

MCDR INSPECTION REPORT

General

| S. N. | Particulars | Details |
|-------|--|---|
| 1 | Name of the Mine | Mahamaya-Dulki Lease (Mahamaya Iron Ore Mine & Dulki Iron Ore Mine) |
| 2 | Date of Inspection: | 30.12.2024 |
| 3 | Name of Inspecting Officer | Shri S. K. Mahapatra, (Assistant Controller of Mines) |
| 4 | Name of official accompanying inspection | Shri Arun Kumar GM cum Agent (Mahamaya & Dulki Mines) |
| 5 | Last date of Inspection & Officer | 27.07.2023, Shri D Dash, RMG |
| 6 | Total Lease Area (Ha) with breakup of Non-forest and forest land | Total Lease Area -1522.67 Ha. Forest area-1522.67 Ha. |
| 7 | Minecode | 30MPR13004 |
| 8 | IBM Registration Number under rule 45 of MCDR, 1988 | 5662/IBM/2011 |
| 9 | Name of the lessee, Address, phone, email and fax number | Steel Authority of India Limited, Bhilai Steel Plant |
| 10 | Village | Mahamaya-Dulki |
| 11 | Taluka/Mandal | Mahamaya/Manpur |
| 12 | District | District Balod and District Mohla- Manpur-Ambagarh-Chouki |
| 13 | Pin code | 491228 |
| 14 | State | Chhattisgarh |
| 15 | Post office | Mahamaya/Manpur |
| 16 | Nearest police station | Mahamaya |
| 17 | Nearest Railway station | Dalli- Rajhara |
| 18 | Date of Grant of Mining Lease | 04.11.1971 |
| 19 | Date of Execution | 04.11.1971 |
| 20 | Date of opening of Mine | 04.11.1971 |
| 21 | Date of expiry of lease period | 03.11.2041 |
| 22 | Name of the Nominated Owner with Address, phone, email, fax number and date of appointment | Shri Anirban Dasgupta Director Incharge Bhilai Steel Plant, Ispat Bhawan Bhilai, Dist.- Durg, Chhattisgarh Date of apponitment : 30/09/2020, Email- dicoffice.bsp@sail.in |
| 23 | Name of the Mine Agent with Address, phone, email, fax number and date of appointment | Shri Arun Kumar GM cum Agent (Mahamaya & Dulki Mines), Off Address: IOC Administrative Building, Dalli-Rajhara, Dist.- Balod, Pin- 491228(C.G) Phone- 9407982920 DOA- : 01/01/2022 Email: arunkumar2@sail.in |

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| 24 | Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines | Shri Kumar Shivesh Mine Manager, Mahamaya Iron Ore Mine Mines Office, Iron Ore Complex. Phone No. 9407982883, Email: kumarshivesh@sail.in Date of appointment: 18/09/2016 |
| 25 | Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine | Shri Manish Jaiswal Mine Manager, Dulki Iron Ore Mine Mines Office, Iron Ore Complex. Phone No. 9407982884 Email: manishjaisawal@sail.in Date of appointment: 15/10/2022 Manish Jaiswal B Tech. (Mining Engg.), 18 years' experience, BSP Mines Office, Iron Ore Complex. Phone No. 9407982884, Email: manishjaisawal@sail.in Date of appointment: 01/01/2013 |
| 26 | Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine | Geologist is appointed Geologist: Shri R K Umare, M.Sc. Geology 20 years' experience, BSP Mines Office, Iron Ore Complex. Email: rkumre@sail.in Date of appointment: 19/06/2018 |
| 27 | Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56 & 57. | Yes, Geologist and Mining Engineer are appointed |
| 28 | 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 on 05.04.2021 (2021-22 to 2025-26) |
| 29 | Mineral(s) granted in lease and proved for mining | Hematite (Iron ore) |
| 30 | Method of Mining(Open cast, Underground) | OPENCAST |
| 31 | Category (Fully Mechanised, Others or Manual) | Fully Mechanised |
| 32 | Captive/Non Captive | CAPTIVE |
| 33 | Present EC Status | EC is granted for 1.46 Million Ton per annum Iron ore production. |
| 34 | Status of Financial Assurance | Financial Assurance of Rs 9,75,00,000.00 by way of bank Guarantee which were valid up to 31.03.2026. |

Exploration

| S.N. | Item | Proposals for, 2023-24 | Actual work during 2023-24 | Remark |
|------|--|------------------------------------|--|---|
| 1a | Backlog of previous year | Cumulative 122 holes were proposed | Cumulative 89 holes have been drilled | Violation of Rule 11(1) of MCDR issued on 08.01.2025. |
| 1b | Exploration over lease area for Geological axis 1 or 2. | G1 Level | G1 Level-74.64 Ha G2 Level- 44.36 Ha | Balance area to be explored=1403.66 Ha |
| 1c | Exploration Agency & Expenditure in lakh Rupees during the year | | Exploration agency- M/s South West Pinnacle, Gurgaon Expenditure- Rs. 52.63 Lakh | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | 1403.66 Ha | 1403.66 Ha | |
| 1e | Balance reserves as per latest approved document | | 111 - 9.538 MT 221 - 3.430 MT 334 - 17.710 MT Total resources- 31.688 MT | |
| 1f | General remarks of inspecting officer on geology, exploration etc. | | Exploration of G1- 74.65 Ha, G2-44.36 Ha, Total- 119.01 Ha. Balance area to be explored= 1522.67- 119.01=1403.66 Ha. Violation of Rule 11(1) of MCDR issued on 08.01.2025 for back log of exploration. | |

Development

| S.N. | Item | Proposals for, 2023-24 | Actual work during 2023-24 | Remark |
|------|---|--|--|--|
| 2a | Location of development w.r.t. lease area | M1 Pit: Easting 498550-499800 Northing 2265800-2266800 M2 Pit: Easting 498750-499850 Northing 2265000-2265200 M3 Pit: Easting 498900-499400 Northing | Excavations of iron ore have been carried out from 04 Pits only and no any excavation has been carried out in D1 Pit | Violation of Rule 11(1) of MCDR issued on 08.01.2025 |

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| | | 2264000- 2264700 D1 Pit: Easting 499000-499100 Northing 2262000-2262200 Bottom RL-675 D1 Pit: Easting 497500-497950 Northing 2261500-2261650 | | |
| 2b | Separate benches in topsoil, overburden and mineral (Rule 15) | Proposed | | Being maintained |
| 2c | Stripping ratio or ore to OB ratio | 1: 0.34 | | 1:0.20 |
| 2d | Quantity of topsoil generation in m3 | Nil | | Nil |
| 2e | Quantity of overburden generation in m3 | 5,01,263 | | 2,76,879 |
| 2f | General remarks of inspecting officer on development of pit w.r.t. type of deposit etc | It is observed during inspection that excavations of iron ore have been carried out from 04 Pits only and no any excavation has been carried out in D1 Pit. Development work observed lagging in the mine as against the proposal of 5,01,263 M3 of waste generation/removal during the year 2023-24 (stripping ratio 1:0.34), only 2,76,879 M3 (stripping ratio 1:0.2.) of waste material has been reported generated/removed. Violation of Rule 11(1) of MCDR issued on 08.01.2025. | | |

EXPLOITATION

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|----|---|------------|------------|--|
| 3a | Number of pits proposed for production | 5 | 4 | Work is done in Mahamaya Mine-M1,M2,M3 pits Dulki Mine-D3 Pit Work not done in D-1 pit |
| 3b | Quantity of ROM mineral production proposed | 1460000.00 | 1410669.36 | |
| 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 | N. | Item | Proposals for, 2023-24 |
| | | | | Actual work during 2023-24 |

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| 3f | Quantity of sub-grade mineral generation | Not applicable | Not applicable |
| 3g | Grade of sub-grade mineral generation | No sub-grade mineral | No sub-grade mineral |
| 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 | Mahamaya-Yes Dulki-No | Mahamaya-Yes (Rock Breaker is also used in addition to drilling) |
| 3k | Provision of mining machineries in mineral benches | Excavator, Pay loader, Tipper, Rock Breaker, Drill Machine, water Tanker | Dulki-No (Through Rock Breaker) Excavator, Pay loader, Tipper, Rock Breaker, Drill Machine, water Tanker |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Bench Height- up to 5.0 m | Bench Height- up to 5.0 m |
| 3m | Total area covered under excavation/pits | Not specified | 60.00 Ha |
| 3n | Ore to OB ratio for the pit/mine during the year | 1: 0.34 | 1:0.20 |
| 3o | Total area put in use under different heads at the end of year | Not specified | Mining 60.00 ha, Waste dump site 9.81 Ha Mineral Storage 2.34 ha, Infrastructure : 0.69 Ha Roads: 18.04 ha, Mineral separation plant: 0.8 Ha |
| 3p | Production of ROM mineral during last six-year period, as applicable | 2019-20 : 2500000.00 2020-21 : 2500000.00 2021-22 : 1460000.00 2022-23 : 1460000.00 | 2019-20 : 1456253 2020-21 : 1421242 2021-22 : 1361367 2022-23 : 1374446 2023-24: 1410669 |

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| 3q | General remarks of inspecting officer on method of | 2023-24: 1460000.00 It is observed during inspection that excavations of iron ore have been carried out from 04 Pits only and no any excavation has been carried out in D1 Pit. Violation of Rule 11(1) of MCDR issued on 08.01.2025. |
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Solid Waste management-Dumping

| S.N. | Item | Proposals for, 2023-24 | Actual work during 2023-24 | Remark |
|------|---|--|--|---------------------------------------|
| 4a | Separate dumping of topsoil, OB & mineral reject (Rule 33, 37) | Top Soil- area not proposed | Top Soil- area not proposed | |
| | | Mineral Reject- Not proposed | Mineral Reject- Not proposed | |
| | | Waste/OB- to be utilized in back filling | Waste/OB- utilized in back filling | |
| 4b | Location of topsoil, OB & mineral reject dumps | Only backfilling | Only backfilling in M1 area and M2 area | Previous top soil stack is maintained |
| 4c | Number of dumps within lease area and outside lease area | Only backfilling | Only backfilling | |
| 4d | Location of dumps w.r.t. ultimate pit limit | Only backfilling | Only backfilling | |
| 4e | Number of active & alive dumps | Nil | Nil | |
| 4f | Number of dead dumps | 01 | 01 | |
| 4g | Number of dumps stabilized | 01 | 01 | |
| 4h | Whether Retaining wall or garland drain all along dumps are there | Not proposed during 2023-24 | Retaining wall is already provided | |
| 4i | Length of Retaining wall or garland drain all along dump | 200 m length Retaining Wall | 200 m length Retaining Wall has been prepared. | |
| 4j | Number of settling ponds | Nil | Nil | Existing check dams: 20 Numbers |
| 4k | Specific comments of inspecting officer on waste dump management | Retaining wall is made as proposed. Backfilling in M1 area and M2 area is being carried as proposed. | | |

Solid Waste management-Backfilling

| S.N. | Item | Proposals for, 2023-24 | Actual work during 2023-24 | Remark |
|-------------|--|---|--|---------------|
| 5a | Status on part or full extraction of mineral from mined out area before starting backfilling | Backfilling is proposed in exhausted area of M1 Pit and M2 Pit | Backfilling is being practised in exhausted area of M1 Pit and M2 Pit | |
| 5b | Area under backfilling of mined out area | M1 pit- 2.90 Ha M2 Pit- 2.60 Ha Total area under backfilling- 5.50 Ha | M1 pit- 2.90 Ha M2 Pit- 2.60 Ha Total area under backfilling- 5.50 Ha. | |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36) | NIL | Old Top soil is used for plantation in existing dump in south eastern slope. | |
| 5d | Total area fully reclaimed & rehabilitated | 0.4 Ha in old dump | 0.4 Ha in old dump | |
| 5e | General remarks of inspecting officer on backfilling, reclamation etc | Backfilling in M1 area and M2 area is being carried as proposed. 0.4 Ha in old dump reclaimed & rehabilitated. | | |

Progressive Mine Closure Plan

| SL N. | Item | Proposals for, 2023-24 | Actual work during 2023-24 | Remark |
|--------------|---|-------------------------------|--|---------------|
| 6a | Whether Annual report on PMCP submitted on time and correctly - Rule 26(2). | Yes | Submitted on 29 th June, 2024 for the reporting year | |

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| 6b | Management of worked/mined out benches | | |
| | i) Area available for rehabilitation (ha) | Nil | Nil |
| | ii) Afforestation done (ha) | 0.4 Ha | 0.4 Ha |
| | iii) No. of saplings planted during the year | 250 | 250 |
| | iv) Cumulative no. of plants | NA | 34300 |
| | v) Any other specific method of rehabilitation | No | No |
| | vi) Cost incurred on watch & care during the year | Nil | Nil |
| 6c | Compliance on reclamation and rehabilitation by backfilling | M1-170*240*32 (area- 2.90 Ha) | M1-170*240*32 (area- 2.90 Ha) |
| | i) Voids available for backfilling (L X B X D) | M2-185*200*35 (area-2.60 ha) | M2-185*200*35 (area-2.60 ha) |
| | ii) Void filled by waste/tailings | | |
| | iii) Afforestation on the backfilled area | Void filling by waste | Void filling by waste total 0.4 ha. |
| | iv) Rehabilitation by making water reservoir | | |
| | v) Any other specific means | | |
| 6d | Compliance of Rehabilitation of waste land within lease | | |
| | i) Afforestation | Not proposed | Nil |
| | ii) Area rehabilitated (ha) | | |
| | iii) Method of rehabilitation | | |
| 6e | Compliance of Environmental monitoring (core zone & buffer zone) | Maintained | Maintained |
| 6f | General remarks of inspecting officer on PMCP compliance & progressive closure operations | Backfilling in M1 area and M2 area is being carried as proposed. 0.4 Ha in old dump reclaimed & rehabilitated. | |

Mineral Conservation

| S.N. | Item | Proposals for, 2023-24 | Actual work during 2023-24 | Remark |
|------|--|-----------------------------------|-----------------------------------|--------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Dry Screening and crushing of ROM | Dry Screening and crushing of ROM | |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical | Mechanical | Mechanical | |
| 7c | Different grade of mineral sorted out at mines | Fe- 45% to 55% | Fe- 45% to 55% Fe- above 55% | |
| 7d | Any beneficiation process at mines | Dry Screening and crushing | Dry Screening and crushing | |

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| | | of ROM | crushing of ROM |
| 7e | General remarks of inspecting officer on Mineral conservation & beneficiation issues | Dulki mine- Dry Screening and crushing of ROM | Mahamaya Mine- ROM dispatch |

Environment

| S.N. | Item | Proposals for, 2023-24 | Actual work during 2023-24 | Remark |
|------|---|--|---|--------|
| 8a | Separate removal and utilization of topsoil (Rule 36) | Nil | Being practiced | |
| 8b | Concurrent use or storage of topsoil | NA | Utilized in plantation | |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 37) | There is no reject. | There is no reject | |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Back filling | Back filling | |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Back filling | Back filling | |
| 8f | Baseline information on existence of plantation & additional Plantation done | NA | Total no. of plantation- 36932 | |
| 8h | Water sprinkling on roads to control airborne dust | Water sprinkling | Water sprinkling is being done by water tankers | |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | Aesthetic beauty in & around the mine area was good. | | |

Compliance of Rule 45

| S.N. | Item | COMMENTS | Remarks |
|------|--|--|--|
| 9a | Status of submission of Monthly and Annual returns | M.R. Submitted upto November-2024 A.R. Submitted upto 2023-24 on 29.06.2024 | |
| S.N. | Item | Details given in A.R. for the year 2022-23/ 2023-24 | Observation of I/Officer |
| 9b | Scrutiny of Annual return for information on | Mining Engineer and Geologist | Mining Engineer – Manish Jaiswal Present during |

Blast Hole drill
(105mm) - 01 No.
Water Tanker (10
KL)- 05 No.
Wheel Loader (1.7
m3)- 05

10. Drone Survey Information and data thereof.- Submitted

11. Status of compliance of MCDR, 2017 including therewith the rectification of outstanding violation of the rules.

(i) Violation of Rule 11(1) was pointed during earlier inspection. Compliance of the same observed.

(ii) Violation of Rule 11(1) & 31(4) pointed during current inspection and violation letter issued on 08.01.2025.

Date: 12.02.2025

(संजय कुमार महापात्र)
सहायक खान नियंत्रक
भारतीय खान ब्यूरो