

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR39/BBS

Mine code : 30ORI08035

- (i) Name of the Inspecting : **RAM**) **RAMKISHAN R**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sri Rahul Kishore, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 22/12/2020
- (v) Prev.inspection date : 23/12/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KATAMATI**
- (b) **Registration NO.** : **IBM/4376/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : KATAMATI
- Taluka : BARBIL
- Post office : DEOJHAR
- Pin Code :
- FAX No. : 06596233706
- E-mail : rsgarbi@noa.tatasteel.com,l
- Phone : 06596233706
- (f) Police Station : Barbil
- (g) First opening date : 01/05/1934
- (h) Weekly day of rest : SUN
2. Address for : VILL. KATAMATI
correspondance P.S JODA
DIST.KEONJHAR.PIN: 758034
3. (a) Lease Number : ORI0107
- (b) Lease area : 403.32
- (c) Period of lease :
- (d) Date of Expiry : 31/03/2030
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : TISCO
Bombay House 24, Homy Mody
Street Mumbai MUMBAI
(SUBURBAN) MAHARASHTRA
Phone:
FAX :

Owner : T V NARENDRAN
TATA STEEL LIMITED
JAMSHEDPUR, POST-BISTUPUR
SINGBHUM EAST, JHARKHAND
SINGHBHUM (EAST) JHARKHAND
Phone: 06572431818
FAX : 0657-2431818

Agent : R P MALI
M/S TATA STEEL LIMITED
JHARKHAND, WEST SINGHBHUM
NOAMUNDI SINGHBHUM (WEST)
JHARKHAND
Phone: 9238003485
FAX : 06596233706

Mining Engineer

Name : RAHUL KISHORE, Full Time
Qualification : B.E MINING
Appointment/ : 07/01/2017
Termination date

Geologist

Name : ASIM CHATTERJEE, Full Time
Qualification : MSC APPLIED GEOLOGY), M TECH EARTH SCIEN
Appointment/ : 01/05/2017
Termination date

Manager

Name : RAHUL KISHORE
Qualification : B.E MINING
Appointment/ : 07/01/2017
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	06/07/2001
		Modif.of approved Mining Plan	19/07/2007
		Mining Scheme rule 12 MCDR1988	29/09/2009
		Mining Scheme rule 12 MCDR1988	15/04/2013
		Modif.approved Mining Scheme	30/08/2016
		MS modif under MCR 1960	09/06/2017
		MP review under 17(1) MCR 2016	09/11/2017
		Modif.approved Mining Scheme	13/07/2020

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such specific proposal.	However 58 nos of boreholes were proposed as a part of exploration during the year 2019-20.	
1b	Exploration over lease area for geological axis 1 or 2	58 nos of boreholes were proposed as a part of exploration during the year 2019-20.	9 nos of boreholes were drilled.	violation observed and communicated to lessee letter dated 12.01.2021
1c	Exploration Agencies and Expenditure in lakh rupees during the year		Rs.42.7 lakh	
1d	Balance area to be explored to bring Geological axis in 1 or 2	98 nos of boreholes were proposed to brought area under G1/G2 level during the plan period i.e. till 2019-20.	9 nos of boreholes were drilled.	violation observed and communicated to lessee letter dated 12.01.2021
1e	Balance reserve as on 01/04/20	As per the approved document dated 13.07.2020, the iron ore reserves are 83.84 mil.t and resources are 30.59 mil.t.	due to depletion/addition over the period of time the updated reserves/resources as on dated 01.04.2020 are the iron ore reserves are 83.84 mil.t and resources are 30.59 mil.t.	
1f	General remarks of inspecting officers on geology, exploration etc		exploration has not been carried during the year 2019-20, as proposed.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t. lease area	pit-I is proposed for development during the year 2019-20.	development is carried out in pit-I.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	no top soil generation is envisaged, separate benches in Ob and mineral are proposed.	seperate benches in OB and mineral are maintained.	
2c	Stripping ratio or ore to OB ratio	1:0.035 t/cu.m.	1:0.1 t/cu.m.	due to irregular nature of ore deposit.
2d	Quantity of topsoil generation in m3	Not applicable	Nil	
2e	Quantity of overburden generation in m3	280000 cu.m. during the year 2019-20.	505548 cu.m.	due to irregular nature of ore deposit.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		development is carried out by opencast mining method as propsoed.	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 no during the year 2019-20.	1 no	
3b	Quantity of ROM mineral production proposed	8 mil.t. during the year 2019-20.	4.82 mil.t.	due to less demand at captive steel plant.
3c	Recovery of sailable/usable mineral from ROM production	7 mil.t. of ore and 1 mil.t. of mineral reject.	4.49 mil.t. and 0.328 mil.t.	
3d	Quantity of mineral reject generation	1 mil.t.	0.328 mil.t.	

3e	Grade of mineral rejects generation and threshold value declared.	+45-58% Fe	+45-58% Fe
3f	Quantity of sub grade mineral generation.	Not applicable	Nil
3g	Grade of sub grade mineral generation	Not applicable	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised.	Mechanised.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not applicable	Nil
3j	Provision of drilling and blasting in mineral benches	drilling and blasting is proposed.	carried out.
3k	Provision of mining machineries in mineral benches	shovel and dumper combination is proposed for excavation and hauling.	shovel and dumper combination is deployed for excavation and hauling.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	12 m.	maintained.
3m	Total area covered under excavation/pits	154.91 ha.	79.602 ha
3n	Ore to OB ratio for the pit/mine during the year.	1:0.035 t/cu.m.	1:0.1 t/cu.m.

3o	Total area put in use under different heads at the end of year	total area put to use under different heads at the end of plan period i.e. 2022-23 is 241.1946 ha.	144.936 ha
3p	Production of ROM mineral during the last five year period as applicable	2015-16: 8 mil.t. 2016-17: 7.55 mil.t. 2017-18: 8 mil.t. 2018-19: 6.8 mil.t. 2019-20: 8 mil.t.	2015-16: 3.8 mil.t. 2016-17: 5.74 mil.t. 2017-18: 7.3 mil.t. 2018-19: 5.02 mil.t. 2019-20: 4.82 mil.t.
3q	General remarks of inspecting officers on method of mining etc.		production is carried out from pit-I by opencast mining method as proposed.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	no topsoil generation is envisaged. seperate dumping of waste and mineral rejects are proposed.	seperate dumping of waste and mineral rejects are carried out.	
4b	Location of topsoil, OB and mineral reject dumps	waste dump no.2	waste dump no.2	
4c	Number of dumps within lease area and outside of lease area	1 no of waste dump with in lease area during the year 2019-20.	1 no of waste dump within lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side UPL	Out side UPL	

4e	Number of active and alive dumps.	1 no.	1 no.
4f	Number of dead dumps.	Not applicable	Nil
4g	Number of dumps established.	Not applicable	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	provided.
4i	Length of Retaining wall or garland drain all along dumps	465 m	1150 m
4j	Number of settling ponds	Not applicable	Nil
4k	Specific comments of inspecting officer on waste dump management		waste dump management is carried out as proposed.

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.	Area not matured for backfilling.	Not applicable	
5b	Area under backfilling of mined out area	Not applicable	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable.	Nil	
5d	Total area fully reclaimed and rehabilitated	Not applicable	Nil	

5e General remarks of inspecting officers on backfilling and reclamation etc. Area not matured for backfilling.

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).	PMCP report to submitted. submitted before 1 st July.		
6b	Area available for rehabilitation (ha) .	Not applicable	Nil	
6c	afforestation done (ha).	1 ha	1 ha	
6d	No. of saplings planted during the year	2500 nos	3745 nos	
6e	Cumulative no .of plants		14866 nos	
6f	Any other method of rehabilitation	Not applicable	Nil	
6g	Cost incurred on watch and care during the year	Rs. 1.5 lakh	Rs.4.94 lakh	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not applicable	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not applicable	Nil	

6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not applicable Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not applicable Nil	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Nil	plantation
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Nil	0.04 ha
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Nil	394 nos saplings planted.
6p	Compliance of environmental monitoring (core zone and buffer zone)	periodical environmental monitoring of core zone and buffer zone are proposed.	carried out.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	PMCP measures were carried out as propped.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise sorting of mineral is proposed.	grade-wise sorting of mineral is carried out.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	mechanical	mechanical	
7c	Different grade of mineral sorted out at mines.	+45-58% Fe and +58% Fe	+45-58% Fe and +58% Fe	
7d	Any beneficiation process at mines	Not applicable	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		grade-wise sorting of mineral is carried out.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable	Nil	

8b	Concurrent use or storage of topsoil	Not applicable Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	seperate dumps for waste and mineral rejects are proposed.	seperate dumps for waste and mineral rejects are maintained.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	dump plantation is proposed.	carried out.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2500 nos	4139 nos
8g	Survival rate		85%
8h	Water sprinkling on roads to control airborne dust	water sprinkling on haul raods for dust supression is proposed.	carried out.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		aesthetic beauty in and around the mines area is maintained.

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and annual returns are to be submitted as per rule 45 of MCDR, 2017	submitted.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer 11, Diploma Mining Engineer 5, Geologist 1	found to be in order.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings: 79.602 ha, Used for waste disposal: 6.407 ha.	found to be in order.	
9d	Scrutiny of Annual return on afforestation	4139 nos	4139 nos	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	0.328 mil.t.	0.328 mil.t.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock is 1790575.118	found to be in order.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	production cost is Rs. 1257.44	Rs. 1257.44	
9h	Scrutiny of Annual return on fixed assets	Rs. 565281767	Rs. 565281767	
9k	Scrutiny of Annual return on mining machineries	SHOVEL (HYDRAULIC) 5.900 CUM 2, DUMPER 91.000 TONNE 5, BLAST HOST DRILL 150.000 MM 2, DOZER 410.000 HP 2, etc.,	found to be 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 :

(RAMKISHAN R)

Indian Bureau of Mines