

MCDR INSPECTION REPORT

Mine file No : MCDR-MiFL0LST/4/2022-GUH-IBM_RO_GUH

Mine Code : 38MEG03003

Date of Inspection : 26.12.2023

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

1.0 GENERAL

SN	Particulars	Details
1	Name of the Mine	KHUB-I LIMESTONE MINE
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	4.96 ha. (Total Lease Area) Nil.(Forest) 4.96 ha.(Non-Forest)
3	Mine Code	38MEG03003
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	20.12.2004
15	Date of Execution	17.01.2005
16	Date of opening of Mine	24.01.2005
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, pankajkejriwal@hotmail.com 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 dvramanayya@starcement.co.in 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 dvramanayya@starcement.co.in 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. Rajeew Ranjan Qualification: B.E in Mining Engineering Experience: 9 years Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, Mobile No. 73401-56429 rranjan16@gmail.com Date of appointment: 01.10.2021
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes Geologist: Hijam Rakesh Singh Date of appointment: 19.02.2022

SN	Particulars	Details
		Qualification : M. Sc. (Earth Science)
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Mining Plan: Letter No.314(3)/2010-MCCM(CZ)/MP-37, dated 12.10.2004 Modification of Approved Mining Plan: Period: 2018-19 to 2019-20 Letter No. IBM/GHY/MEG/EJNH/LST/86, 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.	Review of Mining Plan: Period: 2020-21 to 2024-25 Letter No. IBM/GHY/MEG/EJNH/LST/ROMP-86, dated 28.11.2019
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. –

1.0 EXPLORATION

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such proposal approved for 2022-23	Nil	One Borehole (SCL/4.96/D OM/BH-01) – 142.5 m has been drilled by Star Cement Limited during 2023-24 against violation dated 29.09.2022 in respect of rule 12(4) of MCDR-2017.
1b	Exploration over lease area for Geological axis 1 or 2.	No such proposal approved.	Nil during 2022-23	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No such proposal approved	Nil during 2022-23	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No such proposal approved for 2022-23	Nil	As per the approved RMP entire ML area has been explored under G1 level by 8 BH, 343.35m.
1e	Balance reserves as on 01.04.2023	4,93,958 MT	4,94,204 MT	
1f	General remarks of inspecting officer on geology, exploration etc.	Average depth of exploration: 43.17 m (8 Nos. BH). Violation under rule 12(4) of MCDR-2017 is under compliance stage.		

2.0 DEVELOPMENT

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Easting 436492 - 436534 Northing 2783362 - 2783422	Easting 436492 - 436534 Northing 2783362 - 2783422	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Separate benches in Limestone.	Separate benches developed in Limestone.	
2c	Stripping ratio or ore to OB ratio	1 : 0.0	1 : 0.0	

2d	Quantity of topsoil generation in m ³	No such proposal approved for 2022-23.	Nil	
2e	Quantity of overburden generation in m ³	Nil	Nil	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	There is only one no of mining pit of dimension – 350 m X 250m X (Varying in between 20 to 90m). No sandstone has been mined during 2022-23. Bench Height: 6m, width: 6m and at places bench height is more than 6m as a result of merging of two nos of benches earlier.		

3.0 EXPLOITATION

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	64,165.50 tonnes	64,087.72 tonnes	
3c	Recovery of saleable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	No such proposal approved for 2022-23.	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 2022-23.	Nil	--
3g	Grade of sub-grade mineral generation	No such proposal approved for 2022-23.	Nil	--
3h	Manual / Mechanised method adopted for segregating from ROM	No such proposal approved for 2022-23.	No segregation 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 2022-23.	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: ANFO Mode of Initiation: NONAL, Electronic, Sequence of Initiation: "V" pattern Blast hole depth: 6.6m	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: ANFO, Mode of Initiation: NONAL, Electronic, Sequence of Initiation: "V" pattern Blast hole depth: 6.6m	-
3k	Provision of mining machineries in mineral benches	Hydraulic Excavator 2.6m ³ : 1 nos. dumper of 25 MT: 5 nos Drilling Machine: 115mm	Hydraulic Excavator 2.6m ³ : 1 nos. dumper of 25 MT: 5 nos Drilling Machine: 115mm	-
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	4.34 ha	4.34 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	4.34 ha.	4.34 ha.	
3p	Production of ROM mineral during last five-year period, as applicable	Limestone 2018-19: 2,48,098.20 MT 2019-20: 1,78,090.50 MT 2020-21: 1,05,993.88 MT 2021-22: 1,30,286.88 MT 2022-23: 64,165.50 MT Sandstone 2018-19: 92,762.35 MT 2019-20: No proposal 2020-21: No proposal 2021-22: No proposal 2022-23: No proposal	Limestone 2018-19: 2,47,177.17 MT 2019-20: 1,77,980.31 MT 2020-21: 1,05,849.84 MT 2021-22: 1,30,263.91 MT 2022-23: 64,087.72 MT Sandstone 2018-19: 78,499.59 MT 2019-20: Nil 2020-21: Nil 2021-22: Nil 2022-23: 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.
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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 2022-23.	Nil	Sandstone is granted as an associated mineral. Hence there is no waste generation.
4b	Location of topsoil, OB & mineral reject dumps	No such proposal approved for 2022-23.	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	NA	Nil	
4i	Length of Retaining wall or garland drain all along dump	NA	Nil	
4j	Number of settling ponds	NA	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 2022-23.	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 2022-23.
5b	Area under backfilling of mined out area	No such proposal approved for 2022-23.	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 2022-23.	Nil	-do-
5d	Total area fully reclaimed & rehabilitated	No such proposal approved for 2022-23.	Nil	-do-

SN	Item	Proposals	Actual work	Remarks
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.		

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 st day of July of every year	Submitted on 29.06.2023 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) 0.122 ha iii) 150 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) 0.122 ha iii) 210 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.	64087.72 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 2022-23.	No sorting done during 2022-23.	Entire ROM produced is of Cement Grade.
7c	Different grade of mineral sorted out at mines	No such proposal approved for 2022-23.	Not applicable	
7d	Any beneficiation process at mines	No such proposal approved as entire Limestone is above the cut	Nil	

		off.		
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 2022-23.	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal approved for 2022-23.	Nil	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Within lease- 150 Nos.	Within lease- 210 Nos. Cumulative: 1461 no's	Plantation was carried out in the Safety zone
8g	Survival rate	No such proposal approved for 2022-23.	60.00%	
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 up to – Nov 2022 Annual Return yet to be submitted for FY 2022-23		
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	Mining Engineer: Sh Rajeev Ranjan Geologist : Sh Hijam Rakesh Singh Manager :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 : 4.34 ha	4.34 Ha under mining pit	
9d	Scrutiny of Annual return on afforestation	210 nos. Sapling planted in 7.5mtrs safety barrier area within the ML.	210 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	Nil	

			register)	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Rs 296.90	Rs 296.90	
9i	Scrutiny of Annual return on fixed assets	Rs : 494322002.00	Details belongs to five mines of the Lessee.	
9k	Scrutiny of Annual return on mining machineries	1)BACK HOE : 2.600 CUM-1 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 6) Explosive Van-7.5Tonnes-1	Found OK.	

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

Violation issued under rule 34A (2) of MCDR-2017 on 12.02.2024 for non submission of the soft copy of high resolution Geo-referenced Ortho-rectified Multispectral satellite images of the leased area and upto hundred metres outside the lease boundary, for the year 2022-23. Earlier violation issued under rule 11(1), 12(4) of MCDR-2017 is under Compliance Stage.

Subrata Kumar Muduli
14/03/2024
Subrata Kumar Muduli
Senior Mining Geologist
Name of Inspecting Officer/Designation