 - 12810 N: 12190 - 12510 Subgrade Dump 1 - 12330E - 12900E 12405 N - 13182N	Waste Dump 1 E: 11485- 11900 N: 11490- 12013 Waste Dump 2 E: 12555 - 12808 N: 12256 - 12510 Subgrade Dump 1 - 12358E - 12900E 12410 N - 13182N	
4c	Number of dumps within lease area and outside of lease area	3	3	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside Ultimate pit limit	Outside Ultimate pit limit	
4e	Number of active and alive dumps.	3	3	
4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	Nil	Nil	

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	Retaining wall 450mx1mx1m, Garland drain 450mx1mx1m	Retaining wall 986mx1mx1m, Garland drain 986mx1mx1m
4j	Number of settling ponds	1nos	2nos
4k	Specific comments of inspecting officer on waste dump management		Solid Waste Management (Dumping) 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.	NA	NA	No part of the mine has reached to ultimate pit limit, Hence, there is no proposal of backfilling.
5b	Area under backfilling of mined out area	NA	NA	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL	NIL	
5d	Total area fully reclaimed and rehabilitated	NA	NA	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		No part of the mine has reached to ultimate pit limit, Hence, there was no proposal of 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).	Timely submission	Submitted in time	
6b	Area available for rehabilitation (ha) .	NIL	NIL	
6c	afforestation done (ha).	NIL	NIL	
6d	No. of saplings planted during the year	NIL	NIL	
6e	Cumulative no .of plants	NIL	NIL	
6f	Any other method of rehabilitation	NIL	NIL	
6g	Cost incurred on watch and care during the year	NIL	NIL	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NIL	NIL	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NIL	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NIL	NIL	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL	

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	5000nos.(Waste Dump2& Green Belt)	5762nos.(Waste Dump2& Green Belt) 3734nos.Outside mining Lease area. Survival rate 89% & 76% for plantation within lease and Outside lease respectively.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	0.19ha. Safety Zone
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation	Plantation
6p	Compliance of environmental monitoring (core zone and buffer zone)	As per standard	Within limit
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		The PMCP compliance and progressive closure operations are 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	ROM Production - 10 Million Te	ROM Production - 7.97 Million Te Total Dispatch - 7.37 Million Te	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	

7c	Different grade of mineral sorted out at mines.	Fe % >and = 45%	Fe % >and = 45%
7d	Any beneficiation process at mines	Yes	Yes
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Mineral conservation is taken care of and mineral beneficiation is practised as per approved Modified Mining Plan.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Nil	Nil	
8b	Concurrent use or storage of topsoil	Nil	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for Waste and Sub-grade	Separate dumps for Waste and Sub-grade	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	To be used for making embankment of proposed slime dam at Hill no.5.For bench floor levelling,main tenance of haul road& berms,making ramps & haul roads.	The overburden generated is being used for preparation of haul road.	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	2 ha	2.11 ha
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	5000 saplings(WML)	5762 saplings(WML)& 3734 saplings (OML)
8g	Survival rate	Not Proposed	89%(Within Mining Lease),76% (Outside Mining Lease)
8h	Water sprinkling on roads to control airborne dust	Mobile water sprinkler	Mobile water sprinkler
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		The aesthetic beauty is very good in and around the mines area.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	F1 H1 PMCP Self-Appraisal Sustainable Development Framework report	F1 H1 PMCP Self-Appraisal Sustainable Development Framework report were submitted in time.	

- 9b Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager Mining Engineer & Manager : Sri Dipak Behera, B.Tech(Mining) , Geologist: Dr.Indranil Saha, MSc.(Geo) Sri N.K.Srinivas Rao, Dip-in-mining has been appointed as Mining Engineer & Manager: ,w.e.f. 07/06/2019, which is a violation of Rule 55(1)(3)(iii) of MCDR 2017. Notice of appointment in Form-H has also been received vide letter no. GM/PL/247/134/19 dated 20/06/2019. Violation of Rule 55(1)(3)(iii) of MCDR 2017 is being sent to the lessee.
- 9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. Mining - 377.005 Ha Waste disposal area 32.37ha. Plant/ building & road area 25.454ha. Area for other purpose(Mineral storage, Tailing Pond, Effluent Treatment plant, Township area, Magazine - 286.291 Ha Found correct.
- 9d Scrutiny of Annual return on afforestation 5762 Saplings were planted Within lease. & 3734 saplings planted Outside mining lease. Found correct.
- 9e Scrutiny of Annual return on mineral reject generation (Grade and quantity) 6.50 Lakh Tonnes Grade: Fe % (> and =45 & < 58) Found correct.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Production Found correct. - 7.97 MT, Closing Stock - 0.129 MT Graded Ore, Opening Stock Lumps 60744.83Te(65% and above),Fines 363353.701Te(65% and above) Closing Stock ,Lumps 85592.747Te(65 % and above),Fines 561323.531Te(65% and above)	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The Sale value Found Correct. has been given as nil since, it is a captive mine. The Ex-Mine Price & Cost of production has been given as Rs 1322.33/Te.	
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets - Rs 7079694550/-	Found Correct.
9k	Scrutiny of Annual return on mining machineries	DUMPER 100Te 12nos. SHOVEL 5.900 CUM 4 nos. (HYDRAULIC) BLAST HOST DRILL 150.000 MM 3 nos. DOZER 410.000 HP 2 DOZER 452.000 HP 1 MOTOR GRADER 268.000 HP 1 FRONT END LOADER 9.5 CUM 1 WATER TANKER 28000.000 LITRE 1no. CRANE 75.000 TONNE 1 CRANE 15.000 TONNE 1	Instead of WATER TANKER 28000.000 LITRE ,WATER TANKER 50.000 LITRE has been written.

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
MCDR17	Rule 11(1)	02/08/2019			
MCDR17	Rule 35(2)	02/08/2019			
MCDR17	Rule 55(1)(3)	02/08/2019			

Date :

(B.P KERKETTA)

Indian Bureau of Mines