

## MCDR INSPECTION REPORT

Mine Code : 38MEG03016

Date of Inspection : 22.01.2025

Name of Inspecting Officer: Sandeep kumar singh RCOM accompanied by Mr Abhishek Tiwari, JMG initiation.

### 1.0 GENERAL

| SN | Particulars  | Details   |
|----|--|---|
| 1  | Name of the Mine   | <b>LUMSHNONG LIMESTONE MINE</b>   |
| 2  | Total Lease Area (Ha) with breakup of Non-forest and forest land   | 66.98 Ha. (Total Lease Area)<br>04.68 Ha. (Forest), 62.30 Ha. (Non-Forest)  |
| 3  | Mine Code  | 38MEG03016  |
| 4  | IBM Registration Number under rule 45 of MCDR, 1988  | IBM/5471/2011   |
| 5  | Name of the lessee, Address, phone, email and fax number   | STAR CEMENT LIMITED<br>Village/P.O./P.S. – Lumshnong<br>East Jaintia Hills District, Meghalaya - 793 210  |
| 6  | Village  | Lumshnong   |
| 7  | Taluka/Mandal  | Khliehriat  |
| 8  | District   | East Jaintia Hills  |
| 9  | Pincode  | 793 210   |
| 10 | State  | Meghalaya   |
| 11 | Post office  | Lumshnong   |
| 12 | Nearest police station   | Lumshnong   |
| 13 | Nearest Railway station  | Bardarpur   |
| 14 | Date of Grant of Mining Lease  | 04.01.2017  |
| 15 | Date of Execution  | 10.01.2017  |
| 16 | Date of opening of Mine  | 21.09.2017  |
| 17 | Date of first Renewal, if applicable and its period & expiry   | Not applicable  |
| 18 | Date of second Renewal, if applicable and its period & expiry  | Not applicable  |
| 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   | <b>SH. PANKAJ KEJRIWAL</b><br>Star Cement Limited,<br>Village/P.O./P.S. – Lumshnong<br>East Jaintia Hills Dist., Meghalaya,<br><a href="mailto:pankajkejriwal@hotmail.com">pankajkejriwal@hotmail.com</a><br>Date of appointment: 13.08.2021  |
| 21 | Name of the Mine Agent with Address, phone, email, fax number and date of appointment  | <b>SH. D. V. RAMANAYYA</b><br>Star Cement Limited,<br>Village/P.O./P.S. – Lumshnong<br>East Jaintia Hills Dist., Meghalaya,<br>Mobile No. 94901-88024<br><a href="mailto:dvramanayya@starcement.co.in">dvramanayya@starcement.co.in</a><br>Date of appointment: 11.01.2018  |
| 22 | Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines                                      | <b>SH. SATYAJIT PALIA</b><br>Star Cement Limited,<br>Village/P.O./P.S. – Lumshnong<br>East Jaintia Hills Dist., Meghalaya,<br>Mobile No. 88370-75324<br><a href="mailto:satyajitpalia@starcement.co.in">satyajitpalia@starcement.co.in</a><br>Date of appointment: 01.06.2021   |
| 23 | Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine | <b>SH. SATYAJIT PALIA</b><br>Qualification: Diploma in Mining Engineering<br>Experience: 18 years<br>Star Cement Limited,<br>Village/P.O./P.S. – Lumshnong<br>East Jaintia Hills Dist., Meghalaya,<br>Mobile No. 88370-75324<br><a href="mailto:satyajitpalia@starcement.co.in">satyajitpalia@starcement.co.in</a><br>Date of appointment: 19.11.2021 |

| SN | Particulars   | Details   |
|----|---|---|
| 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.           | <b>Mining Plan:</b><br>Letter No.314(3)/2010-MCCM(CZ)/MP-37, dated 10.06.2011<br><b>Modification of Approved Mining Plan:</b><br>Period: 2017-18 to 2020-21<br>Letter No. IBM/GHY/MEG/EJNH/LST/MP-83, dated 19.06.2017              |
| 26 | Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any. | <b>Review of Mining Plan:</b><br>Period: 2021-22 to 2025-26<br>Letter No. IBM/GHY/MEG/EJNH/LST/MP-83, dated 27.08.2021<br>Modification of Review of Mining Plan Letter No. MCDR-MPCP0MPAS/2/2023-GUH-IBM_RO_GUH, dated: 23.01.2024. |
| 27 | Mineral(s) granted in lease and proved for mining   | Limestone   |
| 28 | Method of Mining (Opencast, Underground)  | Opencast  |
| 29 | Category (Fully Mechanised, Others or Manual)   | Fully Mechanised  |
| 30 | Captive/Non Captive   | Captive   |

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

#### Exploration

| SN | Item   | Proposals  | Actual work           | Remarks |
|----|--|--|-----------------------|---------|
| 1a | Backlog of previous year   | Nil  | Nil                   |         |
| 1b | Exploration over lease area for Geological axis 1 or 2.            | Nil  | 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 on 01.04.2024                                  |  | 89.395 million tonnes |         |
| 1f | General remarks of inspecting officer on geology, exploration etc. | Exploration over 66.56hectares area has been completed in G1 level and 0.42 hectares in G-3 levels by means of drilling 46 Nos. of core boreholes for a total drilling meterage of 3833.25m. |                       |         |

#### 2.0 DEVELOPMENT

| SN | Item  | Proposals   | Actual work   | Remarks  |
|----|---|---|---|--|
| 2a | Location of development w.r.t. lease area                     | <b>Easting</b><br>435969 to 436644<br><b>Northing</b><br>2783440 to 2784045 | <b>Easting</b><br>435970 to 436640<br><b>Northing</b><br>2783442 to 2784040 |  |
| 2b | Separate benches in topsoil, overburden and mineral (Rule 15) | Benches to be developed only in OB and Mineral.                             | Benches developed in OB and Mineral.  |  |
| 2c | Stripping ratio or ore to OB ratio                            | 1: 0.09   | <b>1:0.023</b>  |  |
| 2d | Quantity of topsoil generation in m <sup>3</sup>              | Nil   | Nil   |  |
| 2e | Quantity of overburden generation in m <sup>3</sup>           | 81,545.00   | 20,550.25   | Proposed OB generation could not be achieved due to present EC restriction (15 lakhs TPA). |

|    |   |  |
|----|---|--|
| 2f | General remarks of inspecting officer on development of pit w.r.t. type of deposit etc. | There are only one no mining pit of dimension 721 m length X 436 m Width X 72 m depths as of 31.03.2024 with One OB bench and 8 nos Ore bench. |
|----|---|--|

### 3.0 EXPLOITATION

| SN | Item   | Proposals   | Actual work  | Remarks   |
|----|--|---|--|---|
| 3a | Number of pits proposed for production   | 1   | 1  | The mining has been carried out in a single pit.                                |
| 3b | Quantity of ROM mineral production proposed  | 24,99,970 MT  | 14,99,447.67 MT  | Could not achieved due to present EC restriction (15 lakhs TPA)                 |
| 3c | Recovery of saleable/usable mineral from ROM production  | 100%  | 100%   |   |
| 3d | Quantity of mineral reject generation  | No proposal   | Nil  | --  |
| 3e | Grade of mineral reject generation and threshold value declared                                      | No proposal   | Nil  | --  |
| 3f | Quantity of sub-grade mineral generation   | No proposal   | Nil  | --  |
| 3g | Grade of sub-grade mineral generation  | No proposal   | Nil  | --  |
| 3h | Manual / Mechanised method adopted for segregating from ROM  | No such proposal approved for 2023-24   | Segregation is not being practiced.  |   |
| 3i | Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject          | No proposal approved.   | Nil  | --  |
| 3j | Provision of drilling & blasting in mineral benches  | 2nos drilling machine each of 115mm dia, Spacing-5m, Burden-3m, Bench height-9m, Hole depth-10m, Charging: stemming ratio-2:1, Staggered pattern drilling and blasting. | Deep hole drilling by deploying two nos DTH drilling machine of 115 mm dia, Spacing-4 to 5m, Burden-2.5m to 3m, Bench height-9m, Hole depth-10m, charging: stemming ratio-2:1, Staggered pattern drilling and blasting, NONEL is used for bottom initiation. |   |
| 3k | Provision of mining machineries in mineral benches   | Mechanised mining with the combination of deep hole drilling and blasting, also by deploying Hydraulic Excavator of 2.6m <sup>3</sup> with dumpers of 25 MT.            | Hydraulic Excavator of 2.6m <sup>3</sup> with dumper of 25 MT  |   |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Suitable.   | Boom height of excavator is suitable for the bench height.   |   |
| 3m | Total area covered under excavation/ pits  | 31.64 Ha.   | 30.425 Ha.   |   |
| 3n | Ore to OB ratio for the pit/mine during the year   | 1: 0.09   | 1: 0.023   |   |
| 3o | Total area put in use under different heads at the end of year                                       | 47.36 Ha.   | 45.087 Ha.   |   |
| 3p | Production of ROM mineral during last five-year period, as applicable                                | 2019-20: 25,04,760 MT<br>2020-21: 24,95,816 MT<br>2021-22: 24,99,800 MT<br>2022-23: 24,98,500 MT<br>2023-24: 24,99,970 MT   | 2019-20: 8,99,772.42 MT<br>2020-21: 8,99,103.10 MT<br>2021-22: 8,99,933.80 MT<br>2022-23: 14,98,194.80 MT<br>2023-24: 14,99,447.67 MT  | Proposed production could not achieved due to present EC restriction (15 lakhs) |



| SN | Item   | Proposals  | Actual work | Remarks |
|----|--|--|-------------|---------|
|    |  |  |             | TPA)    |
| 3q | General remarks of inspecting officer on method of mining etc. | The mine is being operated by open cast mechanised method by adopting deephole drilling and blasting in combination with deployment of excavators and tippers. |             |         |

#### **4.0 SOLID WASTE MANAGEMENT-DUMPING**

| SN | Item   | Proposals  | Actual work  | Remarks         |
|----|--|--|--|-----------------|
| 4a | Separate dumping of topsoil, OB & mineral reject (Rule 32, 33) | Proposal for separate dumping of OB.   | Separate dumping of OB carried out.  | As per proposal |
| 4b | Location of topsoil, OB & mineral reject dumps                 | N2784388- N2784442<br>E436160-E436214  | OB dumping done within the proposed location   |                 |
| 4c | Number of dumps within lease area and outside lease area       | Five   | Five   |                 |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16)          | Outside the UPL  | Outside the UPL  |                 |
| 4e | Number of active & alive dumps                                 | 5  | 5  |                 |
| 4f | Number of dead dumps   | Nil  | Nil  |                 |
| 4g | Number of dumps stabilised                                     | Nil  | Not applicable   |                 |
| 4h | Whether Retaining wall or garland drain all along dumps        | Yes  | Yes  |                 |
| 4i | Length of Retaining wall or garland drain all along dump       | No Proposal during 2023-24.  | As on date of inspection a total 800m length retaining wall and 860m garland drain has already been constructed. |                 |
| 4j | Number of settling ponds                                       | No Proposal during 2023-24.  | As on date of inspection there are a total of two check dams and one siltation pond.                             |                 |
| 4k | Specific comments of inspecting officer                        | Terracing of waste dump has been done. Retaining wall, check dam and garland drain constructed to prevent wash off. Waste dump SD-2 has been shifted as the area where dumping was done is now under mining. |  |                 |

#### **5.0 SOLID WASTE MANAGEMENT-BACKFILLING**

| SN | Item   | Proposals   | Actual work   | Remarks |
|----|--|---|---|---------|
| 5a | Status on part or full extraction of mineral from mined out area before starting backfilling | No such proposal approved.  | Mineral is yet to exhaust. No part of the lease is matured to start backfilling.    |         |
| 5b | Area under backfilling of mined out area   | No such proposal approved.  | Nil   |         |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)      | No such proposal approved.  | OB Soil is being dumped and only top soil is being used for green belt development. |         |
| 5d | Total area fully reclaimed & rehabilitated   | No such proposal approved.  | Nil   |         |
| 5e | General remarks of inspecting officer on backfilling, reclamation etc                        | The mine was opened on 21.09.2017. Mineral is yet to exhaust. No part of the mining lease is matured to start backfilling, reclamation. |   |         |

## 6.0 PROGRESSIVE MINE CLOSURE PLAN

| SN | Item  | Proposals   | Actual work  | 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 rule 26(2) Annual PMCP report to be submitted before 1 <sup>st</sup> day of July of every year     | Submitted through AR-2023-24 and also through email on 25.06.2024.   |  |
| 6b | Management of worked/mined out benches<br>i) Area available for rehabilitation (ha)<br>ii) Afforestation done (ha)<br>iii) No. of saplings planted during the year<br>iv) Cumulative no. of plants<br>v) Any other specific method of rehabilitation<br>vi) Cost incurred on watch & care during the year | No such proposal approved.<br>i) NA<br>ii) NA<br>iii) NA<br>iv) NA<br>v) Nil<br>vi) NA                    | i) NA<br>ii) NA<br>iii) NA<br>iv) NA<br>v) Nil<br>vi) NA   | Mineral yet to exhaust and the mining activity is in dynamic stage. Hence, no proposal of reclamation and rehabilitation of mined out benches by back filling and other means envisaged. |
| 6c | Compliance on reclamation and rehabilitation by backfilling<br>i) Voids available for backfilling (LxBxD)<br>ii) Void filled by waste/tailings<br>iii) Afforestation on the backfilled area<br>iv) Rehabilitation by making water reservoir<br>v) Any other specific means                                | No such proposal approved.<br>i) NA<br>ii) Nil<br>iii) NA<br>iv) NA<br>v) Nil                             | i) NA<br>ii) Nil<br>iii) NA<br>iv) NA<br>v) Nil  | -do-   |
| 6d | Compliance of Rehabilitation of waste land within lease<br>i) Afforestation<br>ii) Area rehabilitated (ha)<br>iii) Method of rehabilitation   | No such proposal approved.  | There is no waste land as the entire lease area is mineralised.<br>However against the proposal of 700 nos of sapling plantation within the 7.5m safety barrier, the lessee has completed plantation of 2000Nos in 0.26Ha.                   |  |
| 6e | Compliance of Environmental monitoring (core zone & buffer zone)  | Air, Noise and Water quality monitoring to be done within the mining lease area.                          | Monitoring has been carried out & all the parameters are within the prescribed limits. Ambient Air Quality and Noise level Monitoring is being done at 3 locations in Core Zone. Also Environmental monitoring is being done at buffer zone. | Monitoring is done.  |
| 6f | General remarks of inspecting officer on PMCP compliance & progressive  | Lessee is doing regular environmental monitoring, green belt development in the 7.5m safety barrier zone. |  |  |

## 7.0 MINERAL CONSERVATION

| SN | Item   | Proposals   | Actual work  | Remarks                       |
|----|--|---|--|-------------------------------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area   | No proposal of grade-wise sorting approved and the entire produced ROM to be directly despatched. | 14,99,447.67tonnes Produced ROM is directly despatched to the plant from the mine. |                               |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical | No such proposal approved.  | No sorting done.   | Entire ROM is of Cement Grade |
| 7c | Different grade of mineral sorted out at                       | No such proposal  | Limestone (ROM) is   |                               |



|    |  |  |                  |  |
|----|--|--|------------------|--|
|    | mines  | approved.  | of Cement Grade. |  |
| 7d | Any beneficiation process at mines   | No such proposal approved as entire Limestone is feedable in the Cement Plant.   | Nil              |  |
| 7e | General remarks of inspecting officer on Mineral conservation & beneficiation issues | The Lessee has reported 100% recovery. Also Lessee is rehandling a OB dump (WD-1) and recovering mineral @ 85% of the total rehandling quantity. Lessee has reported no generation of sub grade or mineral reject. |                  |  |

### **8.0 ENVIRONMENT**

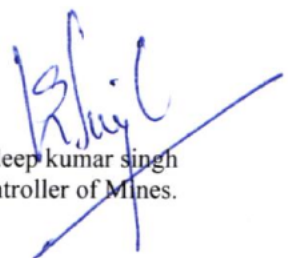
| SN | Item  | Proposals   | Actual work  | Remarks   |
|----|---|---|--|---|
| 8a | Separate removal and utilization of topsoil (Rule 32)   | To be removed separately.   | Nil during 2023-24   |   |
| 8b | Concurrent use or storage of topsoil  | Topsoil to be used for plantation and additional quantity to be stored.   | No top soil generated.   |   |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33)                                      | Separate dumps for overburden.  | There are in total Five OB dumps.  |   |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use           | No such proposal approved.  | Nil as no part of the lease area is matured to start backfilling.  |   |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No such proposal approved.  | Nil  | A total 800 m length Retaining wall and 860 m Garland drain have been constructed along part of waste dump. |
| 8f | Baseline information on existence of plantation & additional plantation done (Rule 41)                      | Within lease- 700 Nos.  | Within lease- 2000 Nos.  | A total of 22350 nos. of saplings planted in the 7.5m safety barrier zone of the mine as on 31.03.2024.     |
| 8g | Survival rate   | No proposals  | About 80% as reported by lessee.   |   |
| 8h | Water sprinkling on roads to control airborne dust  | Water Sprinkling on Haul roads  | Water sprinkling by water tanker over haul roads is being carried out regularly. Fixed type of sprinkler has been installed all along the haul road. |   |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines are                           | Lessee is doing plantation in and around the mines to improve the aesthetic beauty of Mines and surrounding areas. Lessee has established 3 nos (three) Continuous Ambient Air Quality Monitoring Stations (CAAQMS) within the mining lease area. |  |   |

**9.0 COMPLIANCE OF RULE 45**

| SN | Item  | COMMENTS   | Remarks  |         |
|----|---|--|--|---------|
|    | Status of submission of Monthly and Annual returns  | Monthly Return submitted upto – Jan '25<br>Annual Return submitted for FY 2023-24  |  |         |
| SN | Item  | Details GIVEN in A.R.  | Observation of I/Officer   | Remarks |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager           | <b>ShriSatyajitPalia</b><br>(Mines Manager)<br><b>ShriSatyajitPalia</b><br>(Mining Engineer)<br><b>HijamRakesh Singh</b><br>(Geologist)  | <b>ShriSatyajitPalia</b><br>(Mines Manager)<br><b>ShriSatyajitPalia</b><br>(Mining Engineer)<br><b>HijamRakesh Singh</b><br>(Geologist)            |         |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Mining Pit: 30.425 Ha<br>OB Dump: 9.70 Ha  | Mining Pit: 30.425 Ha<br>OB Dump: 9.70 Ha  |         |
| 9d | Scrutiny of Annual return on afforestation  | Saplings Plantation Within lease: 2000 Nos.<br>Outside ML: 470 Nos   | Saplings Plantation Within lease: 2000 Nos.<br>Outside ML: 470 Nos   |         |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade & quantity)                     | Nil  | No mineral reject generated during 2023-24.  |         |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore                                      | Opening Stock: Nil<br>Production: 14,99,447.67 MT<br>Dispatch: 14,99,447.67 MT<br>Closing Stock: Nil   | Opening Stock: Nil<br>Production: 14,99,447.67 MT<br>Dispatch: 14,99,447.67 MT<br>Closing Stock: Nil<br>There is no separate stock for graded ore. |         |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price & production cost                     | Ex. Mine Price: Rs 254.56/Tonne  | Ex. Mine Price: Rs 254.56/Tonne  |         |
| 9i | Scrutiny of Annual return on fixed assets   | Rs 49,76,51,267/-  | Details belong to five mines of the Lessee.  |         |
| 9k | Scrutiny of Annual return on mining machineries   | 1) Back Hoe-2.6m <sup>3</sup> : 4<br>2) Dumper-25 tonners: 17<br>3) Dozer-165 HP: 1<br>4) Drill Machine-115mm: 2 with Air Compressor-2<br>5) Explosive Van-7.5Tonnes: 1<br>6) Water Tanker-10KL: 1 | Found OK   |         |

10 - Details of violations observed during current inspection and compliance position of earlier violation pointed out:- earlier Violation were issued-under Rule 34A(1) and 34A (3) of MCDR-2017 and Rule 11(1) of MCDR-2017-has been compiled by the Lessee.no violation raised in last inspection.This is check up inspection.one JMG accompanied for inition.

6/2/25.

  
Sandeep kumar singh  
Regional controller of Mines.