

SL.N	PARTICULARS	DETAILS
1	File No.	
2	Name & Designation of the inspecting officer	Shri D. Dash , SMG
3	Date of Inspection	11/11/2022
4	Date of Last Inspection & Officer	07/03/2022, Shri Arun Kumar, RCOM
5	Accompanying mine personnel	1. Mine Manager Shri Rakesh Singh 2. Geologist- Shri Sanjay Shrivastav 3. Geologist Shri S.N.Tripathi 4. Astt. Manager- Shri Ajay Chaturvedi
6	Name of the Mine	Rajhara Mech Mine
7	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease- 220.42 Ha (Pandridalli and RajharaPahar Lease) Under Forest- 100.76 Ha, Non-forest- 119.66 Ha
8	Mine code	30MPR13005
9	IBM Registration Number under rule 45 of MCDR, 1988	IBM/5662/2011
10	Name of the lessee, Address, phone, email and fax number	STEEL AUTHORITY OF INDIA LIMITED (SAIL) BHILAI STEEL PLANT Ispat Bhawan, Lodhi Road, New Delhi -110003 director.rml.sail@gmail.com
	Village	Pandridalli
	Taluka/Mandal	Dondi
	District	Balod
	Pincode	491228
	State	Chhattisgarh
	Post office	DalliRajhara
11	Nearest police station	DalliRajhara
12	Nearest Railway station	DalliRajhara
13	Date of Grant of Mining Lease	01.06.1958
14	Date of Execution	05.03.1962
15	Date of opening of Mine	31.12.1959
16	Weekly day of rest	Wednesday
17	Date of first Renewal, if applicable and its period & expiry Date of second Renewal, if applicable and its period &	01.06.1988 to 31.05.1998 01.06.1998 to 27.04.2003

	expiry	28.04.2003 to 27.04.2023
18	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri ANIRBAN DAS GUPTA Director I/c Bhilai Steel Plant 2 nd Floor, Ispat Bhawan, Sector-1, Bhilai, 490001 anirbandasgupta@sail.in , ph- 07882862001, Date of appointment- 31/07/2020
19	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Chintala SRIKANT, Agent cum GM (Mines), IOC Add-Room no-53, Administrative Building, IOC, Rajhara Post-DalliRajhara, Dist- Balod, Pin- 491228(C.G) Ph-9407982915, Email- schintala@sail.in Date of appointment- 04/08/2020
20	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Rakesh Singh Add-Room no-51, Administrative Building, IOC, Rajhara Post-DalliRajhara, Dist- Balod, Pin- 491228(C.G) Ph- 9407982855, Email- rakeshsingh1@sail.in Date of appointment- 18/10/2018
21	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Rakesh Singh Qualification-Degree In Mining Engineering, Experience- 15 yrs Add-Room no-51, Administrative Building, IOC, Rajhara Post-DalliRajhara, Dist- Balod, Pin- 491228(C.G) Ph- 9407983618, Email- rakeshsingh1@sail.in Date of appointment- 18/10/2018
22	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	S.K.SHRIVASTAVA M.Sc. M.Tech. M Phil (GEOLOGY) Experience- 25 yrs. Room No. 19 Administrative Building, IOC, Rajhara Post-DalliRajhara, Dist- Balod, Pin- 491228(C.G) Ph 9407984104, Email- sksrivastava2@sail.in Date of appointment- 18/10/2022
23	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	MINING PLAN – 9.01.2006 No 314(3)/2004-MCCM(CZ)/MP-23
24	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Review of Mining Plan approved vide letter No. Balod/Iron/Mining/1146/2018 on Dated 25/05/18 for the period from 2018-19 to 2022-23
25	Mineral(s) granted in lease and proved for mining	HEMATITE (IRON ORE)
26	Method of Mining (Opencast, Underground)	OPENCAST

27	Category (Fully Mechanized, Others or Manual)	FULLY MECHANISED
28	Captive/Non-Captive	CAPTIVE
29	EC for ROM Prod: Date of Issue:	EC clearance not obtained. Matter is subjudice in High court of Bilaspur.
30	FA amount Rs Valid up to:	Rupees five crores valid up to 31.03.2023

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

1.0 EXPLORATION

SN	ITEM	PROPOSALS (2021-22)	ACTUAL WORK (2021-22)	REMARKS
1a	Backlog of previous year	NIL	NIL	Violation of Rule 11(1) of MCDR, 2017 was pointed out during previous inspection. The lessee in his response vide dated 30.03.222 informed about work order to be awarded. Violation of 11 (1) of MCDR, 2017 is pointed out.
1b	Exploration over lease area for Geological axis 1 or 2.	10 boreholes during the period from 2019-20 to 2020-21	NIL	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NIL	NIL	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	
1e	Balance reserves as 01.04. 2022 (million tonnes)	16.099	20.19 MT	
1f	General remarks of inspecting officer on geology, exploration etc.	Exploration in form of 10 boreholes were proposed during the year 2019-20 to 2020-21 against which no exploration has been carried out. Violation of Rule 11(1) of MCDR, 2017 was pointed out during previous inspection. The lessee in his response vide dated 30.03.222 informed about work order to be awarded. Violation of 11 (1) of MCDR, 2017 is pointed out during the current inspection since the violation is outstanding.		

2.0 DEVELOPMENT

SN	ITEM	PROPOSALS (2021-22)	ACTUAL WORK (2021-22)	REMARKS
2a	Location of development w.r.t. lease area	Co-ordinates E9855, N7690 E9950, N7350 E10660, N7450 E10710, N8050	Co-ordinates E9855, N7690 E9950, N7350 E10660, N7450 E10710, N8050	Location of development of quarry as proposed.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	proposed	Being maintained	
2c	Stripping ratio or ore to OB ratio	1:2.80	1:2.06	The development of quarry is marginally lower side .
2d	Quantity of topsoil generation in Tonnes	NIL	NIL	
2e	Quantity of overburden generation in m ³	70,00000 tonnes (2021-22)	28,88, 909 T	The waste handling is marginally lower side than proposed.
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The quarry development is on the location as per proposal in approved Mining Plan The waste handling is marginally on lower side due to less development which may be due to less demand for production of ore from captive steel plant.		

3.0 EXPLOITATION

S.N.	ITEM	PROPOSAL (2021-22)	ACTUAL WORK (2021-22)	REMARK
3a	Number of pits proposed for production	01	01	As proposed.
3b	Quantity of mineral production proposed	2556754 T (2020-21) 2500000 T (2021-22)	1325773.44 T 1400157.90 T	The quantity of ore production is on lower side due to less demand from captive steel plant.
3c	Recovery of saleable/usable mineral from production	Full recovery	Full recovery	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral reject generation	Nil	Nil	

	and threshold value declared				
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	Mechanised	Mechanised		
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	Blast hole drilling using IDM-30 & ICM-260 drill machines	Blast hole drilling using IDM-30 & ICM-260 drill machines		
3k	Provision of mining machineries in mineral benches	Hydraulic excavators, Dump trucks, dozers, grader.	Hydraulic excavators, Dump trucks, dozers, grader		
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	YES (10 Mtrs.)	YES	Height of benches maintained as proposed.	
3m	Total area covered under excavation/pits	184.74 Ha	111.97 Ha	As per Annual return for the year 2021-22.	
3n	Ore to OB ratio for the pit/mine during the year	1:2.80(T/T)	1:2.06 (T/T)		
3o	Total area put in use under different heads at the end of year	Details attached in last page.			
3p	Production of mineral during last five years period, as applicable (tones)	2018-19	2200000	2018-19	1459170
		2019-20	2200000	2019-20	1248921
		2020-21	2556754	2020-21	1325774
		2021-22	2500000	2021-22	1400157.9
		2022-23	3500000	2022-23	958078
				Up to month of Oct-2022	
3q	General remarks of inspecting officer on method of mining etc.	The quantity of ore production is on lower side due to less demand from captive steel plant.			

4.0 SOLID WASTE MANAGEMENT-DUMPING

SN	ITEM	PROPOSALS (2021-22)	ACTUAL WORK (2021-22)	REMARKS
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Overburden dump proposed	Separate OB dump maintained.	No top soil generation reported during the year.
b	Location of topsoil, OB & mineral reject dumps	<p>Dump-1 Between E 9000 to E9400 & N 7400 to N 7600</p> <p>Dump- 2 E9400 to E9800 & N 7200 to N7400</p> <p>Dump-3 E10800 to E 11200 & N 7000 to N7800</p>	<p>Dump-1 & 2 (merged) Between E 9000 to E9800 & N 7200 to N 7800</p> <p>Dump-3 E10800 to E 11200 & N 7000 to N7800E 9000 to 9400 & N 8000 to N 7800</p> <p>Dump 4 E8600 to E9200 N7800 to N8200</p>	A new dump has been developed on north western side of the lease against no such proposal. Violation of Rule 11(1) of MCDR, 2017 is pointed out.
4c	Number of dumps within lease area and outside lease area	Within Lease 3	Within Lease 4	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	
4e	Number of active & alive dumps	3	4	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	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 dump	0.5 Km	1.5Km	

4j	Number of settling ponds	NIL	NIL
4k	Specific comments of inspecting officer	The proposed dump on western side and waste dump on already backfilled area have been merged to form a single dump. Waste have been dumped on eastern side as proposed. But, a new dump has been developed on north western side of the lease area against no such proposal. The violation of Rule 11 (1) of MCDR, 2017 is pointed out.	

5.0 SOLID WASTE MANAGEMENT-BACKFILLING

SN	ITEM	PROPOSALS (2021-22)	ACTUAL WORK (2021-22)	REMARKS
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Mined out	Mined out	
5b	Area under backfilling of mined out area (ha)	A .420*300*12 B.380*160*12	A 275*180*8 B.200*120*8	Further waste dumping have been carried out on backfilled area.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	NA	NA	
5d	Total area fully reclaimed & rehabilitated	NA	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Backfilling have been carried out as proposed. Further dumping on backfilled area has been carried out.		

6.0 PROGRESSIVE MINE CLOSURE PLAN

SN	ITEM	PROPOSALS (2021-22)	ACTUAL WORK (2021-22)	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.	As per guideline	Submitted	
6b	Management of worked/mined out benches	NIL	NIL	
	i) Area available for rehabilitation (ha)			
	ii) Afforestation done (ha)			
	iii) No. of saplings planted during the year	200	210 (within ML) 11700(outside	

			lease)	
	iv) Cumulative no. of plants	1200	615 Nos.(within ML)	
	v) Any other specific method of rehabilitation	None	None	
	vi) Cost incurred on watch & care during the year	Not specific	Not furnished.	
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	A.420*300*12 B.380*160*12 Waste 100 = plants(2020-21) 50 (2021-22)	A 250*150*8 B.150*100*8 Waste Nil	No plantation has been carried out in backfilled area against the proposal.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	6500 2.50 ha Plantation	Nil Nil Plantation	Violation of Rule 11 (1) of MCDR, 2017 is pointed out.
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Proposed	complied	
6f	General remarks of inspecting officer on PMCP compliance & progressive	No plantation has been carried out in backfilled area against the proposal. Similarly, against proposal of plantation of 6500 saplings in 2.5 ha area on waste land during the year 2021-22, no planation has been done. Violation of 11 (1) of MCDR, 2017 is pointed out.		

7.0 MINERAL CONSERVATION

SN	ITEM	PROPOSALS (2021-22)	ACTUAL WORK (2021-22)	REMARKS
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM dispatch	ROM dispatch	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	NIL	NIL	
7c	Different grade of mineral sorted out at mines	Nil	Nil	
7d	Any beneficiation process at mines	No	No	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The run of mine ore after crushing and sizing are directly sent to plant for consumption. No sorting is carried out.		

8.0 ENVIRONMENT

SN	ITEM	PROPOSALS (2021-22)	ACTUAL WORK (2021-22)	REMARKS
8a	Separate removal and utilization of topsoil (Rule 32)	NA	NIL	No top soil generation within the leasehold. Violation of Rule 11(1) of MCDR, 2017 is pointed out for not carrying out plantation on backfilled area during the year 2021-22.
8b	Concurrent use or storage of topsoil	Nil	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed	Being maintained.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Waste generated is proposed for backfilling and further restoration	Done as per proposal.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling is proposed.	Done as proposed.	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	2000 fruit plants in 5 ha area as on 01.04.2018. Additional plantation of 50 saplings proposed within the leasehold.	Within ML =0 Outside ML =11500 Total =11500	
8g	Survival rate	Nil	Survival rate = 97%(Within ML)	

			=90%(Outside lease)	
8h	Water sprinkling on roads to control airborne dust	Proposed	Being done	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	No top soil generation within the leasehold. Violation of Rule 11(1) of MCDR, 2017 is pointed out for not carrying out planation on backfilled area during the year 2021-22.		

9.0 COMPLIANCE OF RULE 45

S. N.	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9 a	Status of submission of monthly and Annual returns	Annual return for the year 2021-22 is submitted on 28.06.2022. Monthly reruns have been submitted up to November, 2022.	Submitted on time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Shri Rakesh Singh, Mining Engineer Shri Sanjay Srivastava , Geologist	Present during the visit.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings: 111.970 ha, Reclaimed/Rehabilitated : 24.480 ha, Used for waste disposal: 38.260 ha, Occupied by plant, buildings, residential, welfare buildings & roads : 3.820 ha	Appears to be correct.	
9d	Scrutiny of Annual return on afforestation	Within ML area: 210 saplings Outside ML: 11, 700 saplings	Appears to be correct.	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Mineral rejects : Nil	Appears to be correct.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening stock: 54704.200 tonnes, Closing Stock: 6107.68 tonnes	Appears to be correct.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex Mine price: Rs 2163 same as cost of production since this is a captive mine.	Appears to be correct.	

9i	Scrutiny of Annual return on fixed assets	Fixed assets: Rs 395937977	Appears to be correct.	
9k	Scrutiny of Annual return on mining machineries	CRUSHER 900.000 T/H 1 Electrical Opencast CRUSHER 750.000 T/H 1 Electrical Opencast BLAST HOST DRILL 152.000 MM 3 Non Electrical Opencast WATER TANKER 28000.000 LITRE ,2 Non Electrical Opencast MOTOR GRADER 164.000 HP 1 Non Electrical Opencast DOZER 410.000 HP 4 Non Electrical Opencast DUMPER 60.000 TONNE 6 Non Electrical Opencast DUMPER 50.000 TONNE 3 Non Electrical Opencast SHOVEL (HYDRAULIC) 5.000 CUM 2 Non Electrical Opencast SHOVEL (HYDRAULIC) 4.500 CUM 4 Non Electrical Opencast	Appears to be correct.	

10- Details of violations observed during current inspection and compliance position of earlier violation

The details of violations observed during the current inspection as below:

नियम	उल्लंघन के प्रकार का ब्यौरा
11(1)	<p>The mining operations are required to be carried out in accordance with the Mining Plan approved, modified or reviewed by Indian Bureau of Mines. However, the mining operations have not been observed carried out in accordance with Review & updation of Mining Plan approved vide letter No. Balod/Iron/Mining/1146/2018 on Dated 25/05/18 for the period from 2018-19 to 2022-23 to the extent indicated below:</p> <p>(i) Exploration by drilling of 10 boreholes were approved during the period from 2019-20 to 2020-21. However, against which no exploration has been reported carried out. Violation in this respect was pointed out vide this office letter dated 06.04.2022. Yet, the same has not been complied with so far.</p> <p>(ii) 7.5 m area within & along the lease boundary (safety zone) was found to be encroached by carrying out excavation at number of places that is between boundary pillar 49D to E, 36A to 49A, 37 to 38, 38 to 51 and 51 to 52 without such approval.</p> <p>(iii) A new waste dump has been developed on north western side of the lease without such approval.</p> <p>(iv) No plantation has been carried out on backfilled area against approval of 50 saplings during the year 2021-22. Further, against approval of plantation of 6500 saplings in 2.5 ha area on waste land during the year 2021-22, no planation has been done.</p>

Violations pointed out during the previous inspection

During the previous inspection dated 08.03.2022 by Shri Arun Kumar, RCOM , violation of 11(1) of MCDR, 2017 was pointed out. The violation is still outstanding.

Date:

(D.Dash)

Regional Mining Geologist