

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

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/BGT/CU-1/NGP

Mine code : 14MPR01001

- (i) Name of the Inspecting : **K006**) **NARESH KUMAR KATARIYA**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : S/Sh N Shenoy (DGM, Mines) K Hansda (Mine Manager), PD
Official with
Designation
- (iv) Date of Inspection : 11-FEB-21
- (v) Prev.inspection date : 28-JUN-17

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MALANJKHAND**
- (b) **Registration NO.** : **14MPR01001**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Underground
- (e) Postal address :
State : MADHYA PRADESH
District : BALAGHAT
Village : KARAMSARA
Taluka : BAIHAR
Post office : MALAJKHAND
Pin Code : 481116
FAX No. : 07637-257038
E-mail : hcl_mcp@hindustancopper.cor
Phone : 257032
- (f) Police Station : malanjkhanda
- (g) First opening date : 01-JAN-78
- (h) Weekly day of rest : SUN
2. Address for : Malanj Khand copper project
correspondance Teh: Birsa Dist: Balaghat
State: MP
3. (a) Lease Number : MPR0781
- (b) Lease area : 480.1
- (c) Period of lease :
- (d) Date of Expiry : 31-MAR-20
4. Mineral worked : COPPER ORE Main

5. Name and Address of the

Lessee : M/S HINDUSTAN COPPER LIMITED
MALANJKHAND COPPER PROJECT
DISTT BALAGHAT MP BALAGHAT
MADHYA PRADESH
Phone:
FAX :

Owner : SK Bhattacharya
BALAGHAT MADHYA PRADESH
Phone:
FAX :

Agent : V.K singh
BALAGHAT MADHYA PRADESH
Phone:
FAX :

Mining Engineer

Name : P.D.BOHRRA, Full Time
Qualification : BE MINING
Appointment/ :
Termination date

Geologist

Name : Dr Bhakat, Full Time
Qualification : MSc Geology
Appointment/ : 01-JAN-19
Termination date

6. Date of approval of Mining	:	Renewal under rule 24 MCR1960	23-AUG-12
Plan/Scheme of Mining		MP modif under 17(3) MCR 2016	20-FEB-16
		MP modif under 17(3) MCR 2016	20-FEB-18
		MP modif under 17(3) MCR 2016	20-JAN-20

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	Not proposed	Not done	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	NA	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	
1e	Balance reserve as on 01/04/20		Balance reserve as on 01/04/2020: 122.000 X 1.31% Cu Million tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			As per geology of the ore and feasibility of working opencast working is almost exhausted. UG working mine development work on progress.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In Opencast and UG both	In Opencast and UG both	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes	
2c	Stripping ratio or ore to OB ratio	1: 0.91	1:1.69	

2d	Quantity of topsoil generation in m3	NIL	NIL	No topsoil available.
2e	Quantity of overburden generation in m3	18.75 Lakh m3	18.22 Lakh m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development of the opencast pit is done up to ultimate pit limit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit	One pit	
3b	Quantity of ROM mineral production proposed	2.7 million tonnes	2.54 million tonnes	
3c	Recovery of sailable/usable mineral from ROM production	2.7 million tonnes	2.54 million tonnes	
3d	Quantity of mineral reject generation	Not proposed	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	0.25% Cu	0.25% Cu	
3f	Quantity of sub grade mineral generation.	Not proposed	806685 T	
3g	Grade of sub grade mineral generation	0.35% Cu	0.342% Cu	
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.	Not proposed	NA
3j	Provision of drilling and blasting in mineral benches	Yes	Yes
3k	Provision of mining machineries in mineral benches	Yes	Yes
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	132.357 Hect	132.357 Hect
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.91	1: 1.69
3o	Total area put in use under different heads at the end of year	Mining area- 132.357 Waste Dump site - 137.381 Mineral storage - 6.063 Infra, admin buld -8.623 Road - 8.485 Mineral separation - 0.73 Other - 17.859 Undisturbed area - 168.672	Mining area- 132.357 Waste Dump site - 137.381 Mineral storage - 6.063 Infra, admin buld -8.623 Road - 8.485 Mineral separation - 0.73 Other - 17.859 Undisturbed area - 168.672

3p	Production of ROM mineral during the last five year period as applicable	2015-16 24.00 Lakh Tonnes	2015-16 25.36 Lakh Tonnes
		2016-17 23.00 Lakh Tonnes	2016-17 24.15 Lakh Tonnes
		2017-18 23.00 Lakh Tonnes	2017-18 23.39 Lakh Tonnes
		2018-19 23.00 Lakh Tonnes	2018-19 25.42 Lakh Tonnes
		2019-20 27.00 Lakh Tonnes	2019-20 25.44 Lakh Tonnes
3q	General remarks of inspecting officers on method of mining etc.		

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	YES	YES	
4b	Location of topsoil, OB and mineral reject dumps	Yes	As per approved document.	
4c	Number of dumps within lease area and outside of lease area	Three	Three	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the UPL and within the lease	Outside the UPL and within the lease	
4e	Number of active and alive dumps.	One	One	
4f	Number of dead dumps.	Two	Two	
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	Around the dumps	6.9 KM	
4j	Number of settling ponds	Three	Three	
4k	Specific comments of inspecting officer on waste dump management			Dump stabilization, maintenance of green belt etc. are found in order.

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.	Backfilling not proposed due to UG working below opencast working.	Backfilling not done in the opencast mine.	
5b	Area under backfilling of mined out area	NIL	NIL	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL	NIL	
5d	Total area fully reclaimed and rehabilitated	NIL	NIL	

5e	General remarks of inspecting officers on backfilling and reclamation etc.	HCL/MCP has started development for Underground mining at deeper level. After Open pit exhaustion backfilling of Open pit cannot be taken up due to safety reason.
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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).	Yes	Yes	
6b	Area available for rehabilitation (ha) .	NIL	NIL	
6c	afforestation done (ha).	1.2 Hect	1.2 Hect	
6d	No. of saplings planted during the year	3500 Nos	3800 Nos	
6e	Cumulative no .of plants	Not specified	3521544 plants	
6f	Any other method of rehabilitation	Not proposed	NA	
6g	Cost incurred on watch and care during the year	Not proposed	Rs. 80.67 Lakh	
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 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	Not specified	800 saplings
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	NIL	NIL
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)	YES	YES	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Plantation done on the opencast mine exhausted benches. Periodically Monitor of the benches is being done.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	2.7 million tonnes	2.544 million tonnes	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	0.2 to 0.45% Cu and above 0.45% Cu	0.2 to 0.45% Cu and above 0.45% Cu	
7d	Any beneficiation process at mines	Yes	Yes	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Lean ore is being used by blending in the high grade ore for mineral conservation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	NIL	No top soil in the working area.	
8b	Concurrent use or storage of topsoil	NIL	NIL	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	YES	YES	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NIL	NIL	UG working on progress below the open pit.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	After the end of Underground Mines life, Mines will be restore & reclaimed .	NIL	UG working on progress below the open pit.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Native tree species as suggested by Forest Department are Neem, Babul, Sal, Teak, Mango, Jamun, Amrud, Karaj etc.	plantation on the opencast benches done in 20.27 hect. 800 saplings replaced which were not survived after plantation. Cummulative 3521544 trees planted in and around the lease area.	
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Native tree species as suggested by Forest Department are Neem, Babul, Sal, Teak, Mango, Jamun, Amrud, Karaj etc.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Yes	MR of Apr-19 to Mar-20 has been submitted and AR of 2019-20 has been submitted in time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	Name of Manager - K Hansdah, DGM (Mines) Name of Mining Engineer - Mr. P D Bohra, AGM (Mines) Name of Geologist - Mr. V N Mishra, CM (Expl)	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	Mining area- 132.357 Waste Dump site - 137.381 Mineral storage - 6.063 Infra, admin buld -8.623 Road - 8.485 Mineral separation - 0.73 Other - 17.859 Undisturbed area - 168.672	
9d	Scrutiny of Annual return on afforestation	Yes	800 trees planted in the gap area and plants casualty replacement during 2019-2020.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Yes	806685 T of 0.348% Cu Mineral rejects generated during 2019-2020.	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	25.44 LT X 0.698% Cu ROM handled in which 17.37 LT X 0.863% Cu as crusher ore and 8.06 LT X 0.342 Cu as lean ore produced.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	Ex mine price Rs/- 1542.74 per tonne
9h	Scrutiny of Annual return on fixed assets	Yes	Rs. 1048.7 Millions
9k	Scrutiny of Annual return on mining machineries	Yes	Machineries run into both Opencast and Underground mines of electrical and non-electrical of different capacity as per submitted Annual Return.

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 :

(NARESH KUMAR KATARIYA)

Indian Bureau of Mines