

**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 A.Saxena, Geologist
Official with
Designation
- (iv) Date of Inspection : 18/03/2020
- (v) Prev.inspection date : 06/01/2020

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** : **05/03/1986**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **P.O. GADCHANDUR**
correspondance : **DISTT. CHANDRAPUR**
3. (a) **Lease Number** : **MSH0002**
- (b) **Lease area** : **493**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **16/08/2031**
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 : R.K.UDGE
 CHANDRAPUR MAHARASHTRA
 Phone:
 FAX : 07173 - 246867

Mining Engineer

Name : R.S.AMBHORKAR, Full Time
 Qualification : BE (MINING)
 Appointment/ : 03/01/1996
 Termination date

Geologist

Name : Shri G.M.Bohra, Full Time
 Qualification : , M.Tech., M.Sc. Geology
 Appointment/ : 15/10/1990
 Termination date

Manager

Name : Shri S K TIWARI
 Qualification : Dip. in Mining, First Class Manager Cert
 Appointment/ : 08/11/2010
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	26/05/2000
		Modif.of approved Mining Plan	21/11/2002
		Mining Scheme rule 12 MCDR1988	05/05/2006
		Modif.approved Mining Scheme	02/02/2007
		Renewal under rule 24 MCR1960	07/02/2007
		Modif.approved Mining Scheme	23/09/2008
		Modif.approved Mining Scheme	21/07/2011
		MP modif under MCR 1960	07/06/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration proposal has been made in the present plan period.	Nil in the present plan period.	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 the approved document dated:- 07.06.2016 is as follows. Proved M Reserves (111) - 95.99 Million tonnes, Feasibility M Resources (211) - 52.05 Million Tonnes Total -148.04 Million tonnes	Reserves as on 01.04.2020 Proved M reserves - 80.51 Million tonnes Feasibility M Resources - 52.05 Million tonnes Total - 132.05 Million Tonnes	Total 15.48 million tonnes of production was made between 2016-17 to 2019-20 and same has been depleted from the reserve figures which are given in the approved document dated 07.06.2016.
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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
2a	Location of development w.r.t.lease area	Production and development was proposed in Bolk-A, B, C, E and F.	Working has been carried out as per the proposal.	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes proposed.	Separate benches were made in topsoil, OB and ore.	8 benches were made in ore and bench height is maintained at 8 to 10mtrs in ore. Total 6 Ob benches are existing and height of the OB bench is maintained at 5 to 6 mtrs. and topsoil face is existing in the C block.
2c	Stripping ratio or ore to OB ratio	1:0.013	1:0.017	
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	46428 CUM (10714 CUM, OB and 35714 CUM waste)	51921 CUM (10715 CUM OB and 41206CUM waste)	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Development has been carried out as per the proposals. Working has been carried out at different locations having different grades to maintain the quality. Lessee is dispatching ROM by blending low grade ore with high grade as per the requirement of the plant.	

Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	Working has been proposed in five pits during the year 2018-19 and 2019-20.	Working has been carried out as per the proposal.	Five pits were proposed to achieve the production target and to maintain the quality.

3b	Quantity of ROM mineral production proposed	55,50,000 tonnes, in the year 2018-19	42,25, 327.517 tonnes in the year 2018-19.	Production was achieved upto 76.13% in the year 2018-19. In the year 2019-20, 3681239 tonnes of ROM was produced upto Feb-2020, against the target of 55,50,000 tonnes.
3c	Recovery of sailable/usable mineral from ROM production	100 %	100 %	
3d	Quantity of mineral reject generation	Not proposed.	Nil	Lessee is consuming entire ROM by blending lowgrade ore with high grade.
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable.	Not applicable.	
3f	Quantity of sub grade mineral generation.	Nil	Nil	
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 crushing 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 3.2 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	Bench height was proposed 10 Mtr in ore and 6 mtr in OB.	Bench height in ore is maintained at 8-10 mtrs in ore and 5 to 6 mtr in OB.	Bench height has been selected as per the mechanization adopted and is suitable for method of working.
3m	Total area covered under excavation/pits	Total area proposed in the present plan period was 148.77 Ha (143.37 already broken up area and 5.40Ha additional area)	Total area covered under pits is 145.189 Ha	Total five pits are existing within the lease area named as Block, A,B,C, E and F. The block A, B and C are almost merged.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.013	1:0.017	
3o	Total area put in use under different heads at the end of year	Area proposed under different heads in the present plan period is as follows:- Area under Mining-148.77 Ha, Area under waste dump-41.40Ha, Infrastructure :- 4.54Ha, Roads-2.63Ha.	Area under Mining-145.189 Ha, Area under Dumping-43.48Ha (Waste dump+topsoil storage), Infrastructure-4.54 & Roads-2.63Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2018-19 55,50,000 Tonnes 2017-18 55,50,000 Tonnes 2016-17 55,50,000 Tonnes 2015-16 55,50,000 Tonnes 2014-15 55,00,000 Tonnes	2018-19 4225327.517 Tonnes 2017-18 3977766.430 Tonnes 2016-17 3236464.000 Tonnes 2015-16 3956318.000 Tonnes 2014-15 2896927.000 Tonnes	

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 five pits (Block-A,B,C,E and F) 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)	Dumping was proposed for OB only.	Dumping of OB was done as per the proposal.	Generation of topsoil and Mineral reject was not proposed in the present plan period. However topsoil and subgrade removed in the last plan period is stocked separately.
4b	Location of topsoil, OB and mineral reject dumps	Waste was proposed to utilized for making embankment within 45mtrs of Nallah Bank and also dumping on old dump in F block.	Maximum waste generated in the year 2018-19 is utilized for making embankment within 45 mtr of Nallah bank and some quantity is dumped on the existing old dump in F block.	Dumping of waste was made as per the proposal.

4c	Number of dumps within lease area and outside of lease area	In the present plan period two dumps are proposed. One making embankment along the bank of nallah and one extension of old dump in the F block.	Dumping was made as per the proposal in the present plan period.	Total 07 dumps are existing within the lease area. Five 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 is embankment all along the bank of nallah and other old dump existing in the F block.
4f	Number of dead dumps.	Five	Five	Out of five, 4 dumps are completely dead and is partially active.
4g	Number of dumps established.	Five	Five	Out of five one is partially active.
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed in the present plan period.	Only maintenance of retaining walls and garland drains done.	Retaining walls are existing all along the toe of the dumps.
4i	Length of Retaining wall or garland drain all along dumps	Not proposed in the present plan period.	Only maintenance work is done in the present plan period.	Retaining walls are existing all along the toe of the waste dump and total length of retaining walls is approximately 2000 mtrs.
4j	Number of settling ponds	Not proposed in the year 2018-19.	Nil	Two old settling ponds are 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 and some quantity was dumped on old dump existing in the F block. The dumping was made as per the proposal. Total five waste dumps are existing within the lease area. out of five four dumps are inactive and one is partly active. Inacative dumps are stabilised by plantation. Retaining walls and garland drains are existing all along the toe of the waste dump.
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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 2018-19.	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.	
5d	Total area fully reclaimed and rehabilitated	Proposed reclamation and rehabilitation of inactive waste dumps.	About 2.35Ha inactive dump and 0.40 ha of ultimate benches were reclaimed and rehabilitated by plantation.	Not proposed reclamation and rehailitation of mined out area in the present plan period.

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 reclamation and rehabilitation of inactive waste dump was proposed. About 2.35Ha inactive dump and 0.40 Ha of ultimate benches were reclaimed and rehabilitated by plantation.

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) .	0.40 ha of ultimate benches	0.40 ha of ultimate benches were rehabilitated by plantation by planting 800 saplings.	
6c	afforestation done (ha).	1.95 Ha in the year 2018-19.	In the year 2018-19, afforestation was done in 2.75Ha. (2.35ha waste dump and 0.4ha ultimate benches).	Total area afforested so far is 39.66Ha.
6d	No. of saplings planted during the year	3900 in the year 2018-19.	3900 in the year 2018-19. 3100 saplings on inactive dumps and 800 on ultimate benches.	
6e	Cumulative no .of plants	10400 saplings in the present plan period i.e. from 2016-17 to 2018-19.	Total plantaion made in the present plan period upto 2018-19 is 11400	So far 144259 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	18 lakhs	18 lakhs	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not proposed	Nil	No backfilling is proposed in the present plan period.
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 on backfilled area	Not proposed.	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed in the present plan period.	Nil	Proposed to create two water reservoirs on left and right side of downstream of nallah at conceptual stage.
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 and Vibration in the core and buffer zone.	Lessee is regularly monitoring, Air, Water and Noise, as per MoEF guidelines and results are within permissible limits.
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 as per the proposals given under Progressive Mine Closure Plan. Total 11400 saplings were planted in the present plan period. Lessee is regularly maintaining rearing 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.	About 4045 Cum topsoil was existing in the dump at the begainig of the plan period. In the present plan period 3901Cum of topsoil is utilized for plantation and remaing quantity is available in the top soil dump.
8b	Concurrent use or storage of topsoil	Concurrent use of top soil from dump was proposed.	3901 Cum of topsoil is utilized for plantation work.	Remaining quantity is available in the topsoil dump will be used for future plantation.
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 11400 plantation was made in the present plan period.
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, 11400 saplings were planted in the present plan period, covering inactive dumps and ultimate benches.	Total 144259 saplings have been planted so far.
8g	Survival rate	Not proposed.	85 to 90%	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 144259 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
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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 Feb-2020 and Annual returns for the year 2018-19.
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.Ambhorkar.	The details of Mining Enginner and Geologist 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.	Details of lease area utilization at the end of 2018-19 is as follows. Area under Mining-145.189 Ha, Reclaimed/Rehabilitated- 39.260Ha, Infrastructure -8.670Ha, Topsoil and subgrade dump- 4.580Ha, PMCP work-0.40Ha.	Information furnished on utilisation of lease area under different heads is found correct.	
9d	Scrutiny of Annual return on afforestation	Plantation within the lease area is shown as 3900 nos and survival rate 93%.	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 2018-19.	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	4225327.517 tonnes of ROM was produced in the year 2018-19 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-191.64/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.	Under sales and dispatch, dispatch is shown twice instead of one. Lessee has advised to correct the same.
9h	Scrutiny of Annual return on fixed assets	Value of fixed assets given in the Annual Returns is Rs-38100544. (Land-Rs-457000, Industrial-Rs-264439, Residential-Rs-4940332, Plant and Machinery including transport equipment, Rs-32438773.)	Information given on fixed assets is found correct.	

9k Scrutiny of Annual return on mining machineries Shovals, 3.2 cum capacity- 02Nos and 4.00cum capacity -01 , correct. 35 tonnes capacity dumpers-10, Grader-01, Dozer-01 and rock drillers- 03. 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