

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

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/ALR/LST-12.MDS

Mine code : 38TMN38039

- (i) Name of the Inspecting : **A042**) **A.S.SANJEEVA RAO**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Mr S.Ramesh GM(Mines), Mr Alagukannan, Manager
Official with
Designation
- (iv) Date of Inspection : 12/12/2022
- (v) Prev.inspection date : 10/08/2021

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ARUNGAL -67.73 HA**
- (b) **Registration NO.** : **IBM/170/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : TAMIL NADU
- District : ARIYALUR
- Village : ARUNGAL
- Taluka : ARIYALUR
- Post office : KEELAPALUR
- Pin Code : 621707
- FAX No. : 04329-250011
- E-mail : arymines@chettinadcement.co
- Phone : 04329-247727
- (f) Police Station : Ariyalur
- (g) First opening date : 01/01/2015
- (h) Weekly day of rest : SUN
2. Address for : Chettinad cement corporation limited
correspondance : ariyalut works,Kilapaluvur
Ariyalur-621707
3. (a) Lease Number : TMN1592
- (b) Lease area : 67.73
- (c) Period of lease : 20
- (d) Date of Expiry : 17/09/2032
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : CHETTINAD CEMENT CORPORATION LIMITED
 4TH FLOOR, RANI SEETHAI
 HALL BLDG 603, ANNA SALAI
 CHENNAI CITY TAMIL NADU
 Phone:044-28292727, 42149955
 FAX :044 - 28291558

Owner : Mr Mohan Muthukaruppan
 Chettinad Cement Corp.,
 Pvt., Ltd Sigappi Aachi
 Building18/3,Rukmani
 Lakshmipathi
 Road,Egmore,Chennai CHENNAI
 CITY TAMIL NADU
 Phone: 044-282922727,4
 FAX : 044-28291558

Agent : G.Raghunathsingh
 DINDIGUL TAMIL NADU
 Phone:
 FAX :

Mining Engineer

Name : P ALAGUKANNAN,Full Time
 Qualification : B E (MINING ENGINEERING)
 Appointment/ : 22/04/2022
 Termination date

Mining Engineer

Name : S.Ravichandran,Full Time
 Qualification : B.E Mining
 Appointment/ :
 Termination date

Geologist

Name : N BALAKANAN,Full Time
 Qualification : M.SE GEOLOGY
 Appointment/ : 09/09/2022
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	18/08/2009
Plan/Scheme of Mining	:	Fresh under rule 22 MCR1960	18/08/2009
	:	MP review under 17(1) MCR 2016	22/07/2019
	:	MP review under 17(1) MCR 2016	29/10/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil.	No backlog for exploration.	Nil.
1b	Exploration over lease area for geological axis 1 or 2	G-1	G-1	Entire lease area explored to G-1 Level.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil.	No proposal for the year 2021-22.	Nil.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil.	Nil.	Entire lease area has been explored by 200mx200m grid interval .22 number of drill holes were drilled for total depth of 550m.
1e	Balance reserve as on 01/04/20		1,437,408Ts (Cao->35%)	As on 01.4.2022.
1f	General remarks of inspecting officers on geology, exploration etc			Entire lease area has been explored by 200mx200m grid interval by putting 22 number of drill holes for total depth of 550m.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	No separate Proposal.	No separate Proposal for development.	Nil.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes.	One bench each in top soil and over burden.	Nil.
2c	Stripping ratio or ore to OB ratio	1:1.56	1:1.42	Due to less variation in thickness.
2d	Quantity of topsoil generation in m3	1,38,912Ts.	83125Ts.	Due to less production achievement.

2e	Quantity of overburden generation in m3	6,99,560Ts	85,365Ts	Violation of rule 11(1) of MCDR-2017 has been conveyed to lessee .
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			No separate proposal for development is envisaged.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit.	Between cross section limnes A-A'to C-C'.	Between grid lines E600-E1000 and N850-N1050
3b	Quantity of ROM mineral production proposed	350,350Ts	216,209.112Ts	Violation of rule 11(1) of MCDR-2017 has been conveyed.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	Nil.
3d	Quantity of mineral reject generation	Nil.	No generation of mineral reject.	Nil.
3e	Grade of mineral rejects generation and threshold value declared.	Nil.	Not applicable.	Nil.
3f	Quantity of sub grade mineral generation.	Nil.	No generation of sub grade mineral.	Nil.
3g	Grade of sub grade mineral generation	Nil.	Nil.	No generation of sub grade mineral.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised.	Mechanised method.	Nil.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil.	No proposal.	Nil.

3j	Provision of drilling and blasting in mineral benches	No drilling and blasting was proposed.	Combination of Rock breaker ,excavator and tipper being used.	Nil.
3k	Provision of mining machineries in mineral benches	6m height and width.	As proposed 6m bench height and width.	Nil.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	4m and 6m respectively in OB and mineral.	As proposed,4m and 6m bench height respectively in OB and mineral .	suitable for mining.
3m	Total area covered under excavation/pits	15.40hect.	14.57hect.	Nil.
3n	Ore to OB ratio for the pit/mine during the year.	1:1.56		Nil.
3o	Total area put in use under different heads at the end of year	21.55hect.	21.2hect.	Nil.
3p	Production of ROM mineral during the last five year period as applicable	2017-18 -Nil. 2018-19 -Nil. 2019-20 - 400100Ts 2020-21 - 450110Ts 2021-22 - 350350Ts	2017-18 -Nil. 2018-19 -Nil. 2019-20 -Nil. 2020-21 -209117Ts 2021-22 -216209.112Ts	Violation of rule 11(1) of MCDR-2017 has been issue for deviation in production for the year 2021-22.
3q	General remarks of inspecting officers on method of mining etc.		No drilling and blasting is carried out.	Violation of rule 11(1) of mCDR-2017 has been issue for deviation in production .

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No dumping is proposed..	Proposed for utilising back filling.	Back filling is in progress.
4b	Location of topsoil, OB and mineral reject dumps	OB dump on south western corner of ML area.	As proposed ,maintained.	Nil.

4c	Number of dumps within lease area and outside of lease area	1 dump.	1 dump.	Top soil is being used for afforestation.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable.	Waste and tp soil being used for back filling.	Nil.
4e	Number of active and alive dumps.	Nil.	Nil.	Nil.
4f	Number of dead dumps.	Nil.	Nil.	Nil.
4g	Number of dumps established.	Nil.	Nil.	Nil.
4h	Whether Retaining wall or garland drain all along dumps are there.	Nil.	Nil.	No proposal for construction of retaining wall or garland drain.
4i	Length of Retaining wall or garland drain all along dumps	Nil.	Nil.	Garlan drain made for 500m at north east and north west areas of ML boundary.
4j	Number of settling ponds	One.	One pond.	Nil.
4k	Specific comments of inspecting officer on waste dump management		Waste generated being utelising back filling.	Nil.

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.	Nil.	No back filling proposal for the year 2021-22.	No back filling was carriedout in 2021-22.
5b	Area under backfilling of mined out area	Nil.	Nil.	Nil.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Proposed.	Top soil utelised for afforestation in ML proposed area.	Nil.

5d	Total area fully reclaimed and rehabilitated	Nil.	Nil.	Nil.
5e	General remarks of inspecting officers on backfilling and reclamation etc.			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.	PMCP report for the year 2021-22 has been submitted.
6b	Area available for rehabilitation (ha) .	1.00ha	1.00ha	Nil.
6c	afforestation done (ha).	1.00ha.	1.03ha	Nil.
6d	No. of saplings planted during the year	2500saplings.	2575saplings.	Nil.
6e	Cumulative no .of plants		5075saplings.	Another 2500saplings in out side ML.
6f	Any other method of rehabilitation	Nil.	No proposal.	Nil.
6g	Cost incurred on watch and care during the year	Nil.	No specific details available.	Nil.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Nil.	No proposal.	Nil.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil.	No proposal.	Nil.

6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on on backfilled area	No proposal.	Nil.	Nil.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal.	Nil.	Nil.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal.	Nil.	Nil.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No proposal.	Nil.	Nil.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No proposal.	Nil.	Nil.
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal.	Nil.	Nil.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Monitoring.	Environment monitoring report submitted.	All parameters are within limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			There was no proposal for back filling for year 2021-22.

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Entire ROM.	Entire ROM.	No grade wise sorting.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised method	Mechanised method	Nil.
7c	Different grade of mineral sorted out at mines.	No grade wise sorting.	Entire ROM.	Nil.
7d	Any beneficiation process at mines	Not proposed.	No beneficiation process has been proposed .	Nil.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Entire ROM being consumed in captive cement plant.	Nil.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes.	Utesised for afforestation.	Nil.
8b	Concurrent use or storage of topsoil	Utesised for afforestation.	Utesised for afforestation.	Nil.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed for filling mined out area.	Used for filling mined out area.	Nil.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes.	Waste being utelised for filling mined out area.	Nil.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes.	Reclamation and rehabilitation is carried out.	Nil.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No specific details	5075 plantation +2500 plantation in non lease area.	Nil.
8g	Survival rate	80%	80%	Nil.
8h	Water sprinkling on roads to control airborne dust	proposed.	Water tanker is being engaged for the purpose.	Nil.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			GPlantation carried out on lease boundary.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted.	Monthly returns are submitted by due time. Annual return for the year 2021-22 has also submitted.	Nil.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mr.S.Ravichandran-Mining Engineer;Mr N.Balakannan-Geologist;Mr.S .Ravichandran-Manager Mines.	Accompanied during inspection of Mines.	Furnished under Part-I.

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings- 14.57ha;Reclaimed/Rehabilitated- Reclaimed/Rehabilitated- 1.72ha;Used for waste disposal- 2.73ha;Other Purpose (Plantation)- 2.03ha	Furnished under part- I.	As envisaged in approved document.
9d	Scrutiny of Annual return on afforestation	2575saplings.	Furnished under part-V.	Nil.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	85365Ts.	Furnished in part- V, of 4.2.	Nil.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	301043Ts	Furnished in part- V.	Nil.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Rs.229.13/-	Furnished in part- VII.	Nil.
9h	Scrutiny of Annual return on fixed assets	Rs.129305000/-	Furnished in part- IIA.	Nil.
9k	Scrutiny of Annual return on mining machineries	BACK HOE-1.10 CUM- 2units;TIPPER- 14CUM- 5Nos;WATER TANKER- 4000Lts- 1unit;Other Machinery-125- 1unit.	Furnished in Part-V of section 5/6/8/9.	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 11(1)	19/12/2022			

Date :

(A.S.SANJEEVA RAO)

Indian Bureau of Mines