

**MCDR INSPECTION REPORT**

Mine file No : TECGEN-MISCN /2023-GUH-IBM.RO-GUH

Mine Code : 38MEG03006

Date of Inspection: : 30.10.2024

Name of Inspecting Officer: Subrata Kumar Muduli-Senior Mining Geologist

**1.0 GENERAL**

SN	Particulars	Details
1	Name of the Mine	KHUB-II LIMESTONE MINE
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	4.70 ha. (Total Lease Area) Nil.(Forest) 4.70 ha.(Non-Forest)
3	Mine Code	38MEG03006
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 Village/P.O./P.S. – Lumshnong 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	14.01.2006
15	Date of Execution	02.06.2006
16	Date of opening of Mine	24.01.2007
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	SH. PANKAJ KEJRIWAL Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, <a href="mailto:pankajkejriwal@hotmail.com">pankajkejriwal@hotmail.com</a> Date of appointment: 11.11.2020
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	SH. D. V. RAMANAYYA Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, Mobile No. 94901-88024 <a href="mailto:dvramanayya@starcement.co.in">dvramanayya@starcement.co.in</a> Date of appointment: 11.01.2018
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	SH. D. V. RAMANAYYA Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, Mobile No. 94901-88024 <a href="mailto:dvramanayya@starcement.co.in">dvramanayya@starcement.co.in</a> Date of appointment: 11.01.2018
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	SH. ANKUR RATHORE Qualification: B.E in Mining Engineering Experience: 9 years

SN	Particulars	Details
		Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, Mobile No. 73401-56429 <a href="mailto:ankurrathore@starcement.co.in">ankurrathore@starcement.co.in</a> Date of appointment: 19.11.2021
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes <b>Geologist:</b> Padam Prasad Sharma Date of appointment: 28.09.2023 Qualification : M. Sc. (Geology)
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> Letter No.314(3)/2010-MCCM(CZ)/MP-13, dated 06.10.2005  <b>Modification of Approved Mining Plan:</b> Period: 2018-19 to 2019-20 Letter No. IBM/GHY/MEG/EJNH/LST/87, dated 04.09.2018
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> Period: 2020-21 to 2024-25 Letter No. IBM/GHY/MEG/EJNH/LST/ROMP-87, dated 28.11.2019
27	Mineral(s) granted in lease and proved for mining	Limestone and Sandstone
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	No such proposal approved for 2023-24.	113.50m	One Borehole (SCL/4.70H a/DOM/BH-01) – 113.5 m has been drilled by Star Cement Limited during 2023-24.
1b	Exploration over lease area for Geological axis 1 or 2.	No such proposal approved for 2023-24.	G1	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No such proposal approved for 2023-24.	Star Cement Limited, Rs 2.84 Lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No such proposal approved for 2023-24.	Nil.	As per the approved Mining Plan entire ML area has been explored under G1 level by

				8Nos of BHs for a total drilling meterage of 418.05 m. 1 BH of 113.50 m in FY 2023-24
1e	Balance reserves as on 31.03.2023	3,56,655.62 MT	3,76,901 MT	
1f	General remarks of inspecting officer on geology, exploration etc.	Average exploratory drill depth: 59.06m. (9 Nos. BH). Lakadong Sandstone has been exposed at bottom two benches 482 mRL & 476 mRL. The working of common boundary of Khub-II (4.70 Ha) and Lumshnong Limestone Mine (66.98 Ha), will facilitate to mine out some portion of the resources blocked under benches and blocked in 7.5m safety zone to the tune of 1903736 tonnes. RMP is under process which include proposal for working of common boundary of Khub-II (4.70 Ha) and Lumshnong Limestone Mine (66.98 Ha).		

## 2.0 DEVELOPMENT

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	No proposal for development.	No development has been done. Only production of mineral has been done.	Actual Mineral Production area E-436667 to 436797,N 2783528-2783696.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Separate benches in Mineral.	Separate benches developed in Mineral.	
2c	Stripping ratio or ore to OB ratio	1 : 0.0	1 : 0.0	No waste generation during 2023-24
2d	Quantity of topsoil generation in m <sup>3</sup>	No such proposal approved for 2023-24.	Nil	
2e	Quantity of overburden generation in m <sup>3</sup>	Nil	Nil	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	There is only one number of mining pit of dimension – 290 m X 200m X (Varying in between 15 to 70m). No sandstone has been mined during 2023-24. Bench Height: 6m, width: 6m and at places bench height is more than 6m as a result of merging of two nos of benches in past. RMP is under process which include proposal for working of common boundary of Khub-II(4.70 Ha) and Lumshnong Limestone Mine (66.98 Ha).		

## 3.0 EXPLOITATION

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	one	one	The mining has been carried out in a single pit
3b	Quantity of ROM mineral production proposed	49,565.75 MT	29,893.24 MT	
3c	Recovery of saleable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	No such proposal approved for 2023-24.	Nil	
3e	Grade of mineral reject generation and threshold value declared	NA, CaO%>34%,MgO %<5%.	Nil	
3f	Quantity of sub-grade mineral generation	No such proposal approved for 2023-24.	Nil	
3g	Grade of sub-grade mineral generation	No such proposal approved for 2023-24.	Nil	
3h	Manual / Mechanised method adopted	No such proposal	No segregation	

	for segregating from ROM	approved for 2023-24.	practice has been adopted for separation of mineral from ROM.	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No such proposal approved for 2023-24.	Nil	
3j	Provision of drilling & blasting in mineral benches	Deep hole DTH drilling machine of 115 mm dia Drilling & Blasting carried out in general shift, Burden:3m *Spacing 4m Type of drilling: Staggered, Type of explosive: Sequence, Mode of Initiation: NONAL, Electronic , Sequence of Initiation: "V" pattern.  Blast hole depth: 6.6 m	Deep hole DTH drilling machine of 115 mm dia tonne Drilling & Blasting carried out in general shift, Burden:3m *Spacing 4m Type of drilling : Staggered, Type of explosive: ANFO, Sequence, Mode of Initiation: NONAL, Electronic , Sequence of Initiation: "V" pattern  Blast hole depth: 6.6 m	
3k	Provision of mining machineries in mineral benches	Hydraulic Exc. 2.6m <sup>3</sup> : 2 nos Dumper 25 MT: 5 nos Drilling Machine: 115 mm	Hydraulic Exc. 2.6m <sup>3</sup> : 2 nos Dumper 25 MT: 5 nos Drilling Machine: 115 mm	
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	4.62 ha	4.62 ha	
3n	Ore to OB ratio for the pit/mine during the year	1: 0.0	1: 0.0	
3o	Total area put in use under different heads at the end of year	4.62 ha	4.62 ha	
3p	Production of ROM mineral during last five-year period, as applicable	<b>Limestone</b> 2018-19: 2,08,102.20 MT 2019-20: 1,88,083.05 MT 2020-21: 1,68,588.75 MT 2021-22: 1,61,688.38 MT 2022-23: 1,01,689.00 MT 2023-24: 49,565.75 MT  <b>Sandstone</b> 2018-19: 1,01,061.00 MT 2019-20: 1,09,637.64 MT 2020-21: No proposal 2021-22: No proposal 2022-23: No proposal 2023-24: No proposal	<b>Limestone</b> 2018-19: 2,07,154.69 MT 2019-20: 1,87,894.68 MT 2020-21: 1,68,185.21 MT 2021-22: 1,61,658.87 MT 2022-23: 1,01,549.00 MT 2023-24: 29,893.24 MT  <b>Sandstone</b> 2018-19: 21,696.02 MT 2019-20: 94,059.89 MT 2020-21: Nil 2021-22: Nil 2022-23: Nil 2023-24: Nil	
3q	General remarks of inspecting officer on method of mining etc.	The mine is being operated by open cast mechanised method by adopting deep hole 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)	No such proposal approved for 2023-24.	Nil	Sandstone is granted as an associated mineral.
4b	Location of topsoil, OB & mineral reject dumps	No such proposal approved for 2023-24.	Nil	-do-
4c	Number of dumps within lease area and outside lease area	No waste dumping proposal approved.	Nil	-do-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No waste dumping proposal approved.	Nil	-do-
4e	Number of active & alive dumps	No waste dumping proposal approved.	Nil	-do-
4f	Number of dead dumps	No waste dumping proposal approved.	Nil	-do-
4g	Number of dumps stabilised	No waste dump stabilisation proposal approved.	Nil	-do-
4h	Whether Retaining wall or garland drain all along dumps	Not applicable	Nil	
4i	Length of Retaining wall or garland drain all along dump	Not applicable	Nil	
4j	Number of settling ponds	Not applicable	Nil	
4k	Specific comments of inspecting officer	Sandstone is granted as an associated mineral and the generated quantity is being utilised for captive purpose. Hence there is no waste generation and dumping of waste and also does not require any management.		

**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 for 2023-24.	Mineral is yet to be mined out.	The mine is not mature till date for starting back filling. So there was no proposal for back filling in 2023-24.
5b	Area under backfilling of mined out area	No such proposal approved for 2023-24.	Nil	No part of the mining lease is matured enough to start backfilling as Mineral is yet to be mined out.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Mining has gone deeper and as of now there is no top soil within the ML except safety barrier area hence no such proposal approved for 2023-24.	Nil	-do-
5d	Total area fully reclaimed & rehabilitated	No such proposal approved for 2023-24.	Nil	-do-
5e	General remarks of inspecting officer on backfilling, reclamation etc	Mineral is yet to exhaust. No part of the mining lease is matured enough to start backfilling, reclamation. RMP is under process which include proposal for working of common boundary of Khub-II (4.70 Ha) and Lumshnong Limestone Mine (66.98 Ha).		



**6.0 PROGRESSIVE MINE CLOSURE PLAN**

S N	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 on 24.06.2024 along with Annual Returns	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	No such proposal approved. i) NA ii) NA iii) NA iv) NA v) NA vi) NA	i) Nil ii) Nil iii) Nil iv) Nil v) Nil vi) Nil	
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	No such proposal approved. i) NA ii) NA iii) NA iv) NA v) NA	i) Nil ii) Nil iii) Nil iv) Nil v) Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	No such proposal approved as the entire ML area is mineralised. However in there is approved proposal in respect of afforestation in 7.5m safety barrier area i) 7.5mtrs safety barrier area ii) 0.016 ha iii) 50 nos	No waste land, hence no plantation in waste land. However details of plantation in 7.5m safety barrier area is as follows i) 7.5 mtrs safety barrier area ii) 0.016 ha iii) 100 nos	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Air, Noise and Water quality monitoring to be done during the year within the lease area	Monitoring has been carried out and all the parameters are within the prescribed limits.	
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.		

**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 will be despatched from mine head.	29893.240 tonnes 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 for 2023-24.	No sorting done during 2023-24.	Entire ROM produced is of Cement

				Grade.
7c	Different grade of mineral sorted out at mines	No such proposal approved for 2023-24.	Not applicable	
7d	Any beneficiation process at mines	No such proposal approved as entire Limestone is above the cut off.	Nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The Lessee has reported 100% recovery. 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)	No such proposal approved as the mining has gone deeper and there is no topsoil exist except Safety barrier zone.	Not applicable	
8b	Concurrent use or storage of topsoil	Not applicable	Not applicable	.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No such proposal approved as there is no overburden, waste rock, rejects.	Nil	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal approved for 2023-24.	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal approved for 2023-24.	Nil	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Within lease- 50 Nos.	Within lease- 100 Nos. Cumulative: 1315 no's	Plantation has been carried out in the Safety zone
8g	Survival rate	No such proposal approved for 2023-24.	80.00%	
8h	Water sprinkling on roads to control airborne dust	Water Sprinkling on Haul roads was proposed.	Water sprinkling by water tanker over haul roads has been carried out.	
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.		

### 9.0 COMPLIANCE OF RULE 45

SN	Item	COMMENTS		Remarks
	Status of submission of Monthly and Annual returns	Monthly Return submitted upto Sep 2024 Annual Return for for FY 2023-24 submitted on 24.06.2024		
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>Mining Engineer:</b> Sh. Ankur Rathore <b>Geologist:</b> Sh. Padam P Sharma <b>Manager:</b> Sh. D. V. Ramanayya	Same	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land use pattern : 4.62 ha	4.62 Ha under mining pit	



9d	Scrutiny of Annual return on afforestation	100 nos. Sapling planted in 7.5mtrs safety barrier area within the ML.	100 nos. Of Sapling Plantation carried out in 7.5mtrs safety barrier area within the ML.	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil	No mineral reject has been generated during 2023-24.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	OS-Nil Production: 29,893.24 tonnes, Despatch from Mine head- 29,893.24 tonnes CS-Nil	OS-Nil Production: 29,893.24 tonnes, Despatch from Mine head-29,893.24 tonnes CS-Nil (Details mentioned as per production-despatch-stock register)	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-mine price: Rs 258.56	Rs 258.56	
9i	Scrutiny of Annual return on fixed assets	Rs: 497651267/-	Details belongs to five mines of the Lessee.	
9k	Scrutiny of Annual return on mining machineries	1)BACK HOE : 2.600 CUM-2 2)Dumper : 25 tonners-5 3) Dozer-266 HP-1 4) Drill Machine-115mm-1 with Air Compressor(600CUM/Min)-1 5) Water Tanker-10KL-1	Found OK.	

10 - Details of violations observed during current inspection and compliance position of earlier violation pointed out:-  
Violation issued on 12.02.2024 for rule 34A (2),48(1) of MCDR-2017 has been complied.

Subrata Kumar Muduli  
Senior Mining Geologist  
Name of Inspecting Officer/Designation