

MCDR INSPECTION REPORT FOR THE PERIOD OF 2023-24

1) Name of Inspecting officer:	Shri Vikrant Khedikar
2) Designation	Senior Assistant controller of mines
3) Accompanying mine official with designation	Sri Ram Singh, Mines Manager (GM I/c (Mining), KIOM) Sri Subrat Pattnaik, Geologist,(AGM (Geology), KIOM) Sri Sarij Behera, AGM (Geology), KIOM Sri A T Jena, AGM (Survey), KIOM
4) Date of Inspection	08/10/2024

Sl. No.	Particulars	Details
1.	Name of the Mines	Kiriburu
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Forest Area – 2897.4990 Ha Non forest Area - 0 Total Lease Area – 2897.4990 Ha.
3.	Mine code	30BHR27016
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/5662/2011
5	Name of the lessee, Address, Phone, email and fax number	Steel Authority of India Ltd. Industry House 5th & 6th Floor 10, Camac Street Kolkata West Bengal Fax: - 033-22822316/0462/3385 Phone: - 033-22822316/0462
6	Village	Kiriburu
7	Taluka/Mandal	Chaibasa
8	District	Singhbhum (West)
9	Pin code	833222
10	State	Jharkhand
11	Post Office	Kiriburu
12	Nearest Police Station	Kiriburu
13	Nearest Railway station	28/03/1960
14	Date of Grant of Mining Lease	28/03/1960
15	Date of Execution	28/03/1960
16	Date of Opening of Mine	01/08/1963
17	Date of First Renewal, if applicable and its period & expiry	28/03/1990 to 27/03/2010, Dated 28/03/1990
18	Date of second Renewal, if applicable and its period & expiry	28/03/2010 to 27/03/2030, 08/11/2019, (MMGC Rule 2015)
19	Date of submission of renewal application if Mining operations are continuing under deemed extension	28/03/2010 to 27/03/2030, 08/11/2019, (MMGC Rule 2015)
20	Name of the Nominated Owner with Address, phone, email ,fax number and date of appointment	Sri Birendra Kumar Tiwari Director Incharge, Bokaro Steel Plant, Bokaro Steel City PIN- 827001 Date of appointment 20/04/2024

21	Name of the Mine Agent with Address, phone email, fax number and date appointment in mines.	Sri Kamlesh Rai CGM (Mines), Kiriburu Iron Ore Mine, Kiriburu, West Singhbhum, Jharkhand PIN- 833222 Date of appointment 01/07/2021
22	Name of the Mines Manager with Address, Phone, email, fax number and date of appointment	Sri Ram Singh GM I/C(Mining), Kiriburu Iron Ore Mine, Kiriburu, West Singhbhum, Jharkhand PIN- 833222 Date of appointment 22/06/2018
23	Name of the mining engineer, qualification and total experience with Address, phone, email, fax number and date of appointment in Mines.	Sri Dipen Lohar GM (Mining), Kiriburu Iron Ore Mine, Kiriburu, West Singhbhum, Jharkhand PIN- 833222 Date of appointment 01/12/2015
24	Whether Geologist and Mining Engineer appointed in Mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	1. Mining Plan, 314(3)/2009-MCCM(C Z)/MP, Dated: - 29/01/2010, From 01/04/2010 to 21/03/2015. 2. Review of mining plan, KOL/JHK/SB(W)/Fe/M P-141.Vol II, Dated: - 13/10/2015, From 01/04/2015 to 31/03/2020. 3. Modification in RMP, RAN/WSB/Fe/MP-02/2 018-19, Dated: - 13/06/2018, From 01/04/2018 to 31/03/2020. 4. Modification in RMP, RAN/WSB/Fe/MP-19/2 019-20, Dated: - 20/12/2019, From 01/11/2019 to 31/03/2020. 5. Review of mining plan, RAN/WSB/Fe/MP-09/2 019-20, Dated: - 27/01/2020, from 01/04/2020 to 31/03/2025. 6. Modification in RMP, RAN/WSB/Fe/MP-26/2 021-22, Dated: - 10/03/2022, From 01/03/2022 to 31/03/2025.
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Modification of MP – RAN/WESTSINGHBHUM/Fe/MMP-6/2023-24, Dated: - 07/12/2023, from 2023-24 to 2024-25.
27	Mineral(s) granted in lease and proved for mining	Iron Ore
28	Method of Mining(Opencast, Underground)	Opencast
29	Category (Fully Mechanized, Others or Manual)	Fully Mechanized
30	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.)

Sr.NO	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
1a	Backlog of previous year	Nil	Nil	Stage-II forest clearance is in process.
1b	Exploration over lease area for Geological axis 1 or 2.	Geological Mapping in Scale 1:2000, Area – 172.20 Ha.	Achieved	

1c	Exploration Agency & Expenditure in lakhs Rupee during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	1. Remaining Area in G2 – 88.69 Ha. 2. Remaining area in G3 – 961.44 Ha. 3. Remaining Area in G4 – 1676.87 Ha.
1e	Balance reserves as on 01.04.2024	NA	111- 15684520 Tonnes 121 – 1890000 Tonnes	Violation under rule 45(7) issued for discrepancy of figures in part V in annual returns.
1f	General remarks of inspecting officer on geology, exploration etc.		Stage-II forest clearance is in process.	

Development

Sr.NO	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
2a	Location of development w.r.t lease area	<ol style="list-style-type: none"> 1. From 22 Deg 04 Min 41.25 Sec North – 85 Deg 16 Min 07.91 Sec East. To 22 Deg 04 Min 44.36 Sec North – 85 Deg 15 Min 58.50 Sec East. 2. From 22 Deg 04 Min 36.99 Sec North – 85 Deg 16 Min 12.71 Sec East To 22 Deg 04 Min 47.45 Sec North – 85 Deg 16 Min 12.24 Sec East. 3. From 22 Deg 04 Min 19.12 Sec North – 85 Deg 16 Min 07.28 Sec East To 22 Deg 04 Min 18.13 Sec North To 85 Deg 15 Min 59.63 Sec East. 4. From 22 Deg 03 Min 52.25 Sec North – 85 deg 16 Min 01.93 Sec East to 22 deg 04 Min 2.23 Sec North – 85 Deg 16 Min 02.53 Sec east. 	<ol style="list-style-type: none"> 1. From 22 Deg 04 Min 41.25 Sec North – 85 Deg 16 Min 07.91 Sec East. To 22 Deg 04 Min 44.36 Sec North – 85 Deg 15 Min 58.50 Sec East. 2. From 22 Deg 04 Min 36.99 Sec North – 85 Deg 16 Min 12.71 Sec East To 22 Deg 04 Min 47.45 Sec North – 85 Deg 16 Min 12.24 Sec East. 3. From 22 Deg 04 Min 19.12 Sec North – 85 Deg 16 Min 07.28 Sec East To 22 Deg 04 Min 18.13 Sec North To 85 Deg 15 Min 59.63 Sec East. 4. From 22 Deg 03 Min 52.25 Sec North – 85 deg 16 Min 01.93 Sec East to 22 deg 04 Min 2.23 Sec North – 85 Deg 16 Min 02.53 Sec east. 	
2b	Separate benches in top soil, overburden and mineral (Rule 15)	Top Soil – Nil OB – 5 Mineral - 7	Top Soil – Nil OB – 3 Mineral - 6	

2c	Stripping ratio or ore to OB ratio	1:0.24	1:0.11	
2d	Quantity of topsoil generation in m ³	Nil	Nil	
2e	Quantity of overburden generation in m ³	845193 M3	389952 M3	
2f	General remarks of inspecting officer on development etc.		Tree felling from forest department is in process but not permitted as on date.	

Exploitation

Sr.NO	Item	Proposal (2023-24)	Actual Work (2023-24)	Remarks
3a	Number of pits proposal for production	1	1	
3b	Quantity of ROM mineral production proposed	4495395 Tonnes	3615480 Tonnes	
3c	Recovery of salable/usable mineral from ROM production	100 %	100%	
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 segregating from ROM	Mechanized	Mechanized	Crushing and screening Plant
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	Yes	Yes	110 mm, SME, Electronic delay detonators.
3k	Provision of mining machineries in mineral benches	Yes	Yes	Shovel dumper combination.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	DGMS permission obtained
3m	Total area covered under excavation/pits	172.20 Ha	172.00 Ha	
3n	Ore to OB ratio for the pit/mine during the year	1:0.24	1:0.11	

3o	Total area put in use under different heads at the end of year (In Ha)	Mining	172.20	Mining	172.00	Kiriburu and Meghatuburu combined as per proposal Approved MP.
		Waste Dump	41.00	Waste Dump	41.00	
		Mineral Beneficiation Plant	40.00	Mineral Beneficiation Plant	40.00	
		Mineral Storage	27.00	Mineral Storage	26.00	
		Tailing Pond	40.93	Tailing Pond	40.93	
		Roads, Conveyors, pipeline, electric line, Railway	140.00	Roads, Conveyors, pipeline, electric line	140.00	
		Infrastructure	23.00	Infrastructure	23.00	
		Township	131.00	Township	131.00	
		Topsoil	0.00	Topsoil	0.00	
		Effluent Treatment Plant	0.00	Effluent Treatment Plant	0.00	
		Others (Magazine, Rainwater harvesting, Back Filling Area1)	110.96	Others (Magazine, Rainwater harvesting, Back Filling Area-1)	110.96	
Green Belt	10.04	Green Belt	6.25			
3p	Production of ROM mineral during last five-year period, as applicable	2019-20	7110000 T	2019-20	3924450 T	
		2020-21	6390000 T	2020-21	3828870 T	
		2021-22	6370000 T	2021-22	4047570 T	
		2022-23	5909523 T	2022-23	4053060 T	
		2023-24	4495395 T	2023-24	3615480 T	
3q	General remarks of inspecting officer on method of mining etc.			Tree felling from forest department is in process but not permitted as on date. Hence development of pit was not done.		

Solid Waste Management-Dumping

Sr.NO	Item	Proposal (2023-24)	Actual Work (2023-24)	Remarks
4a.	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Nil	Nil	
4b	Location of topsoil, & OB & mineral reject dumps (Give coordinates with mRL)	<ol style="list-style-type: none"> From 22 Deg 04 Min 15.06 Sec North – 85 deg 15 Min 54.48 Sec East To 22 Deg 04 Min 14.94 Sec North – 85 Deg 15 Min 57.09 Sec East. From 22 Deg 04 Min 22.55 sec North – 85 deg 15 Min 48.28 Sec East to 22 Deg 04 Min 03.72 Sec North – 85 Deg 15 Min 52.82 Sec East. 	<ol style="list-style-type: none"> From 22 Deg 04 Min 15.06 Sec North – 85 deg 15 Min 54.48 Sec East To 22 Deg 04 Min 14.94 Sec North – 85 Deg 15 Min 57.09 Sec East. 	Tree felling from forest department is in process but not permitted as on date. Backfilling is being done on non mineralized area.
4c	Number of dumps within lease area and outside lease area	2	2	Within Lease Area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Within Lease	Within Lease	
4e	Number of active & alive dumps	Nil	Nil	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	Nil	Nil	One dump is stabilized by plantation.
4h	Whether Retaining wall or garland drain all along dumps	Nil	Nil	

	are there			
4i	Length of Retaining wall or garland drain all along dump	Nil	Nil	
4j	Number of settling ponds	1	1	
4k	Specific comments of inspecting officer on waste dump management			Tree felling from forest department is in process but not permitted as on date. Backfilling is being done on non mineralized area for the waste generated during the year.

Solid Waste Management-Backfilling

Sr.NO	Item	Proposal (2023-24)	Actual Work(2023-24)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Yes	Yes	Backfilling is being done on non mineralized area from the waste generated during the year.
5b	Area under backfilling of mined out area	2.861 Ha	2.09 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Nil	Nil	
5d	Total area fully reclaimed & rehabilitated	2.86 Ha	2.01 Ha	
5e	General remarks of inspecting officer on backfilling, reclamation etc.			Violation under Rule 11(1) for Progressive reclamation and rehabilitation is given.

Progressive Mine Closure Plan

Sr.N O	Item	Proposal (2023-24)	Actual Work (2023-24)	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)	Nil	Nil	
	ii) Afforestation done (ha)	Nil	Nil	
	iii) No. of sapling planted during the year	Nil	Nil	
	iv) Cumulative no. of plants	Nil	Nil	
	v) Any other specific method of rehabilitation	Nil	Nil	
	vi) Cost incurred on watch & care during the year	Nil	Nil	
6c	Compliance on reclamation and rehabilitation by back filling			
	i) Voids available for backfilling (L x B x D)	200 Mtr x 100 Mtr x 30 Mtr	150 Mtr X 75 Mtr X 30 Mtr	
	ii) Void filled by waste/tailings	2.86 Ha	2.09 Ha	
	iii) Afforestation on the backfilled area	2.86 ha	2.09 ha	
	iv) Rehabilitation by making water reservoir	Nil	Nil	
	v) Any other specific means	Nil	Nil	
6d	Compliance of Rehabilitation of waste land within lease			
	i) Afforestation	Nil	Nil	
	ii) Area rehabilitated (ha)	Nil	Nil	
	iii) Method of rehabilitation	Nil	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Air, Water, Noise Monitoring under CPCB rules	Air, Water, Noise) Monitoring Done Quarterly under CPCB Rules	
6f	General remarks of inspecting & progressive closure operations.		Tree felling from forest department is in process but not permitted as on date. Backfilling is being done on non mineralized area for the waste generated during the year.	

Mineral Conservation

Sr.NO	Item	Proposal (2023-24)	Actual Work (2023-24)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Nil	Nil	All ROM is transported to crushing plant by dumper and after size segregation dispatched to captive steel plant located at Bokaro and Rourkela and Bhilai.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical	Mechanical	Only crushing and screening is done.
7c	Different grade of mineral sorted out at mines	58 % to below 60 % Fe 60 % to Below 62 % Fe 62 % To 65 % Fe 65 % and above	58 % to below 60 % Fe 60 % to Below 62 % Fe 62 % To 65 % Fe 65 % and above	
7d	Any beneficiation process at mines	Nil	Nil	Crushing and screening at plant.
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues		All ROM is transported to crushing plant by dumper and after crushing and sizing segregation dispatched to captive steel plant located at Bokaro and Rourkela and Bhilai.	

Environment

Sr.N O	Item	Proposal (2023-24)	Actual Work (2023-24)	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Nil	Nil	No fresh area is broken. Mining limited to broken area only.
8b	Concurrent use or storage of topsoil	Nil	Nil	
8c	Separate dumps for overburden, waste rock rejects and fines (Rule 33)	Nil	Nil	Backfilling is being done on non mineralized area by the waste generated during the year.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes	Yes	Proposed- 2.86 Ha Actual -2.01 Ha

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Yes	Proposed- 2.86 Ha Actual -2.01 Ha
8f	Baseline information on existence of plantation & additional plantation done (Rule 42)	1500	1250	
8g	Survival rate	80%	65 %	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	Two water sprinklers of 28 KL capacity.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area.			Backfilling is practiced and then reclaiming the land by suitable native plantation. Air, water and noise monitoring done as per CPCB standards.

Compliance of Rule 45

Sr.NO	Item	COMMENTS		Remarks
9a	Status of submission of Monthly and Annual returns	Submitted		
Sr.NO.	Item			Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Eng- Mr. Dipen Lohar Geologist- Mr. Subrat Pattnaik Manager- Mr. Ram Singh		
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	1. Area under pit – 107.20 Ha 2. Reclaimed Area – 7.50 Ha. 3. Dumps – 17 Ha		
9d	Scrutiny of Annual return on Afforestation	2.01 Ha / 1250		
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil		
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Nil		
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost.	Ex-Mine Price- 2852.62		
9h	Scrutiny of Annual return on fixed assets	1. Industrial Building – 30447184/- 2. Land – 855124680/- 3. Residential Building – 134532852/- 4. Plant and Machinery – 582233988/- 5. Repairs and exploration etc. – 0/- 6. Total - 1602338704/-		

9i	Scrutiny of Annual return on mining machineries	<ol style="list-style-type: none"> 1. Dumper 100.000 Tonne – 7 2. Shovel (Hydraulic) 9.500 Cum- 3 3. Dozer 416.000 Hp - 6 4. Motor Grader 280.000 Hp - 2 5. Back Hoe 1.620 Cum - 1 6. Blast Host Drill 165.000 Mm - 4 7. Crane 13.000 Tonne- 1 8. Crane 20.000 Tonne- 1 9. Water Tanker 28000.000 Litre - 2 	
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Details of violations observed during current inspection and compliance position of earlier violation pointed – Earlier Violation:
- Violation letter issued under Rule 11(1), Rule-33 and Rule 34(1) of MCDR 2017 for non compliance of approved proposals. Lessee intimated that proposed boreholes could not be drilled due to want of stage-II forest clearance. Violation 11(1) dated 22/09/2022 complied.

Present Violation: -MCDR 2017 Rule 11(1) dated 16/10/2024 Reclamation and Rehabilitation as proposed in approved Modification of MP and MCDR – 2017 Rule 45(7) Part – V (General Geology and mining).

Date: 28/11/2024

Vikrant M. Khedikar
Sr. Assistant Controller of Mines,
Indian Bureau of Mines, Ranchi,
(Name of inspecting officer with designation and date)