

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

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/STN/LST-128

Mine code : 38MPR35053

- (i) Name of the Inspecting : **G006**) **ABHISHEK RANJAN GAUTAM**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri Anshuman Rai, Lessee Representative & Shri Sanje
Official with
Designation
- (iv) Date of Inspection : 01-SEP-21
- (v) Prev.inspection date : 11-FEB-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **NADAN (1)**
- (b) **Registration NO.** : **IBM/6666/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : SATNA
Village : NADAN
Taluka : MAIHAR
Post office : NADAN
Pin Code : 485771
FAX No. : 07674-232144
E-mail : raico34@yahoo.com
Phone : 07674-232032 (O), 232094 (R)
- (f) Police Station : MAIHAR
- (g) First opening date :
- (h) Weekly day of rest : SAT
2. Address for : SHRI OM PRAKASH RAI
correspondance PROP. M/S RAI LIME CO.
P.O. MAIHAR, DIST. SATNA (M.P.) 485771
3. (a) Lease Number : MPR0381
- (b) Lease area : 8.09
- (c) Period of lease : 20
- (d) Date of Expiry : 08-NOV-02
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : RAI LIME CO.
 PROP.OM PRKESH RAI P.O.
 MAIHAR SATNA MADHYA
 PRADESH
 Phone:07674-232032 (O), 232094 (R)
 FAX :N. A.

Owner : RAI LIME CO.
 PROP.OM PRKESH RAI P.O.
 MAIHAR SATNA MADHYA
 PRADESH
 Phone: N. A.
 FAX : N. A.

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	06-OCT-99
Plan/Scheme of Mining		Renewal under rule 24 MCR1960	25-MAY-07
		Mining Scheme rule 12 MCDR1988	04-JUL-14
		MP modif under 17(3) MCR 2016	05-NOV-18

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	The MMP was approved on 05/11/2018, for the period 2018-19 to 2022-23. In which 04 boreholes upto 30 m. depth.	Not done as per proposal	The exploration work as proposed was not done for which violation of rule 11(1) pointed out.
1b	Exploration over lease area for geological axis 1 or 2	The MMP was approved on 05/11/2018, for the period 2018-19 to 2022-23. In which 04 boreholes upto 30 m. depth proposed in the year 2018-19 for exploration over lease area for geological axis 1.	Not done as per proposal	The exploration work as proposed was not done for which violation of rule 11(1) pointed out.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not given	Exploration not done as per proposal.	

1d	Balance area to be explored to bring Geological axis in 1 or 2	The MMP was approved on 05/11/2018, for the period 2018-19 to 2022-23. In which 04 boreholes upto 30 m. depth proposed in the year 2018-19 for exploration over lease area for geological axis 1.	Exploration not done as per proposal.	The exploration work as proposed was not done for which violation of rule 11(1) pointed out.
1e	Balance reserve as on 01/04/20			Balance reserve as on 01/04/2021 - 742050 tons.
1f	General remarks of inspecting officers on geology, exploration etc			The exploration work as proposed was not done for which violation of rule 11(1) pointed out.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Proposed to develop the Quarry towards East & West of Quarry with height of bench 1.75 mtr and 10-15mtr width.	Development work done as per proposal.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes, Separate bench for top soil, Over burden & Mineral	Yes, Separate bench for top soil, Over burden & Mineral	
2c	Stripping ratio or ore to OB ratio	1:0.64	1:0.60	

2d	Quantity of topsoil generation in m3	Top soil 921 m3	Used for plantation.	
2e	Quantity of overburden generation in m3	Over Burden - 15644 m3	Record of OB/SB/IB generated during the year not maintained.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Proposed to develop the Quarry towards East & West of Quarry with height of bench 1.75 mtr and 10-15mtr width. Top soil used for plantation.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit	One pit	
3b	Quantity of ROM mineral production proposed	The production of 63825 tonnes ROM was proposed from existing pit during 2020-21.	The production of 61950 tonnes of ROM reported during 2020-21.	
3c	Recovery of sailable/usable mineral from ROM production	The recovery of limestone about 80% from ROM proposed from existing pit.	Recovery of about 80% drom ROM reported.	
3d	Quantity of mineral reject generation	The waste /reject about 20% from ROM proposed from existing pit.	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Not proposed	Not applicable	

3f	Quantity of sub grade mineral generation.	Not proposed	Not applicable
3g	Grade of sub grade mineral generation	Not proposed	Not applicable
3h	Manual / Mechanised method adopted for segregating from ROM	Not proposed	Not applicable
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed	Not applicable
3j	Provision of drilling and blasting in mineral benches	Deep Hole drilling & blasting proposed in mineral benches for the year 2020-21.	As per proposal
3k	Provision of mining machineries in mineral benches	Yes	FRONT END LOADER -0.000 CUM - 1 Nos DUMPER - 10.000 TONNE - 2 Nos DUMPER -16.000 TONNE -1 Nos WATER TANKER - 20000.000 LITRE - 1 Nos PUMPS (NON-ELEC.) 0.000 L/MN - 1 Nos
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed	Yes, Suitable for working
3m	Total area covered under excavation/pits	1.160 ha	1.160 ha
3n	Ore to OB ratio for the pit/mine during the year.	1:0..64	1:0..64

3o	Total area put in use under different heads at the end of year	The total area put in use under different head about 2.8 ha. 2.99 ha.	
3p	Production of ROM mineral during the last five year period as applicable	2016-17 - 43376 Tons 2017-18 - 53785 Tons 2018-19 - 64645 Tons 2019-20 - 63091 Tons 2020-21 - 63825 Tons	2016-17 - 540 Tons 2017-18 - 00 Tons 2018-19 - 33400 Tons 2019-20 - 24550 Tons 2020-21 - 61950 Tons
3q	General remarks of inspecting officers on method of mining etc.		Mining was proposed by open cast method deploying HEMM. During the inspection it was noticed that same process has been adopted.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes, 15644 m3 OB/Soil generation proposed during 2020-21.	Top soil used in plantation.	
4b	Location of topsoil, OB and mineral reject dumps	Between boundary pillar no 15 to 16.	Not done as per proposal, however top soil used in plantation.	Violation of rule 11(1) pointed out for proposed backfilling.
4c	Number of dumps within lease area and outside of lease area	01 nos. of Dump proposed within lease area.	Dump not stabilshed as per proposal. However top soil used in plantation.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Between boundary pillar no 15 to 16.	Not done as per proposal, however top soil used in plantation.	Violation of rule 11(1) pointed out for proposed backfilling.
4e	Number of active and alive dumps.	One	Nil	

4f	Number of dead dumps.	Nil	Not applicable	
4g	Number of dumps established.	One	Not done as per proposal, however top soil used in plantation.	
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed	Not applicable.	
4i	Length of Retaining wall or garland drain all along dumps	Not proposed	Not applicable.	
4j	Number of settling ponds	Not proposed	Not applicable.	
4k	Specific comments of inspecting officer on waste dump management			Top soil used for plantation.

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.	So far backfilling of mined out area has not been proposed. Only mined out area of statutory barrier zone was proposed to be backfilled.	Proposed backfilling of statutory barrier zone was not found backfilled.	Violation of rule 11(1) pointed out for proposed backfilling.
5b	Area under backfilling of mined out area	Backfilling proposed in 7.5 meter barrier zone near boundary pillar no 10	As per proposal backfilling was not done.	Violation of rule 11(1) pointed out for proposed backfilling.

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	The generatyed top soil during mining operation was proposed to utilised in toping of proposed backfilled statutory 7.5m barrier zone.	Evidence of concorent utilisation of top soil were not seen within the lease area.	Violation of rule 11(1) pointed out for proposed backfilling.
5d	Total area fully reclaimed and rehabilitated	Backfilling proposed in 7.5 mtr Barrier zone near boundary pillar no 10 & 11	Backfilling of proposed statutory barrier zone of 7.5m was not seen within the lease area during inspection.	Violation of rule 11(1) pointed out for proposed backfilling.
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Violation of rule 11(1) pointed out for proposed backfilling

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).	Proposed	Not submitted	Violation of rule 26(2) pointed out for PMCP report.
6b	Area available for rehabilitation (ha) .	Broken out area of statutory barrier zone was proposed for plantation after backfilling .	Plsntation on proposed site were not observed .However plantation on along the lease boundary was seen.	Violation of rule 11(1) pointed out for proposed backfilling.
6c	afforestation done (ha).		Around 110 numbers of tree planted during the year.	Efforts made by the lessee towards plantation appears fine.
6d	No. of saplings planted during the year		Around 110 numbers of tree planted during the year.	

6e	Cumulative no .of plants	Not available	PMCP report not submitted. As per available records around 110 nos of tree planted during the year.	
6f	Any other method of rehabilitation	Not proposed	Not applicable	
6g	Cost incurred on watch and care during the year	Not given	Not given.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Backfilling proposed in 7.5 meter barrier zone near boundary pillar no 10	Reclamation and rehabilitation of broken out area of statutory barrier zone not observed during inspection.	defficiency in this regard point out through violation of rule 11(1) of MCDR,2017
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Backfilling proposed in 7.5 meter barrier zone near boundary pillar no 10	Backfilling not done.	Violation of rule 11(1) pointed out for proposed backfilling.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not proposed	Not applicable.	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed for the year 2020-21.	Not applicable.	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	Not applicable	

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed for the year 2020-21.	Not applicable	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed	Not applicable	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed	Not applicable	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Within prescribed limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Violation of rule 11(1) pointed out for backfilling. The damage towards environment is less. cluster of lease area surrounded by agricultural land. Agricultural activities were seen in the area during the inspection. Progressive closure activities were not seen during inspection.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area not proposed.	ROM produced from the mine id directly supplied to nearby cement plant.
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 and beneficiation issues		No processing of limestone is proposed to be adopted to upgrade the ROM in the lease area. Quality of limestone of the mine is fine. There is no need of any beneficiation for the upgradation of limestone for the purpose of supply to the consignee.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes,	Yes, used for plantation.	

8b	Concurrent use or storage of topsoil	Both, concurrent use and storage of top soil was proposed for which there is an yearmark place.	Both, concurrent use as well as storage of top soil were not observed during inspection. However generated soil is utilised for planation purpose.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Backfilling was proposed	Backfilling not done as per proposal	Violation of rule 11(1) pointed out for backfilling
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling was proposed	Backfilling not done as per proposal	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed	Not applicable	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation proposed on backfilled portion of 7.5 mtrs statutory barrier zone.	Plantation on proposed site were not seen . However plantation along lease boundary were observed.	Violation of rule 11(1) pointed out for proposed backfilling.
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Proposed	Done with water tanker	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Efforts made by lessee in this regard may be considered satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		The monthly return submitted upto June 2021 & Annual return submitted upto 2020-21.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Appointment of Mining Engineer & Geologist has not been Submitted.	Violation for rule 55 has been pointed out.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		NA	Violation for rule 31(4) has been pointed out.
9d	Scrutiny of Annual return on afforestation			PMCP report not submitted. As per available records around 110 nos of tree planted during the year.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Not given in AR	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	The production of 63091 tonnes was proposed from existing pit during 2020-21.	The production of 61950 tonnes of limestone reported during 2020-21.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost		Ex mine price-Rs 318/-, Sale value Rs 368/- Tone & cost of production given Rs 335.15/- Tone.	
9h	Scrutiny of Annual return on fixed assets		Rs 200000/-	

9k	Scrutiny of Annual return on mining machineries	FRONT END LOADER -0.000 CUM - 1 Nos DUMPER - 10.000 TONNE - 2 Nos DUMPER -16.000 TONNE -1 Nos WATER TANKER - 20000.000 LITRE - 1 Nos PUMPS (NON-ELEC.) 0.000 L/MN - 1 Nos
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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
MCDR17	Rule 11(1)	09-SEP-21			
MCDR17	Rule 26(2)	09-SEP-21			
MCDR17	Rule 31(1)	09-SEP-21			
MCDR17	Rule 55(1) (3)	09-SEP-21			

Date :

(ABHISHEK RANJAN GAUTAM)

Indian Bureau of Mines