

**INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION
MCDR INSPECTION REPORT
BHUBANESWAR REGIONAL OFFICE**

General:

SL. No.	Particulars	Details
1	Name of the Mine	Khandadhar-Kurmitar Iron ore and Mn-ore Mine
2	Date of inspection	06/08/2024
3	Name of inspecting officer	Prashant S Hegde, RMG
4	Name accompanying mine officials	S/Shri Pradyumna Kumar Nayak, Agent, Pradip Kumar Sahoo, Sr. Manager (Mining) & QP, Tushar Sainger, QP, Arun Balabantaroy, Mines Manager, Tarini Gautam, Mining Engineer, Dileswar Kishan, Geologist and other mine officials.
5	Last date of Inspection & Officer	13/03/2024 Shri Prashant S Hegde, RMG
6	Total Lease Area (Ha) with breakup of Non-forest and forest land	651 Ha. (Under Forest)
7	Minecode	30ORI13009
8	IBM Registration Number under rule 45 of MCDR, 2017	IBM/4269/2011
9	Name of the lessee, Address, phone, email and fax number	M/s Odisha Mining Corporation Ltd. (A Govt. of Odisha Undertaking) OMC House,Unit-5, Post Box No.-34, Bhubaneswar Phone No-06742392778 Email: planningcellomc@gmail.com Fax No-06625235228
10	Village	Rantha
11	Taluka/Mandal	Bonaigarh
12	District	Sundargarh
13	Pincode	770041
14	State	Odisha
15	Post office	Barsuan
16	Nearest police station	Lahunipara
17	Nearest Railway station	Barsuan
18	Date of Grant of Mining Lease	29.04.1965
19	Date of Execution	29.04.1965
20	Date of opening of Mine	29.04.1965
21	Date of expiry	28.04.2035
22	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Balwant Singh, IAS, Managing Director & Nominated Owner M/s Odisha Mining Corporation Limited OMC HOUSE, POST BOX NO-34, BHUBANESWAR, ODISHA-751001 PH:06742377401, E-Mail: md@odishamining.in D.O.A-08.01.2021
23	Name of the Mine Agent with	Sri Pradyumna Kumar Nayak

	Address, phone, email, fax number and date of appointment	Regional Office, Odisha Mining Corporation Ltd. P.O.- Koirra, Dist.- Sundargarh PIN - 770048 MOB NO - 9437795039 E-MAIL: pradyumna.nayak@odishamining.in Date of Appointment :-30.09.2022
24	Name of the Mines Manager with Address, mobile no, email, fax number and date of appointment in mine	Sri Arun Balabantaroy Mines Manager, Khandadhar-Kurmitar mine of M/s OMC Ltd P.O. - Barsuan, Dist. - Sundargarh PIN – 770041 Mobile No: 9438045844 Email:- abalabantaroy@odishamining.in Date of Appointment :- 30.09.2022
25	Name of the Mining Engineer , Qualification and total experience with Address, mobile no, email, fax/phone number and date of appointment in mine	Sri Tarini Gautam B. Tech. in Mining Engineering Khandadhar-Kurmitar mine of M/s OMC Ltd At - Khandadhar P.O. - Barsuan, Dist. - Sundargarh PIN – 770041 Mobile No: 7077038102 Email:- tarini.gautam@odishamining.in Date of Appointment :- 27.03.2024
26	Name of the Geologist , Qualification and total experience with Address, mobile no, email, fax number and date of appointment in mine	Sri Dileswar Kishan M.Sc (Geology) Khandadhar-Kurmitar mine of M/s OMC Ltd At - Khandadhar P.O. - Barsuan, Dist. - Sundargarh PIN – 770041 Mobile No: 8280050076 Email:- Dileswar.kishan@odishamining.in Date of Appointment :- 21.08.2023
27	Date of Approval of Mining Plan/Review of Mining Plan/ their modifications with five-year period and specific condition in approval letter, if any.	Approved Modified Review of Mining Plan Letter No. MRMP/A/30-ORI/BHU/2021-22 dtd. 06.01.2022 for period 2021-22 to 2024-25. (2145) The lessee has submitted draft RMP on 16/07/2024 and same was under process.
28	Mineral (s) granted in lease and proved for mining	Iron ore & Mn-ore (Mining of Iron ore proposals only)
29	Method of Mining(Opencast, Underground)	Opencast
30	Category (Fully Mechanised, Others or Manual)	Fully Mechanized
31	Captive/Non Captive	Non-Captive
32	Present EC Capacity	6 MTPA

OBSERVATIONS/COMMENTS OF INSPECTING OFFICER:**1)Exploration:---**

SL.No	Item	Proposals	Actual work	Remarks
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.		(FY 2023-24)		
1a	Backlog of previous year	FY 23-24: NIL FY 2024-25: NIL	NIL	No Backlog of exploration.
1b	Exploration over lease area for Geological axis 1 or 2.	Conversion of entire potentially mineralized area under G-1.	G-1: 243.24 Ha Proved mineralized area: 235.89 Ha and Proved Non-Mineralized area : 415.11 Ha	Potentially mineralized area explored in G-1 level (G-1: 243.24 Ha; G-2: 97.58 Ha; G-3: 310.18 Ha)
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NA	NIL	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	NA	NIL; Potentially mineralized area already explored in G-1 level.	_____
1e	Balance reserves as on 01.04.2024	NA	Iron Ore (+45 % Fe) reserves (111+122) : 166.574 million tonnes	Based on approved Modified RMP dated 06/01/2022.
1f:	General remarks of inspecting Officer on Geology, exploration etc.	The lease area is a part of major Horse-shoe shaped Singhbhum-Bonai-Keonjhar iron ore belt/series/formation. The deposit forms a northerly plunging synclinorium. The litho-unit observed at ML as follows: Laterite, Iron ore (HLO, SLO, HMO & blue dust), BHJ/BHQ, Shale. Based on exploration data, the configuration of ore body as follows. 2700m X 950m X 70m Potentially mineralized area already explored in G-1 level.		

2)Development:--

SL. No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
2a	Location of development w.r.t. lease area	QUARRY-II: 2406275 N to 2407250 N, 309304 E to 310185 E	QUARRY-II: 2406275 N to 2407250 N, 309304 E to 310185 E (Broadly as per the proposals)	_____
2b	Separate benches in topsoil, overburden and mineral	Separate benches in overburden and minerals ; No top-soil generation;	As per proposals	_____
2c	Stripping ratio or ore to OB ratio	1: 0.08	1:0.08	Ratio in tonnes/m ³ BD:2;

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2d	Quantity of topsoil generation in m3	No proposals	Nil	_____
2e	Quantity of overburden generation in m3	500,000 m3	328,643 m3	NIL
2f	General remarks of inspecting Officer on development of pit w.r.t. type of deposit etc	Development is being carried out within the limit as per approved Modified RMP.		

3)Exploitation:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
3a	Number of pits proposed for production	Quarry-II (01 no. of pit)	Quarry-II (01 no. of pit)	NIL
3b	Quantity of ROM mineral production proposed	6,000,000 Tonnes (In-situ) + Dump-Handling of 2,000,000 tonnes (WD-1 & WD-2) with 70 % recovery factor.	4,328,000 Tonnes (In-situ) + Dump-Handling : 1,481,000 tonnes (WD-1 & WD-2) = 5,809,000 tonnes.	Within the existing EC limit.
3c	Recovery of salable/usable mineral from ROM production	97.5 % i.e. 5,850,000 Tonnes (in-situ) + Dump-Handling with recovery of 70 % i.e. 1,400,000 tonnes	5,687,000 Tonnes (97.9 %)	NIL
3d	Quantity of mineral reject generation	150,000 Tonnes	122,000 Tonnes (45-55 % Fe with Avg-52.5 % Fe)	NIL
3e	Grade of mineral reject generation and threshold value declared	MR: 45 to 55 % Fe	MR: 45 to 55 % Fe	Threshold value of Iron Ore : +45 % Fe
3f	Quantity of	Same as para 3d		Utilization of

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	sub-grade mineral generation			Sub-grade mineral / mineral reject During FY-2023-24:NIL
3g	Grade of sub-grade mineral generation	Same as para 3e		
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	-----
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Nil	NIL	-----
3j	Provision of drilling & blasting in mineral benches	Deep hole drilling blasting of 115mm-150 mm dia. with emulsion/slurry/SME. Initiation by nonel/detonating fuse.	As per proposals.	NIL
3k	Provision of mining machineries in mineral benches	Yes, mining by Excavators & Dumpers Combination.	As per proposals.	-----
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	10m bench height with 10-15 m width.	As per proposals.	-----
3m	Total area covered under excavation/pits	82.733 Ha.	73.664 Ha. Within the limit.	-----
3n	Ore to OB ratio for the pit/mine during the year	1:0.08	1:0.08	Ratio in tonnes/m ³

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3o	Total area put in use under different heads at the end of year	Particulars	Total Area(Ha) at the end of FY 23-24	Particulars	Total Area(Ha) at the end of FY 2023-24	NIL
		Area under Mining	82.733	Area under Mining	73.664	
		Overburden/ Waste dumping	77.380	Overburden/ Waste dumping	44.264	
		Mineral Storage	35.065	Mineral Storage	10.501	
		Area Occupied Infrastructure, plants, buildings , roads etc	24.947	Area Occupied Infrastructure, plants, buildings , roads etc	22.724	
3p	Production of ROM mineral during last five-years period, as applicable	2019-20: 6.27 2020-21: 6 2021-22: 7.4 2022-23: 7.4 2023-24: 7.4 (Unit: In Million tonnes & Inclusive of production of dump working)	2019-20: 2.399 2020-21: 2.699 2021-22: 4.203 2022-23: 4.011 2023-24: 5.809	Unit: In Million tonnes; (Inclusive of production of dump working)		
3q	General remarks of inspecting Officer on method of mining etc	Open-cast fully mechanized mining method is being carried as per approved modified RMP. Dump working is also being carried out as per the proposal within prevailing EC limit of 6 MTPA.				

4)Solid Waste Management-Dumping:--

SL.No	Item	Proposals (FY 2023-24)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject	No Top soil Generation; Separate stacking/dumping Mineral reject and OB wastes.	Top-soil: NIL Mineral reject: Broadly as per the proposals. OB wastes: OB waste Dump at WD-3. Violation pointed out for site deviation of OB wastes dumping.	NIL

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4b	Location of topsoil, OB & mineral reject dumps	Top Soil- NIL OB:-2405988 N to 2406516 N; 311099 E to 312044 E (Lat:21°44'51.13" to 21°45'08.25" and Log: 85°10'24.03" to 85°10'56.95") Mineral Reject:- 2405820 N to 2406288N 311045 E to 310180E	Mineral reject: Broadly as per the proposals. OB wastes :- 2406124N to 2406440N; 311099E to 311253E. (Lat.: 21°44'55.19" to 21°45'05.49" and Log.: 85°10'24.10" to 85°10'29.38") Violation pointed out for site/location deviation.	NIL
4c	Number of dumps within lease area and outside lease area	Within lease-3 Nos Out-side lease-NIL	Within lease-3 Nos Out- side lease-NIL	NIL.
4d	Location of dumps w.r.t. ultimate pit limit	Proposed Out-side UPL (WD-3)	As per the proposals.	NIL.
4e	Number of active & alive dumps	One active dump (WD-3) only. Remaining two Dumps (WD-1 & WD-2) proposed for dump working	As per the proposals.	NIL
4f	Number of dead dumps	NIL	NIL	NIL
4g	Number of dumps stabilised	No such proposals	NIL	_____
4h	Whether Retaining wall or garland drain all along dumps are there	Yes; Retaining wall or garland drain all along dump	Constructed Retaining wall or garland drains all along dump.	_____
4i	Length of Retaining wall or garland drain all along dump	Retaining wall: 1250 m Garland drain :1280 m	Retaining wall: 2725 m Garland drain : 2390 m (along Toe of dumps & stocks so far.)	_____.
4j	Number of settling ponds	NIL	NIL	_____
4k	Specific	Overburden wastes management is not being carried out as per the		

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	comments of inspecting Officer on waste dump management	approved proposals. Violation pointed out for deviation in location of dumping. Now lessee has also submitted draft RMP on 16/07/2024 and same was under process.
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5)Solid Waste Management-Backfilling:--

SL.No	Item	Proposals (FY 2023-24)	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No such proposals.	NIL	_____
5b	Area under backfilling of mined out area	NA	NIL	_____
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	NA	NIL	_____
5d	Total area fully reclaimed & rehabilitated	NA	NIL	_____
5e	General remarks of inspecting Officer on backfilling and reclamation etc	Existing pits were not matured by backfilling as ore/mineral not exhausted.		

6)Progressive Mine Closure Plan:---

SL.N.	Item	Proposals (FY 2023-24)	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2). (Hard copy same provided)	Before 1 st July 2024	Submitted on time.	NIL
6b	Management of worked/ mined out benches/dumps i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on	i) Nil ii) NIL iii) NIL iv) NA v) Plantation vi) 5,16,480	i) Nil ii) 2.51 Ha iii) 2000 nos. (Safety zone+ haul road plantation only) iv) 18,000 nos. (Within lease area) v) Plantation vi) Rs. 7,93,500	NIL

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	watch & care during the year			
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i)NIL ii) NIL iii)NIL iv)NIL v)NIL	i)NIL ii) NIL iii)NIL iv)NIL v)NIL	No such reclamation and rehabilitation by backfilling proposals.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i)1920 nos ii)1.6 ha iii)Plantation	i)2000 nos ii)2.5 Ha iii) Plantation	Safety zone Afforestation
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Environmental monitoring in Core zone and buffer zone will be as per MOEF &CC and SPCB guidelines.	Environmental monitoring in Core zone and buffer zone was carried out as per the proposals and parameters are within the limit.	NIL
6f	General remarks of inspecting Officer on PMCP compliance & progressive closure operation etc	Lessee has implementing PMCP proposals as per approved MP.		

7)Mineral Conservation:---

SL.No	Item	Proposals (FY 2023-24)	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting to Fines & CLO by crushing and screening within lease area.	As per proposals.	NIL
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical.	Mechanical.	NIL

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7c	Different grade of mineral sorted out at mines	Iron Ore of different size (Fines & CLO) and Grade wise sorting and dispatched (Fine Iron Grade range- 55 to 65% Fe) and CLO (5-18 mm &10-40 mm size)	As per proposals. (Fine Iron Grade range- MR:51 to 55 % Fe and Fines : 60-below 62% Fe and CLO 62 to 65 % Fe (10-40 mm size)	Violation pointed for deviation in Lumps and fines ratio as against the proposals .
7d	Any beneficiation process at mines	None Except dry crushing & screening	As per proposals.	NIL
7e	General remarks of inspecting Officer on mineral conservation & beneficiation issues	Grade-wise soring to fines/CLO & dispatches of ore/mineral as per the proposals and there is no mineral conservation issue. The construction of downhill pipe conveyor ore transport system (outside ML) was under progress. The violation pointed for deviation in generation of lumps. Overall 16.4 % lumps generated during FY 2023-24 against the proposals of 39 % lumps from In-situ ore and 11.3 % lumps from waste dumps re-handlings.		

8)Environment:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
8a	Separate removal and utilization of topsoil	No such proposals.	Nil	_____
8b	Concurrent use or storage of topsoil	No such proposals.	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines	Separate dumping of OB wastes & mineral rejects proposed	Mineral reject stacking as per approved proposals. Violation pointed out for deviation in site of dumping.	_____
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposals	NIL	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposals	NIL	Nil
8f	Baseline information on existence of plantation & additional plantation done	Plantation of 1920 Nos of saplings proposed.	2000 nos saplings planted within ML and 18,200 nos saplings planted outside ML area during year 23-24. (Within ML :	As reported by the lessee.

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			Cumulative of 18,000 nos of saplings planted at 19.81 ha area + Outside ML: cumulative of 190,550 nos of saplings planted at 172.55 ha. so far)	
8g	Survival rate	94 %	92%	_____
8h	Water sprinkling on roads to control airborne dust	Regular sprinkling of water on Haul roads, crushing & screening plant site and dump location etc using Water tanker to suppress the dust.	Carried out as per the proposals.	_____
8i	General remarks of inspecting Officer on aesthetic beauty in & around mines area.	Aesthetic beauty in & around mines area is good as lessee implementing the PMCP proposal and carried out plantation as per the proposals.		

9) Compliance of Rule 45

SL.No.	Item	COMMENTS		Remarks.
9a	Status of submission of Monthly and Annual returns	Regularly submitting the MRs/ARs on-time.		Nil
S.N.	Item	Details GIVEN in A.R.	Actual in field	_____
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager: Shri Arun Balabantaroy Mining Engineer: Sri Tarini Gautam Geologist: Shri Dileswar Kishan	Actual also the same.	_____
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(1) Covered under current (O/C) Workings- 73.664 Ha (2) Used for Waste Disposal- 44.264 Ha (3) Occupied by plant, buildings, residential, welfare, buildings and roads- 22.724 Ha (4) Other Purpose (including Mineral Storage)- 10.501 Ha	Actual also as per AR.	_____
9d	Scrutiny of Annual return on	2000 nos (WML) + 18,200 nos (OML) during year.	Actual also as per AR; However,	Violation issued.

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	afforestation		total cum. nos mentioned were not correct.																									
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	<p>During year-23-24 (Generated)</p> <table border="1"> <tr> <td>Iron Unprocessed Ore (45-55 % Fe)</td> <td>NIL</td> </tr> <tr> <td>Iron Processed Ore (45-55 % Fe)</td> <td>122,000 tonnes</td> </tr> </table>	Iron Unprocessed Ore (45-55 % Fe)	NIL	Iron Processed Ore (45-55 % Fe)	122,000 tonnes	Actual also as per AR .	_____																				
Iron Unprocessed Ore (45-55 % Fe)	NIL																											
Iron Processed Ore (45-55 % Fe)	122,000 tonnes																											
9f	Scrutiny of Annual return on ROM stock and/or graded ore	<p>As on 31.03.2024 tonnes Stock Iron ROM: NIL</p> <table border="1"> <tr> <td colspan="2">Lumps closing stock in tonnes</td> </tr> <tr> <td>51%- below 55 % Fe</td> <td>100,000</td> </tr> <tr> <td colspan="2">Fines closing stock in tonnes</td> </tr> <tr> <td>51%- below 55 % Fe</td> <td>288,947</td> </tr> <tr> <td>55%- below 58%Fe</td> <td>22,663</td> </tr> <tr> <td>58%- below 60%Fe</td> <td>86,295</td> </tr> <tr> <td>60%- below 62%</td> <td>1,379,792</td> </tr> <tr> <td>62%- below 65%Fe</td> <td>6814</td> </tr> <tr> <td>65%Fe and above</td> <td>NIL</td> </tr> <tr> <td colspan="2">CLO stock in tonnes</td> </tr> <tr> <td>below 62% Fe (any size)</td> <td>16,376</td> </tr> <tr> <td>62%- below 65% Fe (10-40 mm)</td> <td>229,243</td> </tr> </table>	Lumps closing stock in tonnes		51%- below 55 % Fe	100,000	Fines closing stock in tonnes		51%- below 55 % Fe	288,947	55%- below 58%Fe	22,663	58%- below 60%Fe	86,295	60%- below 62%	1,379,792	62%- below 65%Fe	6814	65%Fe and above	NIL	CLO stock in tonnes		below 62% Fe (any size)	16,376	62%- below 65% Fe (10-40 mm)	229,243	Appear to be correct.	-----
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9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	<p>Cost of production: Rs-2592.25 per tonne; Ex-mine price:</p> <table border="1"> <tr> <td colspan="2">Ex-mine Price of Iron ore Fines in Rs per tonne</td> </tr> <tr> <td>60%- below 62% Fe</td> <td>4302.17</td> </tr> <tr> <td colspan="2">Ex-mine Price for CLO in Rs per tonne</td> </tr> <tr> <td>62%-65% Fe (10-40 mm Size)</td> <td>5923.10</td> </tr> </table>	Ex-mine Price of Iron ore Fines in Rs per tonne		60%- below 62% Fe	4302.17	Ex-mine Price for CLO in Rs per tonne		62%-65% Fe (10-40 mm Size)	5923.10	Appear to be correct except Cost of production	Violation issued.																
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9i	Scrutiny of Annual return on fixed	Fixed Value of Assets: Rs 30,93,07,743	Appear to be correct.	_____																								

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	assets			
9k	Scrutiny of Annual return on mining machineries	Back Hoe: 17 nos; Front end Loader:11 nos; Dumpers: 47 nos ; Rock Drill (115 mm): 4nos; Water tanker: 6 nos; Crusher: 1 nos (1200 tph static) ; Dozer: 3 nos Motor Grader: 2 nos.	Observed to be correct.	_____

(10) Violation observed during current inspection and compliance position of earlier violation pointed out:

(a) Compliance position of earlier violation pointed out: During last inspection dated 13/03/24, the violation of rule 11(1) of MCDR 2017 was pointed out and subsequently, said rule complied on 14/05/24.

(b) During current inspection: The violations of rules 11(1) and 45(7) of MCDR 2017 have been observed and the violation letter issued on 27/08/2024.

Date: 27/08/2024

(Prashant S. Hegde)
Regional Mining Geologist