INDIAN BUREAU OF MINES
MINERALS DEVELOPMEMT AND REGULATION DIVISION

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/TCR/LST-74..MDS **Mine code : 38TMN38006**

(i) Name of the Inspecting Officer and ID No. : **M017) Matiul Islam**

(ii) Designation : Assistant Controller Mine

(iii) Accompaning mine Official with Designation : Mr.J.Ravi (AGM), Mr.K.Elansurian (AGM) & S.Durai Muru

(iv) Date of Inspection : 10/03/2023

(v) Prev.inspection date : 22/09/2022

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ADANAKURICHI&MANAKUDAYAN(**

(b) Registration NO. : **IBM/638/2011**

(c) Category : A Mechanised

(d) Type of Working : Opencast

(e) Postal address

State : TAMIL NADU
District : ARIYALUR
Village :
Taluka :
Post office :
Pin Code :
FAX No. : 044-28478676
E-mail : vssm@ramcocements.co.in
Phone : 044-28477504

(f) Police Station : DALAVOI

(g) First opening date : 24/12/1999

(h) Weekly day of rest : SUN

2. Address for correspondance : ALATHIYUR WORKS,
CEMENT NAGAR POST,ARIYALUR DISTRICT

3. (a) Lease Number : TMN1029
(b) Lease area : 89.88
(c) Period of lease : 50
(d) Date of Expiry : 30/03/2045

4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : MADRAS CEMENTS LIMITED
Auras Corporate Center Vth Floor, 98 A Dr.Radha Krishnan salai, Mylapore
CHENNAI CITY TAMIL NADU
Phone:044-28478666
FAX :044-28478676

Owner : P.R.RAMA SUBRAMANYA RAJA
AURAS CORPORATE CENTRE
VFLOOR,98A,RADAKRISHNAN R
MYLAPORE,CHENNAI CHENNAI CITY TAMIL NADU
Phone: 044-8555815
FAX : 044-830248

Agent : S SHANMUGAM
Madras Cements Ltd, TALUKA-Sendurai ARIYALUR TAMIL NADU
Phone: 04329-248305248306
FAX : 04329-248303

Mining Engineer
Name : R.Naren,Full Time
Qualification : BE(MINING)
Appointment/ Termination date : 13/05/2022

Mining Engineer
Name : J.Iyyappan,Full Time
Qualification : BE Mining
Appointment/ Termination date : 21/03/2019

Geologist
Name : R.Balamurugan,Full Time
Qualification : MSC(GEO)
Appointment/ Termination date : 31/03/2019

6. Date of approval of Mining Plan/Scheme of Mining :

Fresh under rule 22 MCR1960	06/10/1999
Mining Scheme rule 12 MCDR1988	28/08/2009
Modif.approved Mining Scheme	08/10/2012
Mining Scheme rule 12 MCDR1988	30/06/2014
MP review under 17(1) MCR 2016	05/12/2018
MP modif under 17(3) MCR 2016	29/11/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	Mine already fully explored upto G1 level.
1b	Exploration over lease area for geological axis 1 or 2	G1	G1	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Nil
1e	Balance reserve as on 01/04/20	45,18,600 tonnes	48,44,953 tonnes	Nil
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Geology & exploration of the mine were found satisfactory.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	307800 E - 1254400 N to 308100 E - 1254700 N and 308000 E - 1254900 N to 308400 E - 125500 N	307800 E - 1254400 N to 308100 E - 1254700 N and 308000 E - 1254900 N to 308400 E - 125500 N	As proposed
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Topsoil - 1, Overburden - 2, Mineral - 4	Topsoil - 1, Overburden - 2, Mineral - 4	Separate benches maintained
2c	Stripping ratio or ore to OB ratio	1 : 1.32	1 : 1.64	Violation already pointed out for deviation in production & development quantities.

2d	Quantity of topsoil generation in m3	Nil	Nil	Nil
2e	Quantity of overburden generation in m3	4,36,344 tonne	2,22,843 tonne	Violation already pointed out for deviation in development quantity
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	Development w.r.t. type of deposit was found satisfactory.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2	2	As proposed
3b	Quantity of ROM mineral production proposed	5,91,458 tonne	2,44,398.64 tonne	Violation already pointed out for deviation in production quantity.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	As proposed
3d	Quantity of mineral reject generation	Nil	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	Nil
3f	Quantity of sub grade mineral generation.	Nil	Nil	Nil
3g	Grade of sub grade mineral generation	NA	NA	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Nil

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Nil	Nil	Non-conventional mining without drilling & blasting proposed & carried out.
3k	Provision of mining machineries in mineral benches	Surface Miner-1, Dumper-3, Shovel-2, Dozer-1, Tipper-9, Water Tanker-1,	Surface Miner-1, Dumper-3, Shovel-2, Dozer-1, Tipper-9, Water Tanker-1,	As proposed
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height - 5m, Width - 6m	Height - 5m, Width - 6m	Suitable
3m	Total area covered under excavation/pits	38.315 Ha	38.315 Ha	-do-
3n	Ore to OB ratio for the pit/mine during the year.	1 : 1.32	1 : 1.64	Violation already pointed out for deviations in production & development quantities.
3o	Total area put in use under different heads at the end of year	Covered under current (O/C) Workings - 38.315 Reclaimed/ Rehabilitated - 13.845 Occupied by plant, buildings, & roads - 9.506 Other Purpose - 25.049	Covered under current (O/C) Workings - 38.315 Reclaimed/ Rehabilitated - 13.845 Occupied by plant, buildings, & roads - 9.506 Other Purpose - 25.049	As proposed

3p	Production of ROM mineral during the last five year period as applicable	2017-18 9,65,000 2018-19 8,83,000 2019-20 4,45,968 2020-21 4,45,968 2021-22 5,91,458	2017-18 3,97,243 2018-19 3,39,972 2019-20 4,43,529 2020-21 3,14,942 2021-22 2,44,399	Within limits
3q	General remarks of inspecting officers on method of mining etc.	-	-	Violation already pointed out for deviations in production & development quantities.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No topsoil or mineral rejects envisaged	No topsoil or mineral rejects generated	OB backfilled into mined out areas
4b	Location of topsoil, OB and mineral reject dumps	OB backfilling location 1254600 N - 307300 E to 1254900 N - 307600 E	OB backfilling location 1254600 N - 307300 E to 1254900 N - 307600 E	As proposed
4c	Number of dumps within lease area and outside of lease area	OB - 1	OB - 1	Old dump existing outside lease area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	NA	NA	Backfilling into mined out area being carried out
4e	Number of active and alive dumps.	Nil	Nil	Nil
4f	Number of dead dumps.	1	1	Old dump existing outside lease area
4g	Number of dumps established.	1		-do-
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Garland drains maintained	Nil

4i	Length of Retaining wall or garland drain all along dumps	Nil	800 m	Nil
4j	Number of settling ponds	No proposal	1	Nil
4k	Specific comments of inspecting officer on waste dump management	-	-	OB is currently being backfilled into mined out areas. Waste dump management was found satisfactory.

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.	Full extraction of mineral from mined out area before starting backfilling proposed	Full extraction of mineral from mined out area before starting backfilling carried out	As proposed
5b	Area under backfilling of mined out area	1254500 N - 307500 E to 1254900 N - 307800 E	1254500 N - 307500 E to 1254900 N - 307800 E	As proposed
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No topsoil removal envisaged during the year	No topsoil removed during the year	Previously stacked topsoil being utilised in afforestation.
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Backfilling & Reclamation activities were found satisfactory.

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	Submitted in time	As proposed
6b	Area available for rehabilitation (ha) .	0.52 Ha proposed for backfilling & 0.7 Ha proposed for afforestation	1.0 Ha backfilled & 0.8 Ha afforested	-do-
6c	afforestation done (ha).	0.70 Ha	0.80 Ha	-do-
6d	No. of saplings planted during the year	1,100 nos proposed	1,200 nos planted	-do-
6e	Cumulative no .of plants	-	63,337 nos saplings planted since inception	Nil
6f	Any other method of rehabilitation	Nil	Nil	Nil
6g	Cost incurred on watch and care during the year	Nil	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	0.52 Ha	1.0 Ha	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	0.52 Ha	1.0 Ha	Backfilled with OB
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Nil	Nil	Backfilling under process

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1,100 nos proposed	1,200 nos planted	As proposed
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.70 Ha	0.80 Ha	-do-
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Afforestation	Afforestation	-do-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Monitoring proposed	Periodical Monitoring carried out	All parameters within norms
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	PMCP Compliance & Progressive Closure Operations were found satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade-wise sorting proposed	Grade-wise sorting carried out	As proposed

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	-do-
7c	Different grade of mineral sorted out at mines.	High Grade, Low grade, Very low grade, Very very low grade	High Grade, Low grade, Very low grade, Very very low grade	Based on SiO2 content
7d	Any beneficiation process at mines .	Yes .Wet Beneficiation Technology is proposed.	Being carried out as per proposal.	8-10 % reduction in SiO2 achieved.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	Mineral Conservation & Beneficiation activities were found satisfactory.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No topsoil removal proposed during the year	No topsoil removed during the year	Nil
8b	Concurrent use or storage of topsoil	NA	NA	Topsoil stacked earlier utilised in afforestation
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	OB proposed to be backfilled into mined out areas	OB backfilled into mined out areas	As proposed
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB proposed to be backfilled into mined out areas	OB backfilled into mined out areas	-do-

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling proposed over mined out areas. Afforestation proposed over waste land.	Backfilling carried out over mined out areas. Afforestation carried out over waste land.	-do-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1,100 nos saplings proposed to be planted during the year	1,200 nos sapling planted during the year	62,337 nos saplings planted cumulatively
8g	Survival rate	Not specified	85 %	Nil
8h	Water sprinkling on roads to control airborne dust	Proposed	Carried out	Water Tanker deployed for water sprinkling
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	The aesthetic beauty in and around mines was found satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Given	Submitted in time	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager T.Sureshkumar Mining Engineer in charge J.Iyyappan Geologist in charge R.Balamurugan	Given in Part I, Sl 7-9	Nil

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(i) Already exploited & abandoned by opencast (O/C) mining 0.000 0.000 0.000 (ii) Covered under current (O/C) Workings 0.000 38.315 38.315 (iii) Reclaimed/Rehabilitated 0.000 13.845 13.845 (iv) Used for waste disposal 0.000 3.160 3.160 (v) Occupied by plant, buildings, residential, welfare buildings & roads 0.000 9.506 9.506 (vi) Other Purpose (Green belt and Remaining area) 0.000 25.049 25.049	Given in Part I, Sl 12	Nil
9d	Scrutiny of Annual return on afforestation	4.4 (a) Within lease area (b) Outside lease area (i) Number of trees planted during the year 1200 0 (ii) Survival rate in percentage 85.00 0	Given in Part V, Sl. 4.4	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	4.2 Opencast 4.2(B) (ii) Mineral Rejects generated with grades (tonnes) a. Quantity 0 b. Grade 0	Given in Part V, Sl. 4.2	Nil

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Category Opening stock (in tonne) Production (in tonne) Closing stock (in tonne) (a) Open Cast Workings 0.000 244398.640 0.000	Given in Part VI, Sl 1	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine Price & Cost of Production - Rs 442.90 per tonne	Given in Part VI, Sl 2 & Part VII	Nil
9h	Scrutiny of Annual return on fixed assets	Net Total Closing Balance - Rs 1,22,25,02,271 /-	Given in Part II A Capital Structure	Nil
9k	Scrutiny of Annual return on mining machineries	Type of machinery Capacity of each unit No.of units Electrical/ Non-Electrical (specify) Used in opencast/ underground (specify) SURFACE MINER 1050.000 HP 1 Non Electrical Opencast 0.000 0 0.000 0 OTHERS (NON-ELEC.) 114.000 2 Non Electrical Opencast 0.000 0	Given in Part V, Sl 5	Nil

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
MCDR17 Rule 34(1)	31/03/2023				

Date :

(**Matiul Islam**)

Indian Bureau of Mines