

MCDR INSPECTION Format

General

SL. No.	Particulars	Details
1	Name of the Mine	Ghoraburhani Sagasahi Iron Ore Mine
1.1	Name of Inspecting Officer with Designation	Rajesh Kumar Das, DCOM
1.2	Date of Inspection & accompany officer	08.11.2024 & Shri Satyakama Das, Manager Mines & Shri Chandrabhanu Das, QP
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease Area: 139.165 Ha Non-forest land: 12.764 Ha Forest land: 126.401 Ha
3	Minecode	30ORI13071
4	IBM Registration Number under rule 45 of MCDR, 2017	IBM/571/2011
5	Name of the lessee, Address, phone, email and fax number	ArcelorMittal Nippon Steel India Limited Surat Hazira Roadhazira, Chouryasi, District-Surat, Gujarat-394270 Phone – 8639867046, Email- Lingamagunta.Babu@amns.in
6	Village	Ghoraburhani, Sagasahi & Kalamang
7	Taluka/Mandal	Koira
8	District	Sundargarh
9	Pincode	770048
10	State	Odisha
11	Post office	Koira
12	Nearest police station	Koira
13	Nearest Railway station	Barsuan
14	Date of Grant of Mining Lease	25.03.2021
15	Date of Execution	26.03.2021
16	Date of opening of Mine	09.09.2021
17	Date of expiry	25.03.2071
18	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Dilip Oommen Office No.126, 101-104, GCP Business Center, Opp. Memnagar Fire Station, Vijay Cross Road Memnagar, Ahmedabad-380014, Gujarat. Date of Appointment:20.04.2021
19	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Sharanappa Kambalii Ghoraburhani Sagasahi Iron Ore Mine, Village-Ghoraburhani, PO: Malda, PS: Koira, Sundargarh Odisha-770048 Email: Sharanappa.Kambalii@amns.in Date of Appointment: 04.04.2023
20	Name of the Mines Manager with Address, mobile no, email, fax number and date of appointment in mine	Satyakama Das Ghoraburhani Sagasahi Iron Ore Mine, Village-Ghoraburhani, PO: Malda, PS: Koira, Sundargarh Odisha-770048 Mobile No.- 7024264572 Email: Satyakama.das@amns.in Date of Appointment:20.05.2024
21	Name of the Mining Engineer , Qualification and total experience	Anupkumar Jha Qualification: BE (Mining) with 1 st class Mines

	with Address, mobile no, email, fax/phone number and date of appointment in mine	Manager's Competency Experience: 8 years Address: Ghoraburhani Sagasahi Iron Ore Mine, Village-Ghoraburhani, PO: Malda, PS: Koira, Sundargarh Odisha-770048 Mobile No.- 8208763729 Email: anupkumar.jha@amns.in Date of Appointment:20.05.2024
22	Name of the Geologist , Qualification and total experience with Address, mobile no, email, fax number and date of appointment in mine	Susanta Maharana Qualification: M.Sc Applied Geology Experience: 13 years Address: Ghoraburhani Sagasahi Iron Ore Mine, Village-Ghoraburhani, PO: Malda, PS: Koira, Sundargarh Odisha-770048 Email: susanta.maharana@amns.in Mobile No.-8763454499 Date of Appointment:22.02.2024
23	Date of Approval of Mining Plan/Review of Mining Plan/ their modifications with five-year period and specific condition in approval letter, if any.	Modified Mining Plan Approved vide letter No. MPM/A/25-ORI/BHU/2021-22, dated: 15.02.2022 & the plan period is 2021-22 to 2024-25
24	Mineral (s) granted in lease and proved for mining	Iron Ore
25	Method of Mining(Open cast, Underground)	Open Cast
26	Category (Fully Mechanised, Others or Manual)	Fully Mechanised
27	Captive/Non Captive	Captive
28	Present EC Capacity	ROM: 7162538 TPA

Exploration:---

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	Geological axis 1	Geological axis 1	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Nil	NA	Exploration agency: - Gemco Kati Exploration Private - Apc Drilling & Construction Private Expenditure: 713.593 lakh
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	NA	G1 axis Mineralized area: 92.63 Ha Non-mineralized area: 11.60 Ha

				G2 axis Non-mineralized area: 34.935 Ha (Exploration of entire potential Mineralized area in G1 Level is completed in the 2022-23)
1e	Balance reserves as on 01.04.2024		Reserve: 65,010,739 mt Remaining - resource: 20,370,000 mt Total Resource: 85,380,739 mt	
1f	General remarks of inspecting officer on geology, exploration etc.	Ghoraburhani Sagasahi iron Ore block lies within the Upper Shale Formation of the Koira Group. Litho units like Iron ores of HLO, SLO, lateralized HLO types, Fe-Shale, laterites of both aluminous and Ferruginous nature, float ores concealed under soil and alluvial cover at places are mapped in the Ghoraburhani - Sagasahi block. ENE to WSW Amount of dip of Ore body: 20-40 degree towards NW Dip Direction of the Ore Body: NW to SE Plunge of Mineral Body (degree) (if any): 10-15 degree Direction of plunge: SW to NE. The potential mineralized area broadly explored in G1.		

Development:-

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
2a	Location of development w.r.t. lease area	North Pit: N-2427767 to 2428408, E-322818 to 323200 Bottom RL: 540m South Pit: N-2427373 to 2427834, E-322857 to 323638 Bottom RL: 610m	North Pit: N- 2427863 to 2428272, E-322818 to 323200 Bottom RL: 569.50m South Pit: N- 2427400 to 2427834, E-322857 to 323538 Bottom RL: 619m	The development is within the limit of approved mining plan
2b	Separate benches in topsoil, overburden and mineral	North Pit: Topsoil-0 OB-2 Mineral-6 South Pit: Topsoil-0 OB-0 Mineral-7	North Pit: Topsoil-0 OB-2 Mineral-8 South Pit: Topsoil-0 OB-0 Mineral-9	As per the proposal
2c	Stripping ratio or ore to OB ratio	1:0.16	1:0.04	
2d	Quantity of topsoil generation in m3	3792	590	
2e	Quantity of overburden generation in m3	1177520	240491	

2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	During mine visit it was observed that that bench parameters are not as per proposal. The benches not developed as per proposal. The maximum height of bench was proposed 10 meter and minimum width 10 meter but bench height in many places 12-15 meter and width also less than proposal. The bench height in many places in south quarry more than 15 meter. There are many places where undercuts in benches, overhang boulder observed. The OB generation as development proposed 1177520 m ³ but actual OB generation reported 240491m ³ which is only 20% of the proposal The violations pointed out accordingly.
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Exploitation:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
3a	Number of pits proposed for production	2	2	
3b	Quantity of ROM mineral production proposed	7162128	6345030	
3c	Recovery of salable/usable mineral from ROM production	7162128	6345030	
3d	Quantity of mineral reject generation	1708398	1326502	
3e	Grade of mineral reject generation and threshold value declared	51-58% Fe	55-58% Fe	
3f	Quantity of sub-grade mineral generation	NA	NA	
3g	Grade of sub-grade mineral generation	NA	NA	
3h	Manual / Mechanized method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	NA	NA	
3j	Provision of drilling & 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	46.051	39.090	
3n	Ore to OB ratio for the pit/ mine during the year	1:0.16	1:0.04	
3o	Total area put in use under different heads at the end of	122.65 Ha	106.806 Ha	

	year			
3p	Production of ROM mineral during the last five year period as applicable.	2021-22: 3350613(t) 2022-23: 7160725(t) 2023-24: 7162128(t) 2024-25: 7162538 (t)	2021-22: 2745042 (t) 2022-23: 4139231(t) 2023-24: 6345030 (t) 2024-25: (as on 31.10.2024) 3800680 (t)	
3q	General remarks of inspecting officer on method of mining etc.	The method of mining is by opencast method by using HEMM and deep hole drilling and blasting.		

Solid Waste Management-Dumping:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate dumping of topsoil, OB & mineral reject has been proposed	As per the proposal, separate dumping of topsoil, OB & mineral reject has been carried out	
4b	Location of topsoil, OB & mineral reject dumps	Topsoil: Near MLB-12 OB: Waste dump-2 and Waste dump-3 Mineral reject: Proposed temporary mineral Reject Stock-1,2,3,4	TopSoil: Near MLB-7 OB: Waste dump-2 and Waste dump-3 Mineral reject: Proposed temporary mineral Reject Stock-3	
4c	Number of dumps within lease area and outside lease area	Within lease: OB Dump: 3nos Outside lease: NIL	Within lease: OB Dump: 3nos Outside lease: NIL	
4d	Location of dumps w.r.t. ultimate pit limit	Waste dump -1 & 2 Proposed within the UPL is temporary in nature and Waste dump-3 is outside the UPL	Waste dump -1 & 2 within the UPL is temporary in nature and Waste dump-3 is outside the UPL	
4e	Number of active & alive dumps	2 nos	2 nos	Waste dump-2 & 3
4f	Number of dead dumps	1 nos	1 nos	Waste dump-1
4g	Number of dumps stabilised	1 nos	1 nos	Waste dump-1
4h	Whether Retaining wall or garland drain all along dumps are there	Proposed all along the OB and Mineral reject dumps	Retaining Wall & garland drain constructed all along the OB Dump as per proposal	
i	Length of Retaining wall or garland drain all along	Maintenance	Retaining wall: 650m Garland drain: 774m	

	dump			
4j	Number of settling ponds	Maintenance	2Nos	
4k	Specific comments of inspecting officer on waste dump management	The bench height of Dump-2 & Dump-1 proposed 7.70 meter & 13.36 meter respectively but actual bench height is more than 20 meter.		

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	Not proposed	Not Applicable	
5b	Area under backfilling of mined out area	Not proposed	Not Applicable	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	Proposed for plantation	598 cu.mt has been utilized for plantation	
5d	Total area fully reclaimed & rehabilitated	Not proposed	Not Applicable	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Area not matured for backfilling.		

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)	Yes	Yes	
6b	Management of worked/ mined out benches 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 watch & care during the year	i) Area available for rehabilitation (ha) - 0 ii) Afforestation done (ha) -0 iii) No. of saplings planted during the year -2560 iv) Cumulative no. of plants -7520 v) Any other specific method of rehabilitation -NA vi) Not mentioned specifically	i) Area available for rehabilitation (ha) - 0 ii) Afforestation done (ha) -0 iii) No. of saplings planted during the year -3835 iv) Cumulative no. of plants -14579 v) Any other specific method of rehabilitation -NA vi) nil	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by	Nil	Nil	

	waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means			
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	Nil	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	For AAQ & Noise Monitoring Station 3 locations in the core Zone and 4 locations in the buffer Zone	For AAQ & Noise Monitoring Station 3 locations in the core Zone and 4 locations in the buffer Zone	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Broadly as per proposal.		

Mineral Conservation:---

SL.No.	Item	Proposals ((FY 2022-23)	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade-wise sorting for +58% Fe and 45 to 58% Fe has been proposed.	Grade-wise sorting for +58% Fe and 45 to 58% Fe has been carried out as per the proposal	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines	Grade-wise sorting for +58% Fe and 45 to 58% Fe has been proposed.	Grade-wise sorting for +58% Fe and 45 to 58% Fe has been carried out as per the proposal	
7d	Any beneficiation process at mines	Size separation by using crusher and screen plant	Size separation by using crusher and screen plant	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Blend different grade material to get desired grade.		

Environment:--

SL.No.	Item	Proposals ((FY 2023-24)	Actual work	Remarks
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8a	Separate removal and utilization of topsoil	Separate removal of topsoil has been proposed and will be utilized for plantation	Separate removal of topsoil has been done and being used for plantation.	
8b	Concurrent use or storage of topsoil	Concurrent use or storage of topsoil has been proposed	Concurrent use and storage of topsoil has been carried out.	
8c	Separate dumps for overburden, waste rock, rejects and fines	Separate dumps for overburden, waste rock, rejects and fines has been proposed	Separate dumps for overburden, waste rock, rejects and fines has been carried out .	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed	Not applicable	
8f	Baseline information on existence of plantation & additional plantation done	2560 Nos	3535 Nos	
8g	Survival rate	80%	73%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling to be done regularly	Water sprinkling is carried out by means of 4 nos of water tanker with (1 X 8 K, 1 X 10KL, 2 X 16 KL). Dry fogging system is provided at Crush and screen plant for control of fugitive dust emission.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The lessee is taking care of all environmental preventive measures as per statute i.e Air, Water, Noise, ground vibration monitoring. The plantation is done and dust suppression water sprinkling is done on regular basis. There is no adverse impact observed during mine visit on aesthetic beauty in and around mines area.		

Compliance of Rule 45

SL.No.	Item	COMMENTS		Remarks.
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto September 2024 A.R. submitted upto FY 2023-24		
S.N.	Item	Details GIVEN	Actual in field	

		in A.R.		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager-1 Mining Engineer-1 Geologist-1	Mining Engineer & Manager: Shri L.D.Babu, Geologist: Shri Sushanta Maharana	During mine visit Shri Satyakama Dash is manager
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	Yes	
9d	Scrutiny of Annual return on afforestation	NA	NA	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Yes	Yes	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	Yes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Yes	Yes	
9i	Scrutiny of Annual return on fixed assets	Yes	Yes	
9k	Scrutiny of Annual return on mining machineries	Yes	Yes	

The mine visit for processing Review of Mining Plan and violations under Rule 11(1), 37(2) & 45(5)©
