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**MCDR INSPECTION REPORT**

Mine file No : MCDR-MiFLOLST/11/2023-GUH-IBM\_RO\_GUH

Mine Code : 38MEG03017

Date of Inspection: : 18.11.2023

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

**1.0 GENERAL**

SN	Particulars	Details
1	Name of the Mine	WAH- PYNKON LIMESTONE MINE-II
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	13.58 Ha. (Total Lease Area) Nil. (Forest) 13.58 Ha. (Non-Forest)
3	Mine Code	38MEG03017
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	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	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. DINESH CHANDRA SINHA Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, Mobile No. 8974010167 <a href="mailto:dineshsinha@starcement.co.in">dineshsinha@starcement.co.in</a> Date of appointment: 21.09.2017
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	SH. NAREDLA PRAKASH Qualification: B.E in Mining Engineering Experience: 13 years

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SN	Particulars	Details
		Star Cement Limited, Village/P.O./P.S. – Lumshnong East Jaintia Hills Dist., Meghalaya, Mobile No. 6304497016, 7729819424 <a href="mailto:nani.prime@gmail.com">nani.prime@gmail.com</a> Date of appointment: 15.04.2019
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes (21.09.2017)
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. IBM/GHY/MEG/JNH/LST/MP-69, dated 11.05/2015  <b>Modification of Approved Mining Plan:</b> Period: 2018-19 to 2020-21 Letter No. IBM/GHY/MEG/JNH/LST/MP-69, dated 24.01.2019
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: 2021-22 to 2025-26 Letter No. IBM/GHY/MEG/JNH/LST/MP-69, dated 23.02.2021
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	No Proposal	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	No Proposal	Nil	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No Proposal	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposal	Nil	Entire ML area is explored under G1 level.
1e	Balance reserves as on 01.04.2023		Proved Mineral Reserve: (111): <b>4469892.00 tonnes</b>  Prefeasibility Mineral Resource: (221): <b>11207200.00 tonnes</b>  Resource : (331): <b>333625.00 tonnes</b>	
1f	General remarks of inspecting officer on geology, exploration etc.	No proposal for exploration in the year 2022-23. The deposit has been explored up to an average depth of 55mtrs. Entire ML area is covered by top limestone band known as Prang Limestone. Satellite Imagery has not been submitted and violation under rule 34A(2) of MCDR-2017 issued.		

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**2.0 DEVELOPMENT**

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	<b>Easting</b> 438369 , 438739 <b>Northing</b> 2783085 ,2783480	<b>Easting</b> <b>438300 ,438520</b> <b>Northing</b> 2783060, 2783220	Deviation in Lateral and Vertical extent found. Violation issued under rule 11(1) of MCDR-2017.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Benches to be developed only in Limestone.	Benches developed only in Limestone.	There is no OB and Top soil.
2c	Stripping ratio or ore to OB ratio	1: 0.0	1: 0.00	
2d	Quantity of topsoil generation in m <sup>3</sup>	Nil	Not applicable	
2e	Quantity of overburden generation in m <sup>3</sup>	Nil	Not applicable	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Near pillar no. 8/45 old pit exist in the area. 2022-23 Depth of Pit (Proposed at end of 2022-23) is 342mRL, but actual pit bottom level at end of in 2022-2023 is 361mRL. Proposed production (2022-23)–678100 tonnes. Mining Pit has not been developed as per the approved proposal Violation issued under rule 11(1) of MCDR-2017. Achieved production- 49096.07 tons.		

**3.0 EXPLOITATION**

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	01	01	The mining has been carried out in a single pit of pit size 1.472 Ha (active). One old pit of (0.47Ha) exists not working.
3b	Quantity of ROM mineral production proposed	678100.00Tons	49096.07Tons	Violation issued under rule 11(1) of MCDR-2017 issued.
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 proposal	Nil	-
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No proposal	Nil	--
3j	Provision of drilling & blasting in mineral benches	Deep hole DTH drilling machine of 115 mm dia Explosive van : 7.5 tonne Drilling & Blasting carried out in general shift,	Deep hole DTH drilling machine of 115 mm dia Explosive van:7.5 tonne Drilling & Blasting carried out in general shift,	

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		Burden:3m *Spacing 4m Type of drilling : Straggered, Type of explosive: ANFO charge:, Sequence, Mode of Initiation: NONAL, Electronic ,  Sequence of initiation: "V" pattern	Burden:3m *Spacing 4m Type of drilling : Straggered, Type of explosive: ANFO, Squence, Mode of Initiation: NONAL, Electronic ,  Sequence of initiation: "V" pattern	
3k	Provision of mining machineries in mineral benches	Hydraulic Excavator 2.6m <sup>3</sup> Rock Breaker Dumper of 29 MT & 23T Back Hoe: 2.6cum Dozer: 90 HP Water Tanker Yes Proposed	Hydraulic Excavator of 2.6m <sup>3</sup> -2nos Dumper of 25 MT – 6 Nos Back Hoe: 2.6 cum-1 Dozer: 90 HP-1No	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Excavator boom height can easily reach to the bench height of 6m.	
3m	Total area covered under excavation/ pits	4.54	1.942	
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	2.71	2.01	
3p	Production of ROM mineral during last five-year period, as applicable	2017-18: 41,647.50 MT 2018-19: 41,493.01 MT 2019-20: 6,47,073.84 Mt 2020-21: 6,78,123.58 MT 2021-22:: 6,78,105.00 MT 2022-23: 678100 MT	2017-18: 41,019.57MT 2018-19: 40,632.01 MT 2019-20: 49,141.64MT 2020-21: 49,085.83MT 2021-22: 49,245.53MT 2022-23 : 49,096.07MT	Violation issued under rule 11(1) of MCDR-2017 issued for continuous year wise short fall in achieving the production. During 2023-24: (up to 31.10.2023): Production achieved is 30614.72 tonnes.
3q	General remarks of inspecting officer on method of mining etc.	The mine is worked by forming benches. Mechanized mining is being done using deep hole drilling and blasting, shovel & tipper combination.		

**4.0 SOLID WASTE MANAGEMENT-DUMPING**

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	No Proposal	Nil	
4b	Location of topsoil, OB & mineral reject	No Proposal	Nil	

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SN	Item	Proposals	Actual work	Remarks
	dumps			
4c	Number of dumps within lease area and outside lease area	No Proposal	Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No Proposal	Nil	
4e	Number of active & alive dumps	No Proposal	Nil	
4f	Number of dead dumps	No Proposal	Nil	
4g	Number of dumps stabilised	No Proposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps	No Proposal	Nil	
4i	Length of Retaining wall or garland drain all along dump	No Proposal	Nil	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer	No waste generation. No waste disposal planned. Two nos of check dam having each dimension 25 m * 1m* 1.5m constructed. One settling pond exist : 10m * 6m *2m.		

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**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 proposal	Not applicable	The mine is not mature till date to start back filling.
5b	Area under backfilling of mined out area	No proposal	Nil	The mine was opened on 21.09.2017 and the mine is not mature till date for back filling. So there was no proposal for back filling in the RY 2022-23.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No proposal	Nil	-
5d	Total area fully reclaimed & rehabilitated	No proposal	Nil	The mine is not mature till date for reclamation and rehabilitation.
5e	General remarks of inspecting officer on backfilling, reclamation etc	The mine was opened on 21.09.2017 and the mine is not mature till date for back filling. So there was no proposal for back filling and reclamation in the RY:- 2022- 2023.		

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**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 on 28.06.2023 along with Annual Return for 2022-23	
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	i) NA ii) NA iii) NA iv) NA v) Nil vi) NA	i) NA ii) NA iii) NA iv) NA v) Nil vi) NA	The mine was opened on 21.09.2017 and no worked out benches were present for reclamation and rehabilitation. Hence no proposal was envisaged in the year 2022-23.
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	i) NA ii) Nil iii) NA iv) NA v) Nil	i) NA ii) Nil iii) NA iv) NA v) Nil	The mine was opened on 21.09.2017 and no worked out benches were present for reclamation and rehabilitation. Hence no proposal was envisaged in the year 2022-23.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) 7.5mtrs Barrier Area ii) 0.08ha iii) 160 Nos	i) 7.5 mtrs Barrier Area ii) 0.08ha iii) 250 Nos	In NE direction of old pit upto 105mtrs in 7.5m Safety Zone
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Air, Noise and Water quality monitoring to be done	Monitoring is carried out and all the parameters are within the limits.	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Two check dam & one settling pond constructed Envi-Monitoring. is being done & all the parameter are within permitted limits.		

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**7.0 MINERAL CONSERVATION**

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Produced ROM will be directly sent to the Crusher from the mine	Produced ROM is directly sent to the Crusher from the mine	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Not proposed	Not applicable	
7c	Different grade of mineral sorted out at mines	Not proposed	Not applicable	
7d	Any beneficiation process at mines	Not proposed	Not applicable	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	ROM is directly supplied to plant.		

**8.0 ENVIRONMENT**

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable	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)	Not applicable	Not applicable	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not applicable	No proposal was envisaged during the RY
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Not applicable	No proposal was envisaged during the RY
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	During 2022-23 it has been proposed to plant a total of 160 nos of saplings within Mining Lease. Outside Mining Lease (OML) - Nil	During 2022-23 a total of 250 nos sapling have been planted within the lease and cumulative 1170 Nos saplings planted since from opening of the mine and OML-Nil	
8g	Survival rate	No proposals	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.	Water tanker - 10KL- 1 Nos
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 – Oct, 2023 Annual Return submitted for FY 2022-23		
SN	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks

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9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Sh Naredla Prakesh Geologist : Sh Patel Suraj Singh (Part time ) Manager : Sh Naredla Prakesh	Same	As on DOI Mining Engineer- Sri D.C. Sinha  Geologist: Padam Prasad
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land use pattern :1.56 HA	2.031	One old pit of (0.47Ha) has not been added.
9d	Scrutiny of Annual return on afforestation	Plantation within 7.5mtrs safety barrier zone- 160 nos. sapling	250 nos.	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Production: 49,096.07 MT Pit head stock :Nil No Sale value	ROM.	Oversized Blasted boulder stock formed (2 Nos) at the time of inspection
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-mine price: 294.90		
9i	Scrutiny of Annual return on fixed assets	Rs: 494322002/-	Value is for combined with other four nos of mining leases	
9k	Scrutiny of Annual return on mining machineries	BACK HOE : 2.600 CUM TIPPER : 25 ton –6 Nos Altas Copco (AirROC) (Dia 115 ): 1 Rock breaker :1 Crawler mounted Bulldozer:1 Water sprinkler : 1	OK	

**10 - Details of violations observed during current inspection and compliance position of earlier violation pointed out:-** Violation issued under rule 11(1) of MCDR-2017 for not developing the mine as proposed in the approved review of mining plan document and under rule 34A(2) of MCDR-2017 for not submitting 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 FY 2022-23.

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