

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/CND/LST-11/NGP-III

Mine code : 38MSH08012

- (i) Name of the Inspecting : **K02**) **Kalmata.M.K.**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : **SHRI R.S.Ambhorkar, Mines Manager & A.Saxena, Geolog**
Official with
Designation
- (iv) Date of Inspection : 09-DEC-21
- (v) Prev.inspection date : 06-FEB-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MANIKGARH**
- (b) **Registration NO.** : **IBM/4952/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : MAHARASHTRA
- District : CHANDRAPUR
- Village : KUSUMBI
- Taluka : RAJURA
- Post office : GADCHANDUR
- Pin Code : 442908
- FAX No. : 07173-246867
- E-mail : mines@manikgarhcement.com
- Phone : 07173-245092, 245067, 2450:
- (f) Police Station :
- (g) First opening date : 05-MAR-86
- (h) Weekly day of rest : SUN
2. Address for : P.O. GADCHANDUR
correspondance : DISTT. CHANDRAPUR
3. (a) Lease Number : MSH0002
- (b) Lease area : 264.00Ha (Out of 493.00Ha granted area, State Government has executed only 264.00H)
- (c) Period of lease : 50
- (d) Date of Expiry : 16-AUG-31
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : M/S CENTURY TEXTILES & INDUSTRIES LTD.
 Century Bhawan, Dr. Annie
 Besant Road, Mumbai (MS)
 GREATER BOMBAY MAHARASHTRA
 Phone:022-- 4300351
 FAX :022-4309491

Owner : SHRI B.L.JAIN (NOMINATED OWNER)
 GREATER BOMBAY
 MAHARASHTRA
 Phone:
 FAX :

Agent : S.K.Tiwari.
 CHANDRAPUR MAHARASHTRA
 Phone:
 FAX : 07173 - 246867

Mining Engineer

Name : Shri S.M.Sarpatwar.
 Qualification : BE (MINING)
 Appointment/ : N.A.
 Termination date

Geologist

Name : Shri. A.Saxena
 Qualification : , M.Tech., M.Sc. Geology
 Appointment/ : N.A.
 Termination date

Manager

Name : Shri.R.S.Amborkar.
 Qualification : B.E.Mining & First Class Mines Manager certificate.
 Appointment/ : 01.10.2019
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	26-MAY-00
		Modif.of approved Mining Plan	21-NOV-02
		Mining Scheme rule 12 MCDR1988	05-MAY-06
		Modif.approved Mining Scheme	02-FEB-07
		Renewal under rule 24 MCR1960	07-FEB-07
		Modif.approved Mining Scheme	23-SEP-08
		Modif.approved Mining Scheme	21-JUL-11
		MP modif under MCR 1960	07-JUN-16
		MP under 16(1) of MCR 2016	24-NOV-20

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration was proposed in the present plan period.	Nil.	Entire mineralized area is fully explored, so no exploration proposals were made in the present plan period.
1b	Exploration over lease area for geological axis 1 or 2	No exploration proposal has been made in the present plan period	Nil in the present plan period.	Entire mineralized area is explored under G-1 level.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No exploration proposal has been made in the present plan period.	No exploration is carried out in the present plan period.	In the previous plan period i.e. between 2011-12 to 2015-16, lessee has drilled 28 exploratory boreholes through M/s. Tappan Kumar Bid, Nagpur and expenditure incurred on exploration was Rs-25.81Lakhs.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Entire Mineralized area is explored under G-1, level.

1e	Balance reserve as on 01/04/20	Reserves/resources as per approved document dated 17.12.2020, is as follows. (In Million tonnes) Proved Reserves (111) - 82.61 Feasibility M Resources (211) - 52.05 Indicated M Resources (332) - 13.40 Inferred M Resources (333) - 133.64 Total -	Reserves/resources as on 01.04.2021. In Million tonnes. Proved Reserves (111) - 82.61 Feasibility M Resources (211) - 52.05 Total - 134.66	Since the lease was executed only for 264.00Ha out of 493 granted area, the resources estimated from remaining 229Ha, for which forest clearance is pending is not considered, so total resource figures are decreased compare to last approved document. Now lessee has submitted MMP for 264.00 lease area which under process, in that lessee has advised to show reserves/resources for executed lease area only.
		281.70		

1f	General remarks of inspecting officers on geology, exploration etc	From 1965 to 2011-12, the lease area was explored by different agencies, like, GSI, DGM, Maharashtra and other Private agencies. Total 177 exploratory boreholes were drilled in the lease area at 100m x 100m grid interval. Entire Mineralized area is explored under G-1 level, so no additional exploration was proposed in the present plan period.
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Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	In the year 2021-22, Production and development was proposed In the ABC and EF, blocks.	The production and development has been carried out as per the proposal.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches were proposed in Ore and OB.	Separate benches were mad in ore and OB.	Total 12 benches were made in the Northern side of ABC block, out of 12, 6 benches wer in basalt formation. In Southern side of the ABC block total 09 benches were made 08 in ore and one in Basalt. Further in EF block Total 12 benches were made out of 12, 05 benches are in basalt formation.
2c	Stripping ratio or ore to OB ratio	1:0 in the year 2021-22	No ore burden is removed in the year 2021-22.	In the year 2021-22, proposal was made and working has been carried out in the ore zone only. So generation of OB is nil.
2d	Quantity of topsoil generation in m3	No topsoil generation was proposed in the year 2021-22.	Nil.	Working has been carried out in the already brokenup area only.
2e	Quantity of overburden generation in m3	Generation of overburden was not proposed in the year 2021-22.	Nil.	Working has been carriedout in the ore zone only.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Development has been carried out has per the proposals. Working has been carried out at different locations having different gardes to maintain the quality.Lessee is dispatching ROM by blending low grade ore with hight grade as per the requirement of the plant.	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two pits, one in ABC block and one in EF block.	Working has been carried out as per the proposal.	Dimension of the pit is as follows, ABC pit- 1740mtr(L) x 575Mtr(W) X 60mtr(d) , Dimension of EF Pit- 1070mtrs(L) x 420mtr (W) x 45mtr(D) .
3b	Quantity of ROM mineral production proposed	55,50, 000 tonnes in the year 2021-22.	29,30,844 Tonnes (Upto Dec-21)	
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	Entire ROM has been dispatched to Plant for captive consumption.
3d	Quantity of mineral reject generation	Not proposed.	Nil.	Entire ROM has been utiized by blending.
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable.	Not applicable.	
3f	Quantity of sub grade mineral generation.	Not proposed.	Nil	Entire ROM has been utilized by blending.
3g	Grade of sub grade mineral generation	Not applicable.	Not applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical	Mechanical	Two crushers of 1000 and 1200 TPH capacity are installed for crusing of limestone boulders of 250mm to 1500mm size.
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	Wet drilling by 150mm track mounted DTH drills and deephole controlled blasting method is proposed.	As per the proposal.	
3k	Provision of mining machineries in mineral benches	Combination of hydraulic excavator and dumpers were proposed.	Two shovels of 3.1 Cum capacity and dumpers of 35 tonne capacity were working in the mineral benches.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	10 mtr bench height was proposed.	Bench height is maintained 8.00 to 10 mtrs.	Bench height has been selected as per the mechanization adopted and is suitable for method of working.
3m	Total area covered under excavation/pits	148.938Ha in the present plan period.	145.189 Ha.	In the year 2021-22 working has been carried out in the already broken up area only.
3n	Ore to OB ratio for the pit/mine during the year.	1:0	1:0	In the year 2021-22, working has been carried out in the orezone only and recovery is 100%. (upto Dec-21)
3o	Total area put in use under different heads at the end of year	Area under Mining:- 148.938Ha, Waste Dump- 42.836, Infrastructure - 4.59, Mineral Storage- 2.33Ha., Roads-2.808Ha,	Area under Mining- 145.189Ha, Waste Dump- 42.376Ha, Infrastructure- 4.59Ha, Mineral Storage-2.33Ha. Roads-2.808Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2021-22 55,50,000 T 2020-21 55,50,000 T 2019-20 55,50,000 T 2018-19 55,50,000 T 2017-18 55,50,000 T	2021-22 29,30,844 (Up to Dec-21) 2020-21 42,15,182 T 2019-20 40,42,009T 2018-19 42,25,327T 2017-18 39,77,766T	

3q	General remarks of inspecting officers on method of mining etc.	The mine is working as a Fully mechanized mine and lessee is using combination of Shovels and dumpers for loading and transportation ore and OB. Adopted wet drilling and Deephole controlled blasting method to minimize pollution. The bench parameters are maintained as per the proposal for ore and OB. Presently working is being carried out in Two pits (Block ABC and Block EF) as per the proposal to maintain the quality of the ore and for conservation of Mineral.
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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)	No dumping was proposed in the year 2021-22.	No dumping was made in the year 2021-22.	No insitu waste was removed and dumped in the year 2021-22, however, the quantity of waste removed from C dump (re-handling as per the proposal) is used for making embankment within 45 mtr of Nallah bank . However, during earlier plan periods, dumping of wate, Subgrade and topsoil is made separately.

4b	Location of topsoil, OB and mineral reject dumps	No dumping was proposed in the year 2021-22.	No waste dumping was made in the year 2021-22. The waste removed from rehandling of waste dump is utilized for making embankment within 45 mtr of Nallah bank.	Total Eight dumps are existing within the lease area, 06 waste dumps , one Subgrade and one Topsoil dump. Out of 06 waste dumps 03 dumps are existing in the ABC block, One in EF block and Two Near crusher, Topsoil dump and subgrade dumps were existing in the D block.
4c	Number of dumps within lease area and outside of lease area	No dumping was proposed in the year 2021-22.	No dumping was made in the year 2021-22.	Total 08 dumps are existing within the lease area. Six waste dumps, one topsoil dump and one subgrade dump.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the UPL	Outside the UPL	
4e	Number of active and alive dumps.	Two	Two	One waste dump and one topsoil dump.
4f	Number of dead dumps.	Not proposed in the year 2021-22	Nil.	Total 06 dead dumps are existing within the lease area. (Five waste dumps and one subgrade dump)
4g	Number of dumps established.	No such proposals were made in the year 2021-22.	Nil.	So far, five dead dumps were stabilized by plantation.
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed in the year 2021-22.	Only maintenance of retaining walls and garland drains done.	Retaing walls are existing all along the toe of the dumps.
4i	Length of Retaining wall or garland drain all along dumps	Not proposed.	Only maintenance work is done in the present plan period	Retaining walls are existng all along the toe of the waste dump and total length of retaining walls is approximately 3316 mtrs. and total length of Garland drain is 2750 mtr.

4j	Number of settling ponds	Not proposed.	Nil.	One settling tank of 18m X 23Mtr dimension is existing.
4k	Specific comments of inspecting officer on waste dump management		Waste generated in the present plan period was utilized for making embankment within 45mtr of nallah bank. The dumping was made as per the proposal. Total six waste dumps are existing within the lease area. out of six Five dumps are inactive and one is active. Inacative dumps are stabilised by plantation. Retaining walls and garland drains are existing all along the toe of the waste dump.	

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 backfilling was proposed in the the year 2021-22.	Nil	Mineral is not extracted upto the proved depth, so no backfilling is proposed in the present plan period.
5b	Area under backfilling of mined out area	Not proposed.	Nil.	No area is matured for backfilling.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Topsoil existing in the stock yard was proposed for utilization for plantation work.	Topsoil existing in the stock yard is utilising for plantation work on inactive dumps.	About 1353Cum topsoil was rehandled from the existing dump and same was utilized for plantation work within the lease area.
5d	Total area fully reclaimed and rehabilitated	No reclamation and rehabilitation was proposed in the year 2021-22.	Nil.	So far, about 2.18Ha of worked out benches and 42.376Ha of inactive waste dump was reclaimed by plantation.

5e	General remarks of inspecting officers on backfilling and reclamation etc.	The mineral is not extracted upto the proved level, so no backfilling was proposed in the present plan period. However, so far , about 2.18Ha of worked out benches and 42.376Ha of inactive waste dump was reclaimed by plantation.
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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).	Before 1st july of every year.	Lessee has submitted the yearly report on PMCP within time.	
6b	Area available for rehabilitation (ha) .	Not proposed.	Nil.	So far, about 2.18Ha of worked out benches and 42.376Ha of inactive waste dump was reclaimed by plantation.
6c	afforestation done (ha).	0.94Ha	1.1Ha.	Plantation was made in the worked out benches and gap filling in the already stabilized inactive dumps.
6d	No. of saplings planted during the year	2888 saplings	3000 saplings planted.	Plantation was made on the inactive dumps and worked out benches.
6e	Cumulative no .of plants	Total plantation proposed in the present plan period is 22080 sapling, upto 2025-26.	3000 saplings were planted In the year 2021-22	So far 1,55,159 saplings were planted within the lease area.
6f	Any other method of rehabilitation	Not proposed.	Nil.	
6g	Cost incurred on watch and care during the year	3.6 lakhs in the year 2021-22.	approximately 3.0Lakhs.	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not proposed.	Nil.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed.	Nil.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not proposed.	Nil.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed.	Nil.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not proposed.	Nil.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not proposed.	Nil.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not proposed.	Nil.
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Not proposed.	Nil.

6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed, regular monitoring of Air, Water, Noise in the core and buffer zone.	Lessee is regularly monitoring, Air, Water and Noise, as per MoEF guidelines and results are within permissible limits.	The environmental monitoring was carried out by Aswamedha Engineers and consultants.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Reclamation and rehabilitation of inactive dumps and ultimate benches were made by plantation. Total 1,55,159 saplings were planted so far. Lessee is regularly maintaining retaining walls and garland drains which are existing all along the toe of dumps. Apart from this, lessee is regularly monitoring, Air, Water and Noise as per MoEF guidelines.	

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM mineral is crushed and dispatched to the cement plant after sizing.	As per the proposal.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical.	Mechanical.	
7c	Different grade of mineral sorted out at mines.	Cement Grade.	Cement Grade.	
7d	Any beneficiation process at mines .	Not proposed.	Nil.	Lessee is doing only mechanical size reduction. The ROM limestone is crushed to a size of minus 80mm.

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	In order to feed specified size limestone to cement plant, lessee is only crushing of the ROM. Lessee is consuming all the ROM by blending low grade ore with the high grade as per the requirement of the plant.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Removal of topsoil was not proposed in the present plan period.	No topsoil was removed in the present plan period.	In the year 2021-22, 1353 Cum topsoil rehandled from the existing dump and same was utilized for plantation work within the lease area.
8b	Concurrent use or storage of topsoil	Not proposed.	Nil.	Rehandled topsoil from the existing dump was utilized for plantation work.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	yes proposed.	Dumping was done separately for OB, Ore and rejects.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed.	Nil.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes, proposed for inactive dumps and ultimate benches.	As per the proposal	Inactive dumps and ultimate benches were reclaimed and rehabilitated by plantation. About 3000 plantation was made in the year 2021-22.

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes. The information has been furnished in the mining plan document.	Additionally, 3000 saplings were planted in the year 2021-22, covering inactive dumps and ultimate benches.	Total 1,55,159 saplings have been planted so far.
8g	Survival rate	Not proposed.	80 to 85%	Lessee is monitoring the plantation by regular watering.
8h	Water sprinkling on roads to control airborne dust	Yes	Regularly, spraying water on the mine Haul road, transportation road, dump area, etc.	Two water tankers of 9000 ltrs and 15000ltrs are in use for water sprinkling.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Benches were maintained systematically. Dense plantation was done on inactive dumps and ultimate benches. about 155159 saplings were planted so far. Retaining walls are provided all along the toe of the dumps. Over all aesthetic beauty of the mine is good.	

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	A monthly return shall be submitted before the tenth day of every month in respect of the preceding month and an annual return shall be submitted before the 1st day of July each year for the preceding financial year.	Lessee is regularly submitting monthly and annual returns.	Submitted monthly returns upto Dec 2021 and Annual returns for the year 2020-21.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer : Shri S.M Sarpatwar, Geologist: Shri A Saxena and Manager Shri R.S.Amborkar.	The details of Mining Enginner, Geologist and Manager given in the annual returns are found correct.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Mining- 145.189ha, Reclaimed/Rehabilitated- 42.376, Infrastructure - 8.898Ha, Mineral storage (sub grade) +topsoil- 2.566Ha.	Information furnished on utilisation of lease area under different heads is found correct.	
9d	Scrutiny of Annual return on afforestation	3900 saplings inside the lease area.	Information furnished in the Annual returns is found correct.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil.	No mineral reject was generated in the year 2020-21.	Complete ROM is dispatched to cement plant by blending lowgrade with high grade as per the requirement of the plant.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	42,15,182.250 tonnes of ROM was produced in the year 2020-21 and same quantity is dispatched as cement grade to the cement plant for captive consumption. Opening and closing stock of ROM and graded ore is shown as Nil.	Information given in the annual returns is found correct.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Exmine price and cost of production is shown as Rs 271.94 /tonnee and Sale value- zero.	The ore is dispatched for the purpose of captive consumption, so sale value is shown as zero. Details of exmine price and cost of production were found correct.	

9h	Scrutiny of Annual return on fixed assets	Value of fixed assets given in the Annual Returns is Rs 6370136356. (Land- Rs 53466000 , Industrial- Rs 34512691 , Residential Rs -28039367, Plant and Machinery including transport equipment, Rs 1065041382. Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc. Rs 5189076916.	Information given on fixed assets is found correct
9k	Scrutiny of Annual return on mining machineries	Shovals, 3.1cum capacity 02Nos , 35 tonnes capacity dumpers-10, Grader-01, Dozer-01 and rock drillers 02. Cruusher -02	All the machines were available in mines and information given in the returns is found correct.

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 :

(Kalmata.M.K.)

Indian Bureau of Mines