

MCDR-MiFLOFE/12/2022-BBS-IBM\_RO\_BBS  
MCDR INSPECTION REPORT

1/28715/2024

**Name of the Mine:** Roida II Iron Ore Mines, of M/s Narbheram Power And Steel Private Ltd,  
30ORI08124

**Name of the Inspecting Officer :** Shri Sanjay Kumar Mahapatra, ACOM

**Name of the accompanying official:** Sri Sadananda Rana(Mines Agent), Sri Prasanta  
Kumar Mohanty(Mines Manager) and Sri Atanu Bandopadhyay(Geologist).

**Date of Inspection:** 04.03.2024.

**General**

S. N.	Particulars	Details
1	Name of the Mine	Roida II Iron Ore Mines
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Lease Area: 74.702 Ha (as per DGPS Survey & 74.867 Ha as per RoR) Non-Forest Land: 3.802 Ha (as per DGPS Survey & 3.832 Ha as per RoR) Forest Land: 70.900 Ha (as per DGPS Survey & 71.035 Ha as per RoR)
3	Minocode	30ORI08124
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/4329/2011
5	Name of the lessee, Address, phone, email and fax number	M/s Narbheram Power And Steel Private Limited Address: Narbheram Complex Opposite of Barbil Cinema Hall; Main Road; Barbil
6	Village	Tanto
7	Taluka/Mandal	Barbil
8	District	Keonjhar
9	Pin code	758035
10	State	Odisha
11	Post office	Barbil
12	Nearest police station	Barbil
13	Nearest Railway station	Barbil
14	Date of Grant of Mining Lease	29.06.2020
15	Date of Execution	29.06.2020
16	Date of opening of Mine	15.10.2020
17	Date of first Renewal, if applicable and its period & expiry	Not applicable. Auctioned Lease.; Lease valid upto 28.06.2070
18	Date of second Renewal, if applicable and its period & expiry	Not applicable; Lease valid upto 28.06.2070
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	Shri Vishal Atha 6th Floor; Avani Signature; 91 A/1 Park Street; Kolkata West Bengal – 700016 Phone: 9668560057 Email: <a href="mailto:npspl@athagroup.in">npspl@athagroup.in</a>
21	Name of the Mine Agent with Address, phone,	Mr. Sadananda Rana

		Narbheram Complex Barbil Main Road; Opposite of Barbil Cenema Hall; Barbil Keonjhar; Odisha – 758035 Phone: 9937227948 Email: <a href="mailto:npspl@athagroup.in">npspl@athagroup.in</a> Date of appointment: 27.10.2020
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Mr. Prasanta Kumar Mohanty, Narbheram Complex Barbil Main Road; Opposite of Barbil Cenema Hall; Barbil Keonjhar; Osidha – 758035 Phone: 7752011137 Email: <a href="mailto:npspl@athagroup.in">npspl@athagroup.in</a> Date of appointment: 01.06.2020
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. Sanjay Samal, B.Tech – Mining Engineer; 15 years’ experience Narbheram Complex Barbil Main Road; Opposite of Barbil Cenema Hall; Barbil Keonjhar; Osidha – 758035 Phone: 8763029709 Email: <a href="mailto:npspl@athagroup.in">npspl@athagroup.in</a> Date of appointment: 01.06.2020
24	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. Atanu Bandopadhyay, M.Sc – Geology; 12 years’ experience. Narbheram Complex Barbil Main Road; Opposite of Barbil Cenema Hall; Barbil Keonjhar; Osidha – 758035 Phone: 9692688641 Email: <a href="mailto:npspl@athagroup.in">npspl@athagroup.in</a> Date of appointment: 01.06.2020
25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56 & 57.	Yes
26	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Mining Plan approved on 11.11.2020
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Modified Mining Plan approved on 31.05.2021
28	Mineral(s) granted in lease and proved for mining	Iron Ore
29	Method of Mining(Open cast, Underground)	Open cast
30	Category (Fully Mechanised, Others or Manual)	Fully Mechanized
31	Captive/Non Captive	Captive

### Exploration

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
1a	Backlog of previous year	11	9	
1b	Exploration over lease area for Geological axis 1 or 2.	11	9	During 2023-24, against the

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proposal  
of 11  
BHs, 13  
BHs have  
been  
explored.

1c	Exploration Agency & Expenditure in lakh Rupees during the year	3780400		
1d	Balance area to be explored to bring Geological axis in 1 or 2	12.190 (Area explored under G2 & rest under G1)	8.30 (Area explored under G2 & rest under G1)	As per proposal, exploration is being done to cover the total area under G1 category
1e	Balance reserves as per latest approved document	200773.820 T	14,804,725.000 T	As on 01.03.2024, the balance Reserve is 11967863.32 T.
1f	General remarks of inspecting officer on geology, exploration etc.	As on 01.03.2024, the balance Reserve is 11967863.32 T. However, the reserve is not updated based on recently carried out exploration. Violation of data Rule 12(4B) of MCDR 2017 issued on 12.03.2024. Against the proposal of 11 BHs, 13 BHs have been explored during 2023-24. Thus the backlog of 2022-23 has been covered and violation not issued in this regard.		

### Development

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
2a	Location of development w.r.t. lease area	Quarry-6 E 330800 to E 331410 / N 2438420 to N 2438040	Quarry-6 : N 2438422.3588- N 2437990.2851/ E 331525.1014- E 330755.5532	Quarry – 6 As proposed.
		Quarry-2 E 331540 to E 331770 / N 2437940 to N 2437640	Quarry-2 : N 2437991.6112- N 2437343.7575/ E 331916.5214- E 331532.0286	Quarry – 6 Less production from this quarry but worked within proposal
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	No Benches in Top Soil Quarry-6	No Benches in Top Soil Quarry-6	

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	Mineral-11	Mineral-11
	OB-9	OB-9
	Quarry-2	Quarry-2
	Mineral-6	Mineral-6
	OB-2	OB-2
2c	Stripping ratio or ore to OB ratio	1:0.0859
2d	Quantity of topsoil generation in m <sup>3</sup>	NIL
2e	Quantity of overburden generation in m <sup>3</sup>	300800
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc	79883.07
		OB generation & dumping less due to less development in Quarry-2. During inspection it was observed and violation of Rule 11(1) of MCDR 2017 issued on 12.03.202

**EXPLOITATION**

N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
3a	Number of pits proposed for production	2	2	Quarry – 6 Less production from this quarry but worked within proposal
3b	Quantity of ROM mineral production proposed	3499940	2872227.900	
3c	Recovery of salable/usable mineral from ROM production		2872227.900	
3d	Quantity of mineral reject generation	545130	461773.890	
3e	Grade of mineral reject generation and threshold value declared	53.85% Fe Threshold value=45% - 55% Fe	52.30% Fe Threshold value=45% - 55% Fe	
3f	Quantity of sub-grade mineral generation	NIL	NIL	
3g	Grade of sub-grade mineral generation	NIL	NIL	
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	No beneficiation proposed, only blending proposed for total sub-grade mineral	Total sub-grade generated has been blended	
3j	Provision of drilling & blasting in mineral benches	Drill: 125.4 mm/ day Blasting: 456480m <sup>3</sup> (year)	Drill: 103 mm/ day Blasting: 3,80,100m <sup>3</sup> (year)	
3k	Provision of mining machineries in mineral benches		As per proposal.	
3l	Whether height of benches in overburden and mineral	Yes	Yes	

suitable for method of  
mining proposed in  
MP/SOM

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3m	Total area covered under excavation/pits	Quarry-6 22.9869 Ha. Quarry-2 15.4831Ha	Quarry-6 21.962Ha. Quarry-2 14.5831 Ha
3n	Ore to OB ratio for the pit/mine during the year	1:0.01718	1:0.05562
3o	Total area put in use under different heads at the end of year		
	Mining	38.470	36.945
	Mineral storage	10.871	10.046
	Mineral Separation plant, Roads & Infrastructure (Workshop, administrative building etc.)	6.142	6.142
	OB/waste dump	11.369	11.369
3p	Production of ROM mineral during last six-year period, as applicable		
	2018-19	NA	NA
	2019-20	NA	NA
	2020-21	1710490.000	1526679.19
	2021-22	3499750.000	2400428.56
	2022-23	3499940.000	2872227.900
3q	General remarks of inspecting officer on method of	In (Quarry2) bench height and width has not been maintained as proposed. The height is more than 06 meters and width is also less.. It was observed that faces are not developed as per the proposal. The mine development & production proposals in Quarry No-2 have not been carried out as per the proposal during FY 2022-23. Violation of rule 11(1) of MCDR 2017 issued on 12.03.2024.	

### Solid Waste management-Dumping

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
4a	Separate dumping of topsoil, OB & mineral reject (Rule 33, 37)	Top soil Nil, as one single Dump for OB/Waste as there is no top soil	01 Dump for OB/Waste as there is no top soil	No top Soil.
4b	Location of topsoil, OB & mineral reject dumps	N2437840- N2437740 E331760- E332110	N2438169.617 - N2437654.839 5 E332108.9725 - E331736.4725	It was observed that the dump terraces height is more than 20 meters against the proposal of 11 meters height.
4c	Number of dumps within lease area and outside lease area	1	1	
4d	Location of dumps w.r.t. ultimate pit limit	Outside UPL	Outside UPL as per	On verification of last year

4e	Number of active & alive dumps	1	1	
4f	Number of dead dumps	NIL	NIL	
4g	Number of dumps stabilised	NIL	Partly stabilised	
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	NIL	415m	
4j	Number of settling ponds	Maintenance of existing 7 Settling Ponds		
4k	Specific comments of inspecting officer on waste dump management	On verification of last year exploration, a part of the area below dump is found containing ore of more than 45% Fe. Considering Mineral Conservation, the lessee has been advised to propose for excavation of the mineral under the dump in coming Modification / Scheme and re handling of the dump. Violation under Rule 11(1) of MCDR 2017 issued as the dump terraces height is more than 20 meters against the proposal of 11 meters height.		

**Solid Waste management-Backfilling**

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Backfilling started after full extraction of mineral from mined out area	Backfilling started after full extraction of mineral from mined out area.	
5b	Area under backfilling of mined out area	0.76 Ha	Nil	Violation under Rule 11(1) of MCDR 2017 issued on 12.03.2024 for not carrying out back filling as proposed
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	NA	NA	No top soil
5d	Total area fully reclaimed & rehabilitated	Nil	Nil	Cumulative 1.571 Ha
5e	General remarks of inspecting officer on backfilling, reclamation etc	Violation under Rule 11(1) of MCDR 2017 issued on 12.03.2024 for not carrying out back filling as proposed.		

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**Progressive Mine Closure Plan**

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N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2).	On or before 30.06.2023	Submitted on 30.06.2023	
6b	Management of worked/mined out benches			
	i) Area available for rehabilitation (ha)	Nil	Nil	
	ii) Afforestation done (ha)	Nil	0.450	
	iii) No. of saplings planted during the year	2600	6000	
	iv) Cumulative no. of plants			
	v) Any other specific method of rehabilitation	7450 -	16000 -	
	vi) Cost incurred on watch & care during the year	Rs. 1,50,000/-	Rs. 5,16,000/-	
6c	Compliance on reclamation and rehabilitation by backfilling	Nil	Nil	Violation under Rule 11(1) of MCDR 2017 issued on 12.03.2024 for not carrying out back filling as proposed.
	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			
6d	Compliance of Rehabilitation of waste land within lease	Nil	Nil	
	i) Afforestation			
	ii) Area rehabilitated (ha)			
	iii) Method of rehabilitation			
6e	Compliance of Environmental monitoring (core zone & buffer zone)			All parameters within limit.
	Ambient Air Monitoring			
	Core:	3	3	
	Buffer:	2	2	
	Fugitive Air Monitoring			
	Core:	5	5	
	Ground Water Monitoring			
	Core:	2	2	
	Buffer:	3	3	
	Surface Water Monitoring			
	Buffer:	3	3	
	Noise Monitoring			
	Core:	6	6	
	Buffer:	3	3	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	Environmental reports checked and found that all parameters within limit. Violation under Rule 11(1) of MCDR 2017 issued on 12.03.2024 for not carrying out back filling as proposed.		

**Mineral Conservation**

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
7a	ROM Mineral dispatch or grade-wise sorting within lease area	NA	NA	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	NA	NA	
7c	Different grade of mineral sorted out at mines	NA	NA	
7d	Any beneficiation process at mines	NA	NA	Dry beneficiation (crushing & screening) of ROM is practiced.
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	It is observed that, dry beneficiation (crushing & screening) of ROM for sizing of ore is presently going on in the mines		

### Environment

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
8a	Separate removal and utilization of topsoil (Rule 36)	NIL	NIL	No top soil.
8b	Concurrent use or storage of topsoil	NIL	NIL	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Yes	Being carried out	01 Dump for OB/Waste as there is no top soil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NIL	NIL	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	NIL	Violation under Rule 11(1) of MCDR 2017 issued on 12.03.2024 for not carrying out back filling as proposed.
8f	Baseline information on existence of plantation & additional Plantation done	2600	6000	Survival rate 90%
8h	Water sprinkling on roads to control airborne dust	Yes	Being carried out	Water sprinkling on haul roads has been carried out for control of air borne dust..
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The mine is ODF free and general aesthetic beauty has been maintained.		

### Compliance of Rule 45

S.N.	Item	COMMENTS	Remarks
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I/28715/2024	9a Status of submission of Monthly and Annual returns	M.R. Submitted upto January 2024 A.R. Submitted upto 2022-23		Submitted in time.
	9b Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager: Mr. Prasanata Kumar Mohanty Mining Engineer: Mr. Sanjaya Samal Geologist: Mr. Atanu Bandopadhyay		Mining Engineer was absent during Inspection due to Medical Emergency, however, the Mines Manager & Geologist were present
	9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. (i) Covered under current (O-C) Workings (ii) Reclaimed-rehabilitated (iii) Used for waste disposal (iv) Occupied by plant, buildings, residential, welfare buildings and roads (v) Used for any other purpose (specify) Mineral storage (vi) Work done under progressive mine closure plan during the year	36.945 0.141 11.369 6.142 10.046 1.571	As per annual Return	
	9d Scrutiny of Annual return on afforestation	2600	As per annual Return	
	9e Scrutiny of Annual return on mineral reject generation (Grade & quantity)	461773 52.30 % fe	As per annual Return	
	9f Scrutiny of Annual return on ROM stock and/or graded ore	ROM  Fines 41-55 51-55 55-58 58-60 60-62 62-65 65+ TOTAL  CLO 55- 55-58 58-60 60-62 62-65	As on 01.04.2023  966448.030  0.090 18329.594 85870.867 285607.801 157021.558 390976.128 0 937805.948  0 8016.950 12895.850	As per annual Return

9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Production cost Rs 3967.58/Ton Ex Mine Price Fines 41-55- 600.00 51-55- 1056.00 55-58 - 1797.00 58-60 - 3093.00 60-62 - 5006.00 62-65 - 4564.00  Ex Mine Price CLO Below 62% Fe- 5759.00 62-65 (5*18) - 1364.00 62-65 (10*40) - 1342.00	As per annual Return
9i	Scrutiny of Annual return on fixed assets	Rs 443114665/-	As per annual Return
9k	Scrutiny of Annual return on mining machineries	List attached.	

#### Mine Machinery as per Annual return on mining machineries

Type of Machinery	Capacity of each type of machinery	Unit(in which capacity is reported)	No. of machinery	Electrical/ Non-electrical (specify)
Shovel	3.8	CuM	2	Diesel
Shovel	1.8	CuM	2	Diesel
Shovel	0.9	CuM	11	Diesel
Shovel	0.7	CuM	2	Diesel
Loader (Bucket Capacity)	1.5	CuM	4	Diesel
Loader (Bucket Capacity)	2.5	CuM	5	Diesel
DTH drill	104	mm dia	2	Diesel
Compressor	200	psi	2	Diesel
Rock Breaker BEML-220	-	-	1	Diesel
Dumper	35T	CuM/tonne	35	Diesel
Water Tanker	10000	ltr	3	Diesel
Dozer	264	HP	1	Diesel
Generator	82.5	KVA	1	Diesel
	160	KVA	1	Diesel
Other Non-Elctrical (Mobile Screen Plant)	150	TPH	3	Diesel
	350	TPH	2	Diesel
Crusher Plant	150	TPH	4	Diesel

#### 10. Drone Survey Information and data thereof. Drone survey carried on 26.03.2023

(Sanjay Kumar Mahapatra)  
Assistant Controller of Mines