

**INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION**

MCDR inspection REPORT

Nagpur regional office

Mine file No : MP/NMC/LST-8/NGP

Mine code : 38MPR51001

- (i) Name of the Inspecting : **SQ32**) **SANDEEP KUMAR SINGH**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 21-JAN-21
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **VIKRAM CEMENT LIMESTONE M**
- (b) **Registration NO.** : **IBM/441/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : MADHYA PRADESH
District : NIMACH
Village : SUVAKHEDA, MOKA, MAHES
Taluka : JAWAD
Post office : KHOR
Pin Code : 458470
FAX No. : 07420-235524
E-mail : vcmail@adityabirla.com
Phone : 07420-230830
- (f) Police Station : JAWAD
- (g) First opening date : 29-DEC-07
- (h) Weekly day of rest : SUN
2. Address for : VIKRAM CEMENT WORKS
correspondance PO : KHOR, TAH : JAWAD
DISTRICT NEEMUCH (M.P.)
3. (a) Lease Number : MPR2209
- (b) Lease area : 342.61
- (c) Period of lease : 50
- (d) Date of Expiry : 27-JAN-52
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : M/S GRASIM INDUSTRIES LTD.
RAIPUR CHHATTISGARH
Phone:
FAX :

Owner : M/s Grasim Cement
M/s Grasim Cement B-1,
Golcha Appartment Shankar
Nagar, Raipur RAIPUR
CHHATTISGARH
Phone: 0771--424827, 4
FAX : 0771--425721

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	21-MAR-01
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	11-APR-11
	:	Mining Scheme rule 12 MCDR1988	24-JUN-15

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	nil	nil	
1b	Exploration over lease area for geological axis 1 or 2	no proposal	nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	no proposal	nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2		level of exploration achieved in area.	Exploration is carried out for entire ML area under the G1 level & G2 level.
1e	Balance reserve as on 01/04/20	--	65.53 Mio Tonnes	

1f	General remarks of inspecting officers on geology, exploration etc	no proposal for exploration in the year are made. The Limestone deposit of the applied area belongs to Nimbahera Limestone, equivalent to Rohtas stage of semri series of lower Vindhya. The colour of the Limestone of the area is mostly grey with various shades such as dark, light, greenish and some beds are pink as well as yellowish. Based on colour, physical and chemical properties, the five distinct types of Limestone beds have been identified in area.
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Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Development was proposed in Pit no-1, Pit no-2 & Pit no.-3.	Pit no-1, Pit no-2 & Pit no.-3.	For year 2019-20
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Topsoil and OB will be removed in advanced keep sufficient distance from working bench.	It is being done as per proposal in soil and waste, mineral	
2c	Stripping ratio or ore to OB ratio	1:0.38	1:0.44	For year 2019-20

2d	Quantity of topsoil generation in m3	33800	21195	
2e	Quantity of overburden generation in m3	2.08 MioT	1.47 MioT	For year 2019-20
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Due to less demand from plant.pit is well developed in 7-8 benches of approx .8mtr height.mine is captive. it has run upto 60 % of planned capacity due to less demand.stripping ratio and benches are maintained.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	3 nos	3 nos	
3b	Quantity of ROM mineral production proposed	5.50 Million Tone	3.34 Million Tone	Limestone Production For year 2019-20
3c	Recovery of sailable/usable mineral from ROM production	Yes	Done	
3d	Quantity of mineral reject generation	0.30 Million Tone	.115 Million Tone	Screen rejects due to screening of ROM
3e	Grade of mineral rejects generation and threshold value declared.	Lime less than 30%	Lime less than 30%	
3f	Quantity of sub grade mineral generation.	0.10 Million Tone	0.05 Million Tone	

3g	Grade of sub grade mineral generation	yes, above threshold	stacked, above 34% lime	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method screening	Screening of RoM for segregation of clay for upgrading the quality of limestone.	As proposed
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	
3j	Provision of drilling and blasting in mineral benches	Deep hole drilling & controlled blasting with large dia (115 mm) hole	Drilling of 115 mm hole dia & using slurry & ANFO in conjunction with NONEL delay detonators for blasting	
3k	Provision of mining machineries in mineral benches	Yes	Yes	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed bench height 5m - 8 m is suitable for OB & Limestone	5m -8m	
3m	Total area covered under excavation/pits	104.54 ha	62.757 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.38	1:0.44	
3o	Total area put in use under different heads at the end of year	142.56 ha	86.485 ha	

3p	Production of ROM mineral during the last five year period as applicable	2014-15	1.50	1.15 Mio. T	Due to less demand from plant. Mining has produced 60% of planned capacity.
				1.50 Mio. T	
		2015-16	3.17	1.87 Mio. T	
				3.25 Mio. T	
		2016-17	5.50	4.45 Mio. T	
				3.34 Mio. T	
		2017-18	5.50		
			Mio. T		
	2018-19	5.50			
			Mio. T		
	2019-20	5.50			
			Mio. T		

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes	Separate dumping for topsoil, OB is being done.	in previous years
4b	Location of topsoil, OB and mineral reject dumps	out side upl for waste and subgrade	out side upl for waste and subgrade	As per mine plan,temporaray store for topsoil and mineral.DUMPYARD made at north BP 5,6,7 and BP 70,69,67 as per proposal outside UPL.
4c	Number of dumps within lease area and outside of lease area	Within ML- 2nos	Within ML- 2nos	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	out side	located out side	made in past years of plan
4e	Number of active and alive dumps.	2 nos	2 nos	
4f	Number of dead dumps.	nil	nil	
4g	Number of dumps established.	-	-	2 dumps exist from last years.now backfilling is done

4h	Whether Retaining wall or garland drain all along dumps are there.	yes	Retaining wall& garland drains are made at periphery of OB dump	from last years.drain and bund is seen .
4i	Length of Retaining wall or garland drain all along dumps	-	400 m	
4k	Specific comments of inspecting officer on waste dump management			Plantation was done over dump area as per plan. toe drains and bund are maintained.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Area to be backfilled, where the limestone fully extracted.	After full extraction, Simultaneously backfilling is being done.	
5b	Area under backfilling of mined out area	5.78 ha	4.9 ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Topsoil storage & utilise plantation within ML area.	Topsoil is being storage & utilising for plantation within ML area.	Storage & use
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backfilling is done in mined out area.plantation has been on backfilled area.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	-	PMCP report was sending to RCOM (IBM), Regional Office, Jabalpur through email on dated 19-June-2020	
6b	Area available for rehabilitation (ha) .	--	--	No proposal for mined out benches.
6c	afforestation done (ha).	--	--	No proposal for mined out benches.
6d	No. of saplings planted during the year	Not Propoesd	Not Propoesd	No proposal for mined out benches.
6e	Cumulative no .of plants	Not Propoesd	Not Propoesd	No proposal for mined out benches.
6f	Any other method of rehabilitation	Not Propoesd	Not Propoesd	No proposal for mined out benches.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D		20 ha. (Pit-1- 380x305x39) (Pit-2- 230x200x13) (Pit-3- 240x140x14)	Production of mines is below the proposal due to less requirement from cement plant as this mine is captive mines. Due to this reason, less area is available for backfilling.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	5.78 ha.	4.9 ha.	Less Production/Development
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	1.95 ha	1.96 ha	

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	not proposed	Na	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	np	na	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	0.88 ha/2200 plants	1.0 hec/2100 plants	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	0.88 ha	1.0 ha	
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	NP	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	yes-	done	Air, water & Noise monitoring is being done regularly.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	lot of area is backfilled in mines. plantation is done on same progressively. back filling is done in year.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM	ROM	ROM is sent to Crushing/Screening
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	N/A	N/A	
7c	Different grade of mineral sorted out at mines.	N/A	N/A	
7d	Any beneficiation process at mines .	No, only crushing screening and crushing	No, only crushing screening and crushing	Screening before crushing
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			ROM is sent to crusher for screening. any low grade subgrade is stacked for future after segregation.

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Removed separately & utilised for plantation.	Topsoil is being removed separately for plantation purpose.	
8b	Concurrent use or storage of topsoil	Temporarily storage & use	temporarily utilising for storage & use for plantation purpose within ML area.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of OB dump.	seperate dumping for waste	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB to be disposed Partly in Surface OB dump and inside of pit for backfilling purpose.	Work is carrying as per proposal.	over the plan period.backfilling is done in review year.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Simultaneously backfilling of mined out area is in practice	Yes, done.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	10,000	Additional,10,000	Plantation is being done over OB Dump & slope of dump backfilled area/backfilled and along the lease boundary.
8g	Survival rate	80%	75%	
8h	Water sprinkling on roads to control airborne dust	Sprayed the water on mine road during every shift working.	Water is being sprayed through water tanker on mine road in each shift working.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Covered belt conveyor. Good garden developed and plantation done on dump, and Backfilled area and mines periphery.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly returns up to Dec-2020 Annual returns up to 2019-20	Yes	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer in charge Shri M. Senthil 9. Geologist in charge Shri Sanjay Sharma	Appointed full time Mining Engineer, & Geologist.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Surface area utilisation 86.485 ha.	Yes, Surface area utilisation within limit.	
9d	Scrutiny of Annual return on afforestation	10,085 nos.	lot of trees are seen planed in preiphery of mines and backfilled area./dumps	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	reject :114806 Tonsn,grade Cao lees than 30%.		screen reject.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	nil	no stocks maintained	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex. Mine price-188.25 Rs/tons Production cost- 188.25 Rs/tons including mining & overhead cost all taxes.	No sale value due captive consumption	Captive use.
9h	Scrutiny of Annual return on fixed assets	Rs/- 313807325 (Including three mining lease)	Include land, building machineries etc.	

9k	Scrutiny of Annual return on mining machineries	TYPE OF MACHINERY CAPACITY SHOVEL (HYDRAULIC) 4.000 CUM SHOVEL (HYDRAULIC) 6.500 CUM DUMPER 35 CUM DUMPER 40 TONNE DUMPER 55 TONNE DOZER 305 TONNE BLAST HOST DRILL 115 MM WATER TANKER 20000 LITRE	TYPE OF MACHINERY CAPACITY SHOVEL (HYDRAULIC) 1 SHOVEL (HYDRAULIC) 3 DUMPER 2 DUMPER 2 DUMPER 8 DOZER 2 BLAST HOST DRILL 3 WATER TANKER 1	list of machinery is given.
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Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed		Show cause position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(SANDEEP KUMAR SINGH)

Indian Bureau of Mines