

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/CND/LST-20/NGP

Mine code : 38MSH08022

- (i) Name of the Inspecting : **K013**) **KEWAL KRISHAN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri R.R.PRASAD, GM Mines
Official with
Designation
- (iv) Date of Inspection : 28/09/2018
- (v) Prev.inspection date : 07/10/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MARATHA (579.90 HA)**
- (b) **Registration NO.** : **IBM/447/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working :
- (e) Postal address
State : MAHARASHTRA
District : CHANDRAPUR
Village : SONAPUR
Taluka : RAJURA
Post office : UPPARWAHI
Pin Code : 442908
FAX No. :
E-mail :
Phone :
- (f) Police Station :
- (g) First opening date :
- (h) Weekly day of rest :
2. Address for :
correspondance
3. (a) Lease Number : MSH0012
(b) Lease area : 579.9
(c) Period of lease : 50
(d) Date of Expiry : 30/12/2034
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : M/S AMBUJA CEMENTS LTD.
ELEGANT BUSINESS PARK
GREATER BOMBAY MAHARASHTRA
Phone:
FAX :

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	11/06/2009
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	20/02/2015

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	In SOM for period 2014-15 to 2018-19, drilling of 89 boreholes with of 3940m of meterage was proposed at a grid interval 100m X 100m or closer to understand the geology of the intricate deposit and behavior of floor of limestone	The proposed drilling was completed in the year 2014-15 . A total of 86 boreholes were drilled with a meterage of 4456 m, at 100m X 100m grid interval.	
1b	Exploration over lease area for geological axis 1 or 2	nil	area already explored under G1 level	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	nil	nil for the year 2017-18	
1d	Balance area to be explored to bring Geological axis in 1 or 2	nil	nil	
1e	Balance reserve as on 01/04/20	reserves as on 01/01/2018	34 MT under 111 11 MT under 121 28 MT under 211 25 MT under 221 6 MT under 332	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2e Quantity of Total=189182 228665m3
 overburden M3 Soil 25530 m3
 generation in m3 Sub-grade
 Top Soil 30000 136940 m3
 m3
 Reject
 Sub-grade73181 66195 m3
 m3
 Reject
 86000 m3

2f General remarks
 of inspecting
 officers on
 development of
 pit w.r.t. type
 of deposit etc

The development
 comprises of
 limestone/shaly
 limestone and
 shale hence the
 development has
 been proposed
 according to
 quantity and
 quality of the
 cement plant

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	N2180000 N 2180200 E 311400 E 311800 N 2179420 N 2179500 E311820 - E312000 N2179300 N2179380 E 312200 E 312400 N2179750 N2179800 E310460 E310720 N2179560 N2179750 E310460 E310720 N2179480 N2179560 E310600 310940 N2180560 N2180700 E310520 E310640	as per proposal
3b	Quantity of ROM mineral production proposed	1.5 MT	1.49MT
3c	Recovery of sailable/usable mineral from ROM production	100%	100%
3d	Quantity of mineral reject generation	0.172 MT	0.132MT
3e	Grade of mineral rejects generation and threshold value declared.	Cao <34	as per prop[osal

3f	Quantity of sub grade mineral generation.	0.161 MT	0.301MT	
3g	Grade of sub grade mineral generation	34 to 42 % Cao	as per proposal	
3h	Manual / Mechanised method adopted for segregating from ROM	mechanised crushing	mechanised crushing	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	no such proposal	nil	Crushing & reducing the size -80 mm for plant supply
3j	Provision of drilling and blasting in mineral benches	Yes, As per the present practice, down the hole drill machine of 150mm size drill bit are deployed for drilling the blast holes. Rock breakers are also being used for breaking oversized boulders and explosive for blasting.	yes as per proposal	
3k	Provision of mining machineries in mineral benches	yes	Drill, Shovel (Hydrallic), Dumper (35 T) & Dumper (55 T)	All the operations are through mechanical means as the mine is fully mechanized Category A mine.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	yes	as per proposal	Bench height is 8.0 m and is appropriate as per the method of mining
3m	Total area covered under excavation/pits	As per the approved mining plan for the period 2014-15 to 2018-19, area under excavation/pits as on 1.4.2014 was 48.54 ha , additional requirement during the five year proposal period was 40.64 ha . Net area under excavation/pits as per proposal made will be 89.18 ha .	As per the Annual returns submitted for the year 2017-18, area covered Under excavation/ pits is 73.55 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.22	1:0.31	
3o	Total area put in use under different heads at the end of year		Mining: 73.55 ha, waste disposal 19.29 ha, Infrastructure and road 10.06 ha other purpose (plantation)26.38 ha, Total Area put to use:129.29 ha	
3p	Production of ROM mineral during the last five year period as applicable	2017-18-1.5 MT 2016-17-1.5 MT 2015-16-1.5 MT 2014-15-1.5 MT 2013-14-1.5 MT	2017-18 - 1.49 MT 2016-17 - 1.23 MT 2015-16 - 1.21 MT 2014-15 - 1.22 MT 2013-14 - 1.23 MT	

3q	General remarks of inspecting officers on method of mining etc.	Method of mining is Category A opencast and is fully mechanized , which is justified in terms of Capital expenditure, production requirements for feeding the Cement Plant..
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	yes	yes, top soil , OB and minerals rejects are stacked seperately	
4b	Location of topsoil, OB and mineral reject dumps	Top soil N2179460 N2179580 E310300- E310430 Subgrade N2178860 N21791200 E 311670 E312140 WD N2178500 N2179000 E 311420 E311880	as per proposal	
4c	Number of dumps within lease area and outside of lease area	04 within lease area	as per proposal	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	within lease area	within lease area	on -non mineralized area towards , south and south west
4e	Number of active and alive dumps.	04	as per proposal	

4f	Number of dead dumps.	nil	nil	
4g	Number of dumps established.	nil	nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	nil		Already made earlier & only being maintain in time to time
4i	Length of Retaining wall or garland drain all along dumps			L=2500m, W=1m, D=1m
4j	Number of settling ponds	no such proposal	nil	
4k	Specific comments of inspecting officer on waste dump management			Dump is surrounded by garland drains and retaining wall as protective measured to avoid wash-off and degradation of adjacent land. The waste dump are located outside the UPL & overall waste dump management aspect is satisfactory for the lease area.

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.	no such proposal	no such proposal	
5b	Area under backfilling of mined out area	nil	nil	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)			Concurrent use of top soil is being done for plantation on dumps.
5d	Total area fully reclaimed and rehabilitated	nil	nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No backfilling has been proposed upto the conceptual period and pits developed are proposed to be converted into water reservoir. Further, waste dumps are proposed to be stabilized through plantation upon attaining maturity.

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).	yes	yes	
6b	Area available for rehabilitation (ha) .	nil	nil	
6c	afforestation done (ha) .	1.00 ha	3.75 ha	
6d	No. of saplings planted during the year	2500	9382	
6e	Cumulative no .of plants		109619	
6f	Any other method of rehabilitation	nil	nil	

6g	Cost incurred on watch and care during the year		1078930/=
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	nil	nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	nil	nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	nil	nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	nil	nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	nil	nil
6m	Compliance of rehabilitation of waste land within lease area (i) afforestation	Green belt development over 1.0 ha area.	3.75 ha of lease area covered through plantation for the year 2017-18.

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	no such proposal	nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	no such proposal	nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes, environment monitoring is proposed for core zone and buffer zone	as per proposal	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Afforestation and Environment Monitoring in the core zone and buffer zone are being done regularly.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM is not dispatched, instead, ROM after rushing and sizing and blending with sub-grade (if required) is being dispatched to cement plant. Grade dispatched is Cement grade Limestone.	as per proposal	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	mechanised	mechanised	
7c	Different grade of mineral sorted out at mines.	cement grade limestone	as per proposal	
7d	Any beneficiation process at mines .		The mechanical crushing of limestone is being undertaken wherein the size of Limestone is reduced to make it amenable for use as raw feed.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			ROM after crushing is being fed to kiln. Some studies are still underway to upgrade the quality alongwith higher yield. at the mine level, sub-grade is being stacked separately and is being used for blending as and when required.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	yes	yes	
8b	Concurrent use or storage of topsoil	yes	for plantation	2400 m3 top soil has been utilized for plantation
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	yes	dumps are maintained seperately.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	no such proposal	nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Dumps are stabilized through terracing and plantation	Dumps are stabilized through terracing and plantation	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	yes	yes	On top soil dump slope & along lease boundary
8g	Survival rate	80%	almost as per proposal	
8h	Water sprinkling on roads to control airborne dust	yes	3 Nos Water tanker deployed	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty is good due to the plantation carried out within the lease area by the lessee and also the workplace is clean and general cleanliness is being maintained

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns		M.R. Submitted upto August 2018 A.R. submitted for the year 2017-18
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	yes	provided
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	yes	provided
9d	Scrutiny of Annual return on afforestation	yes	provided
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	yes	provided
9f	Scrutiny of Annual return on ROM stock and/or graded ore	yes	provided
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	yes	provided
9h	Scrutiny of Annual return on fixed assets	yes	provided
9k	Scrutiny of Annual return on mining machineries	yes	provided

Details of violations observed during current inspection and compliance position of violation pointed out

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

Date :

(KEWAL KRISHAN)

Indian Bureau of Mines