

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-60/BBS

Mine code : 300RI08013

- (i) Name of the Inspecting : **CCHA**) **SHRI L H CHHANGTE**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sri T.K. Roy, DGM(Mines)
Official with
Designation
- (iv) Date of Inspection : 09/06/2015
- (v) Prev.inspection date : 12/03/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BOLANI**
- (b) **Registration NO.** :
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : ORISSA
District : KEONJHAR
Village : BOLANI
Taluka : BARBIL
Post office : BOLANI
Pin Code : 758037
FAX No. : 06767-30246
E-mail : NIL
Phone : 06767-60207
- (f) Police Station :
- (g) First opening date : 12/04/1960
- (h) Weekly day of rest : SUN
2. Address for : BOLANI ORES MINES, AT/PO: BOLANI
correspondance KEONJHAR DISTRICT
ORISSA
3. (a) Lease Number : ORI0102
- (b) Lease area : 1321.45
- (c) Period of lease : 20
- (d) Date of Expiry : 09/04/2010
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : STEEL AUTHORITY OF INDIA LIMITED
 PURNAPANI LIMESTONE MINE
 SUNDERGARH DISTRICT -770
 ORISSA SUNDARGARH ORISSA
 Phone:0661-728121
 FAX :

Owner : SAIL
 SUNDARGARH ORISSA
 Phone:
 FAX :

Mining Engineer

Name : N.P. PRAMANIK, Full Time
 Qualification : DEGREE IN MINING
 Appointment/ :
 Termination date

Geologist

Name : PETER DANG, Full Time
 Qualification : MSC GEOLOGY
 Appointment/ :
 Termination date

Manager

Name : R. CHATERJEE
 Qualification : FIRST CLASS MINES MANAGER CERTIFICATE HC
 Appointment/ : 30/06/1978
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	18/01/2001
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	25/10/2002
		Mining Scheme rule 12 MCDR1988	24/05/2007
		Renewal under rule 24 MCR1960	13/01/2010

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	None	
1b	Exploration over lease area for geological axis 1 or 2	Not specified	No work under this	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Departmental	As far as departmental except few specialised activities	
1d	Balance area to be explored to bring Geological axis in 1 or 2	95.68 ha	Remains the same as anticipated	
1e	Balance reserve as on 01/04/20	150.257 MMT	Same as projected	
1f	General remarks of inspecting officers on geology, exploration etc			There has been sufficient exploration work carried out in this mine

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	4 places	Developed in 4 places as proposed . Block F, G, D and Panposh areas	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Seperate benches in OB and Ores developed	
2c	Stripping ratio or ore to OB ratio	1:0.5	Same as calculated at 1:0.5	
2e	Quantity of overburden generation in m3	Specified	Actual was 3.5 MM CuM as against proposed of 5 MM CuM	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development has been found to be in commensurate with the projected production
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	4 nos	Actual development of 4 pits as proposed	
3b	Quantity of ROM mineral production proposed	5 MMT	Actual for the year was 4.5 MMT	
3c	Recovery of sailable/usable mineral from ROM production	90% of ROM	Actual turned out to be 85% only	
3f	Quantity of sub grade mineral generation.	15,00,000 MT	Actual Sub Grade produced for the year was 12,50,000 MT only (45-55% Fe)	
3h	Manual / Mechanised method adopted for segregating from ROM	Both manual and mechanised	Mostly mechanised method of seggregation in vogue	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Routine proposed	Routine sample studies carried out as well as need base also	
3j	Provision of drilling and blasting in mineral benches	Yes	Controlled blasting in vogue	
3k	Provision of mining machineries in mineral benches	Yes	Adequate machineries have been deployed in benches as well	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench dimensions specified in MP	10m high and 15-30m wide benches in vogue here in this mine	
3o	Total area put in use under different heads at the end of year	Specifics given in MP	Actual wasa Pits- 360.10 ha, Dumps- 14 ha, Roads - 24.36 ha, Township- 43.75 ha, Others - 15 ha	Land utilisation is found to be systematic and as per actual requirement
3q	General remarks of inspecting officers on method of mining etc.			Exploitation aspects have been found to be in a systematic order

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4b	Location of topsoil, OB and mineral reject dumps	Specifics given	Toatl 6 nos of dumps, 3 in Panposh itself and one each in Blocks D, F and G	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Given	All dumps are well within the UPL	
4e	Number of active and alive dumps.	Given	Out of 6 dumps 4 are active and the other 2 dumps are partially dead	
4h	Whether Retaining wall or garland drain all along dumps are there.	Specific proposal given	Actual total length of Retaining walls along the bases of the 6 dumps have been reported to be 1850m approximately	
4j	Number of settling ponds	Given	A large Tailing pond is being maintained at the north eastern side just outside the ML	
4k	Specific comments of inspecting officer on waste dump management			There has been NO WASTE management problem in this mine

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.	NIL	No area has been fully exhausted till date	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL		Practically No top soil has been generated in this mine for the last so many years as this is an old mine
5d	Total area fully reclaimed and rehabilitated	Not specified	Partial and phase reclamation has been in practice in this mine	

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).		Annual Return of PMCP has been submitted on a regular basis	
6b	Area available for rehabilitation (ha) .		None	
6e	Cumulative no .of plants	Within ML = 800000 plants and Outside ML = 120,000 plants	Actual as on date of inspection was 700000 plants within ML and 110000 Plants Outside ML	
6f	Any other method of rehabilitation	Not specified	Slime pond being constructed	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Scrutinised	Found satisfactory	

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Scrutinised	Found satisfactory	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Routine monitoring of various environmental parameters being carried out in this mine	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			All proposals under PMCP has been found to be complied with satisfactorily

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Specified	Almost all ROM has been despatched	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Both	Both manual and mechanical sorting of grades of ores in vogue here	
7c	Different grade of mineral sorted out at mines.	Proposed	Threshold value being - 45% Fe, 45-55% Fe is considered Sub grade, but + 58% Fe ores have been despatched only from this mine	
7d	Any beneficiation process at mines .	Mechanical	Both dry and wet processes have been in vogue in this mine	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No problem with conservation of mineral in this mine
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	None	Practically NO TOP SOIL here	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Seperate dumps for OB, Top soil ans fines (rejects)	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Non specified	There has been partial reclamation in this mine	No area has been matured for full reclamation in this mine
8g	Survival rate	Proposed Survival rate is 80% within ML and 70% outside ML	Actual is 70% and 55% respectively	
8h	Water sprinkling on roads to control airborne dust	Yes proposed	Both by means of water tanker and fixed line sprinkling are in vogue in this mine	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The aesthetic beauty of the area has not been duly affected by this mining

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Yes	Submitted on a regula r basis	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	All statutory employment has been made in this mine	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	land use pattern has been judiciously followed as per proposals	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Scutinised	Followed satisfactorily	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Scrutinised	Found matching with field observations	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Scrutinised	Found in order	
9k	Scrutiny of Annual return on mining machineries	Scrutinised	Adequate machineries have been deployed in this mine	

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 :
(SHRI L H CHHANGTE)

Indian Bureau of Mines