

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

Mining Plan Modification REPORT

Chennai regional office

Mine file No : TN/PT/LST-18.MDS

Mine code : 38TMN38002

- (i) Name of the Inspecting : **D009**) **D.CHANDRA SEK HAR REDDY**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : T.Santhakumar Manager (Mines) & V.Vinodh kumar, Minin
Official with
Designation
- (iv) Date of Inspection : 21/12/2023
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ANANDAVADI**
- (b) **Registration NO.** : **IBM/7446/2011**
- (c) **Category** : A Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : TAMIL NADU
- District : ARIYALUR
- Village : ANADAVADI
- Taluka : SENDURAI
- Post office : CHINNA ANANDAVADE
- Pin Code : 621718
- FAX No. :
- E-mail : acwgeology@gmail.com, co@t:
- Phone : 044-28535461
- (f) **Police Station** : ARIYALUR
- (g) **First opening date** : 01/09/2001
- (h) **Weekly day of rest** : SUN
2. **Address for** : M/S TAMILNADU CEMENT CORPORATION LTD
correspondance
3. (a) **Lease Number** : TMN0772
- (b) **Lease area** : 110.68
- (c) **Period of lease** : 30
- (d) **Date of Expiry** : 13/07/2030
4. **Mineral worked** : LIMESTONE Main

5. Name and Address of the

Lessee : TAMILNADU CEMENT CORPORATION LTD.
735, ANNA SALAI, P.B.No:
5205, LLA BUILDING,
CHENNAI CITY TAMIL NADU
Phone:044-28525461, 28526321, 28571426
FAX :044-28523991

Owner : M/S TAMILNADU CEMENT CORPORATION LTD
PERAMBALUR TAMIL NADU
Phone:
FAX :

Agent : T Ravichandran
Ariyalur Cement Works
Ariyalur Cement Factory
(Post) Ariyalur ARIYALUR
TAMIL NADU
Phone: 9123457311
FAX :

Mining Engineer

Name : B Vinoth, Full Time
Qualification : B.E.(Mining)
Appointment/ : 13/02/2013
Termination date

Geologist

Name : S.Prasad, Full Time
Qualification : Msc (Geology)
Appointment/ : 21/07/2011
Termination date

Geologist

Name : I Dilipan, Full Time
Qualification : M.Sc.(Geo)
Appointment/ : 01/07/2020
Termination date

Manager

Name : V Karthikeyan
Qualification : B.E.(Mining)
Appointment/ : 17/04/2020
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Fresh under rule 22 MCR1960	18/10/2000
		Mining Scheme rule 12 MCDR1988	06/10/2006
		Mining Scheme rule 12 MCDR1988	25/04/2012
		Mining Scheme rule 12 MCDR1988	22/01/2016
		MP modif under 17(3) MCR 2016	24/07/2018
		MP review under 17(1) MCR 2016	30/06/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal.	16 holes drilled.	NIL
1b	Exploration over lease area for geological axis 1 or 2	G1	G1	Area already explored.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	18 lakhs	exploration done 16 holes drilled.
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	—	16.07 Million tonnes.	NIL
1f	General remarks of inspecting officers on geology, exploration etc	—	—	Sufficient exploration done.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	North pit-1 & 2.	North pit-1 & 2.	NIL
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed.	Topsoil and mineral benches maintained.	NIL
2c	Stripping ratio or ore to OB ratio	1:1.55	1:2.03	No topsoil/OB generated.
2d	Quantity of topsoil generation in m3	No proposal.	NIL	Due to less Production virgin area was not required to be excavated
2e	Quantity of overburden generation in m3	840148 Cu.M of IB proposed.	384568.96 Cu.M.	NIL

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	—	—	Due to less Production virgin area was not required to be excavated
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2	2	NIL
3b	Quantity of ROM mineral production proposed	1497989 tonnes.	482727 tonnes	Violation of Rule 11(1) pointedout.
3c	Recovery of sailable/usable mineral from ROM production	100%	Enrire ROM consumed.	NIL
3d	Quantity of mineral reject generation	641995 tonnes	464620 tonnes	Violation of Rule 11(1) pointedout.
3e	Grade of mineral rejects generation and threshold value declared.	18-20% Cao	18-20% Cao	>35% CaO.
3f	Quantity of sub grade mineral generation.	NIL	NIL	NIL
3g	Grade of sub grade mineral generation	NA	19% CaO	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	mechanical.	mechanical.	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	Non conventional method of mining.	NIL	NIL

3k	Provision of mining machineries in mineral benches	Yes, proposed.	HEM machinery deployed.	NIL
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6m height benches and width 8m proposed.	As per proposal bench height and width maintained.	NIL
3m	Total area covered under excavation/pits	50.54 Ha	22.06 Ha	Violation of Rule 11(1) pointed out.
3n	Ore to OB ratio for the pit/mine during the year.	1:1.55	1:0.90	NIL
3o	Total area put in use under different heads at the end of year	73.06 Ha	31.03 Hc.	1.Excavated area - 16.0.0Ha 2.Plantation - 2.5 Ha 3.Roads-1.5.0 4.Topsoil/OB Dump - 11.0.2
3p	Production of ROM mineral during the last five year period as applicable	2018-19 - 1125692 tonnes 2019-20 - 1503250 tonnes 2020-21 - 1501360 tonnes 2021-22 - 1498486 tonnes 2022-23 - 1497989 tonnes	2018-19 - 259919 tonnes 2019-20 - 6408 tonnes 2020-21 - 259810 tonnes 2021-22 - 400774 tonnes 2022-23 - 482727 tonnes	Violation of Rule 11(1) pointed out.
3q	General remarks of inspecting officers on method of mining etc.	—	—	Production & development on Lowerside. Violation of Rule 11(1) pointed out.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dump of Topsoil proposed	Separate Topsoil dump maintained.	NIL
4b	Location of topsoil, OB and mineral reject dumps	11.1886283 N 79.1868651 E	As per proposal.	NIL

4c	Number of dumps within lease area and outside of lease area	2	2	NIL
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside of Ultimate Pit Limit	Outside of Ultimate Pit Limit	NIL
4e	Number of active and alive dumps.	2	2	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.	Construction of Garland Drainage around the dump	Garland drainage built all along the dump.	NIL
4i	Length of Retaining wall or garland drain all along dumps	Not Mentioned	60 m	NIL
4j	Number of settling ponds	NIL	NIL	NIL
4k	Specific comments of inspecting officer on waste dump management	—	—	Mine is in devlopimng stage,dumps not consolidated.

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 proposal.	NIL	Mine workings are in progress.
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)	NIL	NIL	Topsoil removed already utilised for plantation.

5d	Total area fully reclaimed and rehabilitated	NIL	NIL	Mineral not extracted fully.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	—	—	Mining operations not matured for reclamation and rehabilitation.

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.	NIL
6b	Area available for rehabilitation (ha) .	NIL	NIL	Mining operations in advancing stage.
6c	afforestation done (ha).	1.60 Hc ,1800 saplings	2000 saplings planted.	NIL
6d	No. of saplings planted during the year	1600	2000	NIL
6e	Cumulative no .of plants	—	5625 no's.	NIL
6f	Any other method of rehabilitation	NIL	NIL	NIL
6g	Cost incurred on watch and care during the year	Rs. 90000	1.83 lakhs.	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NIL	NIL	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NIL	NIL

6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	NIL	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL	Mine workings are in a developing stage.
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	NIL	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	NIL	NIL	NIL
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	NIL	NIL	NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed.	Quarterly monitoring done.	NIL
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	—	—	The production and development are on low side. Violation pointed out.

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	No grade wise sorting proposed.	Entire ROM sent to cement plant.	NIL
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	NIL	NIL	Entire ROM consumed.
7c	Different grade of mineral sorted out at mines.	Cement grade	Cement grade.	>CaO-34%
7d	Any beneficiation process at mines	NIL	NIL	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	—	—	Entire ROM used for cement making at captive plant.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes proposed.	Topsoil dumped and utilised for plantation along boundary.	NIL
8b	Concurrent use or storage of topsoil	Yes.	Topsoil utilised for plantation purpose.	NIL
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Waste, reject dumps proposed.	As per proposal dumps are maintained.	NIL
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling proposed.	Due lacking of production&devlopment backfilling not done as per proposal.	Violation of Rule 11(1) pointed out.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NIL	NIL	Mineral not exhausted.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1800 saplings over 1.60 Hc.	2000 saplings over 2 Hc area.	NIL
8g	Survival rate	NA	70%	NIL
8h	Water sprinkling on roads to control airborne dust	Proposed.	Water srinking done.	NIL
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	—	—	Satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted.	Monthly returns and Annual returns for the year 2022-23 submitted.	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Details given.	Manager - T.santhakumar Mining engineer - B.Vinoth Geologist - I.Dilipan.	NIL
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details given.	Already exploited and abondend - 5.77 Hc. Current workings - 12 Hc. reclaimed & rehabilitated - 2.15 Hc. Waste disposal - 9.55 Hc. Plant, building, roads etc. - 4.35 Hc. Others - 76.865 Hc.	NIL

9d	Scrutiny of Annual return on afforestation	Details given. 3125	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Details given. 464620 tonnes.	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Details given. 482727.16 tonnes.	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Details given. Cost of production Rs.418.96 .	NIL.
9h	Scrutiny of Annual return on fixed assets	Details given. Rs.10004119	Combinedly for group mines.
9k	Scrutiny of Annual return on mining machineries	Details given. 1. SHOVEL - 0.9 CUM 2. ROCK BREAKER - 30.00 TONNES 3. TIPPER - 25.00 CUM 4. DOZER - 90.00 HP 5. WATER TANKER - 130 KL 6. Sieve Bucket - 0.9 CUM	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)	29/01/2024	26/03/2024				
MCDR17	Rule 33	29/01/2024	26/03/2024				

Date :

(D.CHANDRA SEKHAR REDDY)

Indian Bureau of Mines