

MCDR INSPECTION REPORT**General**

S.N.	Particulars	Details
1	Name of the Mine Date of Inspection: Name of Inspecting Officer & Accompanying person	Boria Tibbu Iron Ore Mine of M/S Godawari Power & Ispat Ltd,03.02.2020, Shri R K Das & Shri Gangaram Verma(Agent Mine),Inspection for processing Review of Mining Plan
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	110.00 Ha
3	Mine code	30CHG15002
4	IBM Registration Number under rule 45 of MCDR,1988	IBM/4243/2011
5	Name of the Lease, Address, Phone, email and fax number	Boria Tibbu Iron Ore Mine Village:Boria, Taluka: Manpur State: Chhattisgarh FAX : 0771-4082709, 4082765 Email id vinod.pillai@hiragroup.com
6	Village	Boria
7	Taluka/Mandal	Mohla
8	District	Rajnandgaon
9	Pincode	491229
10	State	Chhattisgarh
11	Post Office	Khadgaon
12	Nearest Police Station	Khadgaon
13	Nearest Railway Station	Dalli
14	Date of Grant of Mining Lease	15.03.2010
15	Date of Execution	15.03.2010
16	Date of opening of Mine	01.04.2014
17	Date of First Renewal, if applicable and its period & expiry	As per lease deed lease is for 20 years from 15.03.2010 but as per amendment in MMDR Act, 2015 lease will be upto 14.03.2060 but supplementary lease deed still not done.
18	Date of Second Renewal, if applicable and its period & expiry	Not applicable
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not applicable
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr Vinod Pillai B-7 Sahni Vihar, Raipur Phone -0771-4082706, fax – 0771-4057601 Email id vinod.pillai@hiragroup.com Appointment date 28.07.2009
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr Gangaram Verma Capital city phase 1 Saddu Raipur Phone No 07714082765 Email id gangaram.verma@hiragroup.com Appointment date 11.09.2019
22	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Mr H R Upate, C/O Boria Tibbu Iron Ore Mine Village:Boria, Taluka: Manpur State: Chhattisgarh FAX : 0771-4082709, 4082765 Email id vinod.pillai@hiragroup.com Date of appointment 01.05.2015

S.N.	Particulars	Details
23	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Mr H R Urate, C/O Boria Tibbu Iron Ore Mine Village:Boria, Taluka: Manpur State: Chhattisgarh FAX : 0771-4082709, 4082765 Email id vinod.pillai@hiragroup.com Date of appointment 01.05.2015
24	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Mr Kanwaljit Singh Dhaliwal (Geologist)
25	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in approval letter, if any.	24.05.2006
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.	23.03.2016
27	Mineral(s) granted in lease and approved for Mining	Iron Ore
28	Method of Mining (Opencast, Underground)	Open cast
29	Category (Fully Mechanised, Others or Manual)	Fully Mechanised
30	Captive/Non-Captive	Captive

Exploration

S.N.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	13	19	
1b	Exploration over lease area for Geological axis 1 or 2.	15	15	
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	- Rs. 45 Lakh	Kartikay Exploration & Mining Services (P) Limited Rs. 120 Lakh	
1d	Balance area to be explored to bring Geological axis in 1 or 2.	-	35.32	
1e	Balance reserves as on 01.04.2019	3.82 Mt (Excl. BMQ)	87.812 Mt (Incl. 80.553 Mt of BMQ Reserve/Resources)	Due to additional exploration and change in threshold value for Magnetite, Reserve/Resource has increased
1f	General remarks of Inspecting officer on geology, exploration etc.	The rocks belongs to the Bailadila group of rocks comprising BMQ, BHQ, Quartzite, Hematite, Magnetite, Lateritic ore, Limonitic soil and BHJ. Strike of the deposit varies from N100 to N135 degree and dip 50-80 degree. Total 67 nos core bore holes reported in lease area and broadly mineralized area cover under G1 & G2.		

Development

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	Forest Compartment 535 and 536	Forest Compartment 535 and 536	
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Yes	Yes	
2c	Stripping ratio or ore to OB ratio	1:0.15	1:3.29	
2d	Quantity of topsoil generation in m ³	NIL	Nil	
2e	Quantity of overburden generation in m ³	77190 (cum)	3594452 (tonnes)	
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	The development is more than proposal and huge OB dump as reported and BMQ. The future proposals for 20 core bore holes were proposed in 2021-22 & 2022-23		

Exploitation

S.N.	Item	Proposals	Actual Work	Remarks															
3a	Number of pits proposed for production	5	5																
3b	Quantity of ROM mineral production proposed (2018-19)	498855	387104.08																
3c	Recovery of Salable/usable mineral from ROM production	85%	85%																
3d	Quantity of mineral reject generation	Nil	Nil																
3e	Grade of mineral reject generation and threshold value declared	Nil	Nil																
3f	Quantity of sub-grade mineral generation	Nil	Nil																
3g	Grade of sub-grade mineral generation	Nil	Nil																
3h	Manual/Mechanized method adopted for segregation from ROM	Nil	Nil																
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Nil	Ore characterization study and pilot scale beneficiation test of Banded Magnetite Quartzite (BMQ) is under progress at CSIR IMMT Lab, Bhubaneswar	As reported Preliminary test results says approx. yield of 30%															
3j	Provision of drilling & blasting in mineral benches	Deep hole drilling by 110 mm dia Drill at 2.7 m burden & 2.8 m spacing, 83 mm cartridge slurry explosives for blasting	Deep hole drilling by 115 mm dia Drill at 2.5 to 3 m burden & 3 to 3.5 m spacing, 83 mm cartridge slurry explosives for blasting	NONEL is being used for initiation to reduce air overpressure and improve fragmentation															
3k	Provision of mining machineries in mineral benches	Excavators : 1.0 – 3.5 cu. M Tippers : 20t Drill : 110 mm Dozer , Grader, Water Tankers	Excavators : 1.8 – 3.5 cu. M Tippers : 25t/30t Drill : 115 mm Dozer, Grader, Water Tankers, Rock breakers, wheel loaders etc																
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes																
3m	Total area covered under excavation /pits	14.52 Ha	15.491 Ha																
3n	Ore to OB ratio for the pit/mine during the year	1 : 0.15	1 : 3.29																
3o	Total area put in use under different heads at the end of year	<table border="1"> <thead> <tr> <th>Type of land use</th> <th>Area Put into Use as per Approved Plan</th> <th>Existing Area put into use</th> </tr> </thead> <tbody> <tr> <td>Area of excavation</td> <td>14.52</td> <td>15.491</td> </tr> <tr> <td>Storage for top-soil</td> <td>-</td> <td>-</td> </tr> <tr> <td>Overburden dump</td> <td>4.15</td> <td>35.017</td> </tr> <tr> <td>Mineral storage</td> <td>-</td> <td>1.156</td> </tr> </tbody> </table>			Type of land use	Area Put into Use as per Approved Plan	Existing Area put into use	Area of excavation	14.52	15.491	Storage for top-soil	-	-	Overburden dump	4.15	35.017	Mineral storage	-	1.156
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S.N.	Item	Proposals	Actual Work		Remarks																				
		Infrastructure (Office, Rest shelter & pumping station)	0.12	1.901																					
		Roads	4.86	5.449																					
		Railways	-	-																					
		Tailing pond		-																					
		Effluent treatment plant		-																					
		Mineral separation plant		0.645																					
		Township area		-																					
		Sub-grade storage		-																					
		Sub Total	23.65	59.66																					
		Undisturbed Area	86.35	50.34																					
		Total Lease Area	110	110																					
3p	Production of ROM mineral during last five-years period, as Applicable	<table border="1"> <thead> <tr> <th rowspan="2">Year</th> <th colspan="2">ROM Production, Tonnes</th> </tr> <tr> <th>Proposal</th> <th>Actual</th> </tr> </thead> <tbody> <tr> <td>2014-15</td> <td>-</td> <td>71078.00</td> </tr> <tr> <td>2015-16</td> <td>297185</td> <td>201059</td> </tr> <tr> <td>2016-17</td> <td>377020</td> <td>212837</td> </tr> <tr> <td>2017-18</td> <td>465500</td> <td>401363</td> </tr> <tr> <td>2018-19</td> <td>498855</td> <td>389656</td> </tr> </tbody> </table>			Year	ROM Production, Tonnes		Proposal	Actual	2014-15	-	71078.00	2015-16	297185	201059	2016-17	377020	212837	2017-18	465500	401363	2018-19	498855	389656	
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3q	General remarks of inspecting officer on method of mining etc	The method of mining is broadly as per proposal.																							

Solid Waste Management-Dumping

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Yes	Separate dumps for OB, Subgrade mineral and fines have been maintained. Top soil generation is nil.	OB, Low grade materials, BMQ etc. are being stacked separately
4b	Location of topsoil, OB & mineral reject dumps	<u>Block A</u> <i>Western Part of the Quarry</i> <u>Block B</u> <i>NW boundary of hill slope</i>	<u>Block A</u> <i>Western Part of the Quarry</i> <u>Block B</u> <i>NW boundary of hill slope</i> <i>BMQ dumping in 10 Ha quarry area of Forest Compartment 536</i> <i>Temporary waste dumping near ML boundary pillar no. D of FC 535</i>	1. Higher stripping ratio than proposal in Modified Mining Plan. 2. Separate stacking of Banded Magnetite Quartzite for Mineral Conservation
4c	Number of Dumps within lease area and outside lease area	4	4	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Located outside the ultimate pit limit	Located outside the ultimate pit limit of last approved mining plan	

S.N.	Item	Proposals	Actual Work	Remarks
4e	Number of Active & Alive dumps	-	2	
4f	Number of dead dumps	-	2	
4g	Number of dumps Stabilised	-	1 under stabilization by plantation	
4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dump	-	1768 m od boulder crater wall/bunds	
4j	Number of settling ponds	Nil	Nil	
4k	Specific commends of inspecting officer on waste dump management	The dump is huge as OB generation is more than proposal therefore the protective measures is incorporated in Review of Mining Plan		

Solid Waste Management-Backfilling

S.N.	Item	Proposals	Actual Work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	-	Area not matured for backfilling	
5b	Area under backfilling of mined out area	-	-	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Top soil generation is Nil	Top soil generation is Nil	
5d	Total area fully reclaimed & rehabilitated	Nil	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Nil		

Progressive Mine Closer Plan

S.N.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly-Rule 23E(2). Details should be given in the format as given in Annexure-20	Yes	Yes	
6b	Management of worked/mined out benches			
	i) Area available for rehabilitation (Ha)	-	-	
	ii) Afforestation done (ha)	0.857	0.857	
	iii) No.of saplings planted during the year	2143	2143	
	iv) Cumulative no. of plants	-	28600	
	v) Any other specific method of rehabilitation	-	-	
	vi) Cost incurred on watch & care during the year	Rs. 6.45 Lakh	Rs. 6.45 Lakh	
6c	Compliance on reclamation and rehabilitation by backfilling	NA	NA	
	i) Voids available for backfilling (L*B*D)			
	ii) Void filled by waste/tailings			
	iii) Afforestation on the backfilling			
	iv) Rehabilitation by making water reservoir			
	v) Any other specific means			
6d	Compliance of Rehabilitation of waste land within lease	NA	NA	
	i) Afforestation	5000	5000	

	ii) Area rehabilitation iii) Method of rehabilitation	2 Plantation	2 Plantation	
6e	Compliance of Environment monitoring (core zone & buffer zone)	Complied	Complied	Monthly monitoring of Air, water, noise quality is being carried out by third party i.e. M/s ANACON Lab
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	Broadly Complied		

Mineral Conservation

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	-	Sorting of BHQ & Ore is carried out within lease	Screening of fines from BHQ is carried out by using power screens
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	-	Manual sorting is carried out for separation of BHQ with Ore	Screening of fines from BHQ is carried out by using power screens
7c	Different grade of mineral sort out at mine		Average grade of Ore is below 55%.	
7d	Any beneficiation process at mines	Nil	NA. Only crushing & Screening is carried out at Mines	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Low grade material is used by blending and as reported that large quantity of BMQ is produce and also occurs in deposit therefore proposal is there to setup beneficiation plant to recover ore from BMQ. Ore characterization study and pilot scale beneficiation test of Banded Magnetite Quartzite (BMQ) is under progress at CSIR IMMT Lab, Bhubaneswar		

Environment

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Nil	Nil	No topsoil is generated during the period
8b	Concurrent use or storage of topsoil	Nil	Nil	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Yes	Separate dumps for OB, Subgrade mineral and fines have been maintained	OB, Low grade materials, BMQ etc. are being stacked separately
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NA	NA	Bottom of ore couldn't be reached as the orebody continues upto 286 mRL
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil	Bottom of ore couldn't be reached as the ore body continues upto 286 mRL
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	No. of Plants : 625 Area : 0.25 Ha	No. of Plants : 5000 Area : 2.02 Ha	
8g	Survival rate	-	80%	

8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	During mine visit no such adverse impact observed.		

Compliance of Rule 45

S.N	Item	COMMENTS	Remarks
	Status of submission of Monthly and Annual returns	M.R. Submitted upto- Dec'19 A.R. submitted upto- 2018-19	

S.N	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes given	Shri Manoj Upate Mining Engineer & Manager, Shri Kawaljit Singh Dhaliwal Geologist	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes given	Covered under O/C working-14.463 ha., used for waste disposal-20.198 ha., Infrastructure- 9.172 ha.	
9d	Scrutiny of Annual return on afforestation	Within lease area 5000 nos reported		
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil		
9f	Scrutiny of Annual return on ROM stock and/or graded ore	461.24 Tons		
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-mine price for for lump and fines are Rs 2041/-		
9i	Scrutiny of Annual return on fixed assets	Rs 684256 reported		
9k	Scrutiny of Annual return on mining machineries		Excavators : 1.0 – 2.5 cu. M Tippers : 30t Drill : 115 mm Tankers, wheel loaders etc	

Details of Validations observed during current inspection and compliance position of earlier violation pointed out:- The last inspection of mine was done by Shri S kartikeye and during inspection the violation pointed out for site deviation of working and dumping under Rule 11(1) of MCDR,2017 is still not complied and for that that Review of Mining plan is submitted with incorporation of present status and after approval of document the same may be complied. During present inspection which was done for processing of Review of Mining Plan and no new violation pointed out.

Date:06.03.2020

Name: Rajesh Kumar Das
Designation: Senior Assistant Controller of Mines

File No.CHG/RNG/FE-2/NGP