

**INDIAN BUREAU OF MINES
MINERAL DEVELOPMENT AND REGULATION DIVISION**

MCDR INSPECTION REPORT

Chennai Regional Office

Mine file No. TN/ALR/LST-43.MDS		Mine code 38TMN24043	
(i)	Name of the inspecting officer, designation	Shri Matiul Islam, Asst. Controller of Mines	
(ii)	Date of inspection:	09.08.2024	
(iii)	Accompanied mine official and designation	N.JAYA BHARATA REDDY, GENERAL MANAGER(MINES)	
Part I - General Information			
1	Name of the Mine	Pudupalayam Limestone Mine	
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	29.29.5 Ha (Non forest Land)	
3	Mine code	38TMN24043	
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/613/2011	
5	Name of the lessee, Address, phone, email and fax number	M/s. The India Cements Limited, Coromandal Towers, 93, Santhome High Road, Karapagam Avenue, Raja Annamalai Puram, Chennai - 600 028 Phone No: 044-28572100 Fax No: 04329 248248 Email id: palanikumaresan.m@indiacements.co.in	
6	Village	Pudupalayam	
7	Taluka/Mandal	Ariyalur	
8	District	Ariyalur	
9	Pin code	621704	
10	State	TamilNadu	
11	Post office	Reddipalayam	
12	Nearest police station	Reddiapalayam	
13	Nearest Railway station	Ariyalur	
14	Date of opening of Mine	02-08-2004	
15	Weekly day of rest	Scattered	
16	Period of Lease	50 Years (as per MMDR Amendment)	
17	Lease Expiry	08-02-2039	
18	Name of the Nominated Owner with Address, phone, email, fax number and Date of appointment	V.M.Mohan The India Cements Limited Coromandal Towers, 93,Santhome High Road, Karpagam Avenue,Chennai-600 028 044-28572100 Fax-044-28526311 mines@indiacements.co.in Date of appointment:01.11.2023	
		T.Balasubramanian The India Cements Limited	

19	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-04329-248221 Email id: balasubramanian.t@indiacements.co.in Fax:04329-248248 Date of appointment:21.02.2013		
20	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	N.Jaya Bharata Reddy The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-04329-248206/9942994775 Email id: jayabharatareddy.n@indiacements.co.in Fax:04329-248248 Date of appointment:11.08.2023		
21	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	N.Jaya Bharata Reddy B.E(Mining) ,FCC& Experience-29 Years The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-04329-248206/9942994775 Email id: jayabharatareddy.n@indiacements.co.in Fax:04329-248248 Date of appointment:11.08.2023		
22	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	S. Nirmal Kalam M.Sc. (Geology) - 6 years The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-04329-248206/9942994775 Date of appointment:10.05.2023		
23	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	TN/ALR/LST/MMP-2096.MDS ,Dated:27/07/2023		
24	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	NA		
25	Mineral(s) granted in lease and proved for mining	Limestone		
26	Method of Mining(Open cast,Underground)	Opencast		
27	Category (Fully Mechanised, Others or Manual)	"A" category Fully Mechanised		
28	Captive/Non Captive	Captive Purpose		
EXPLORATION				
SL.NO	ITEMS	PROPOSALS	ACTUAL WORK	REMARKS
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	G1	G1	38 Exploration borehole drilled with total meterage of 481.06 m.
1c	Expenditure in lakh rupees during the year	Not applicable	Not applicable	Exploration carried out by India cements team.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Not required
1e	Balance reserve as on 01/04/2024	0.00 Million tonnes	0.00 Million tonnes	Limestone Exhausted
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Mineral is fully exhausted in the lease and the lessee is currently implementing FMCP.
DEVELOPMENT				

2a	Location of development w.r.t.lease area	Proposed area of working between section line 297500E-298000E and 1225700N -1226200N. RL 50.0 to 44.0 m	Proposed area of working between section line 297500E-298000E and 1225700N -1226200N. RL 50.0 to 44.0 m	Within proposed area
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes , one topsoil bench, one overburden bench, two ore benches.	Yes , one topsoil bench, one overburden bench, two ore benches.	Separate bench for topsoil and overburden are being maintained.
2c	Stripping ratio or ore to OB ratio	1:0.18	1:0.21	
2d	Quantity of topsoil generation in m3	9223	10449.63	Lithological variation of the formation
2e	Quantity of overburden generation in m3	4580	4899.58	Lithological variation of the formation
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	Development of pit w.r.t. type of deposit was found satisfactory.

EXPLOITATION

3a	Number of pit proposed for production	One , 450m*480m* 16m	One , 450m*480m* 16m	Only one pit, as proposed.
3b	Quantity of ROM mineral production proposed	146388 Ts (124040 from pit + 22384 from dump working)	131066.84 Ts (108682.98 t from pit + 22383.86 t from dump working)	Approximately 10% Deviation due to lithological variation of the formation
3c	Recovery of sailable/usable mineral from ROM production	117139 Ts (99232 from pit + 17907 from dump working)	117130.04 Ts	As per proposal
3d	Quantity of mineral reject generation	24808 Ts	13936.8 Ts	Deviation due to lithological variation of the formation. Violation not pointed.
3e	Grade of mineral rejects generation and threshold value declared.	SiO2 >18.0%	SiO2 >18.0%	Nil
3f	Quantity of sub grade mineral generation.	Nil	Nil	Nil
3g	Grade of sub grade mineral generation.	Not applicable	Not applicable	Not applicable
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical Method	Mechanical Method	As per plan
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No	No	Beneficiation study was done in Initial period.
3j	Provision of drilling and blasting in mineral benches	No	No	Drilling and blasting not carried out.
3k	Provision of mining machineries in mineral benches	Shovel /Rock breaker-1,, Tipper-2,	Shovel /Rock breaker-1, Tipper-2	As per proposal
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Top soil-5m, Overburden-5m, Limestone-5m	Top soil-5m, Overburden-5m, Limestone-5m	Height of the benches are 5.0m
3m	Total area covered under excavation/pits	18.10.0 ha	18.10.0 ha	As proposed
3n	Ore to OB ratio for the pit/mine during the year.	1:0.19	1:0.21	Marginal deviation
3o	Production of ROM mineral during the last five year period as applicable	2019-20=187020 Ts 2020-21=104448 Ts 2021-22=122588 Ts 2022-23=98204 Ts 2023-24=146388 Ts	2019-20= 64216.46 Ts 2020-21= 0.00 Ts 2021-22=17250.84 Ts 2022-23=66860.14 Ts 2023-24=131066.84 Ts	Within limits
3p	Area used in diifferent purpose	Area under mining-18.10.0 Overburden dump- 4.11.5, Mineral storage - 0.00.0 Roads - 0.15.0, Protective - 1.72.0 Greenbelt - 1.25.0	Area under mining-18.10.0, Overburden dump- 4.11.5, Mineral storage - 0.00.0 Roads - 0.15.0, Protective - 1.85.0 Greenbelt - 1.25.0	Within limits
3q	General remarks of inspecting officers on method of mining etc.	-	-	Method of mining was found satisfactory.

SOLID WASTE MANAGEMENT-DUMPING

4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Backfilling of OB & Rejects proposed. Top soil proposed to be utilised over backfilled area.	OB & Rejects backfilled & Top Soil spread over backfilled area	As proposed
4b	Location of topsoil, OB and mineral reject dumps	Waste Dump: South western side of ML	Waste Dump: South western side of ML	As proposed
4c	Number of dumps within lease area and outside of lease area	One Dump within ML	One Dump within ML	Existing dump
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side of UPL	Out side of UPL	Stablised with plantations.
4e	Number of active and alive dumps.	Nil	Nil	As per proposal
4f	Number of dead dumps.	One	One	Plantation completed.
4g	Number of dumps established.	One	One	Stablised with plantations.
4h	Whether Retaining wall or garland drain all along dumps are there.	450 m retaining wall & 434 m garland drain proposed	450 m retaining wall & 434 m garland drain made	As proposed
4i	Length of Retaining wall or garland drain all along dumps	450 m retaining wall & 434 m garland drain proposed	450 m retaining wall & 434 m garland drain made	As proposed
4j	Number of settling ponds	No proposal	NA	2 settling ponds already existing
4k	Specific comments of inspecting officer on waste dump management	-	-	Waste dump management was found satisfactory
SOLID WASTE MANAGEMENT-BACKFILLING				
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Full extraction of mineral proposed before backfilling	Mineral fully extracted before backfilling	As proposed
5b	Area under backfilling of mined out area	0.38.0 Ha	0.20.0 Ha	Less mineral reject generation due to lithological variations led to shortfall in backfilling area. No violation pointed.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Yes	Yes	Top soil spread over backfilled area.
5d	Total area fully reclaimed and rehabilitated	0.20.0 Ha	0.20.0 Ha	Afforested
5e	General remarks of inspecting officers on backfilling and reclamation etc	-	-	Backfilling & reclamation was found satisfactory.
PROGRESSIVE MINE CLOSURE PLAN				
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Nil	Yes	Submitted along with AR
6b	Area available for rehabilitation (ha)	0.20.0 Ha	0.20.0 Ha	As proposed
6c	Afforestation done (ha).	0.20.0 Ha	0.20.0 Ha	As proposed
6d	No. of saplings planted during the year	150 nos	150Nos	As proposed
6e	Cumulative no. of plants	7700 Nos.	7700 Nos	As proposed
6f	Any other method of rehabilitation	Nil	Nil	Nil
6g	Cost incurred on watch and care during the year	Rs 0.21 Lakhs	Rs 2.00 Lakhs	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D)	195m*19m*7.0m	165m*20m*7.0m	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	195m*19m*7.0m	100m*20m*7m	Deviation due to lithological variation of the formation.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	150 nos	150 Nos	As proposed
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Water reservoir proposed during FMCP stage	Water reservoir formation commenced	As proposed

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil	Nil
6m	Compliance on reclamation of waste land within lease (i)Deforestation	NA	NA	No area available
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA	NA	No area available
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA	No area available
6p	Compliance of environmental monitoring (core zone and buffer zone)	Nil	Periodic monitoring carried out	As proposed
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	PMCP compliance & progressive closure operations were found satisfactory.
MINERAL CONSERVATION				
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Yes	Yes	Nil
7b	Method of gradewise mineral sorting i.e. manual or mechanical.	Mechanical Method	Mechanical Method	Nil
7c	Different grade of mineral sorted out at mines.	Lumps and fines	Lumps and fines	
7d	Any beneficiation process at mines	Not applicable	Not applicable	Not applicable
7e	General remarks of inspecting officer on Mineral Conservation & beneficiation issues	-	-	No issues were observed with mineral conservation or beneficiation
ENVIRONMENT				
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal & utilization proposed	Separately removed & utilized	As proposed
8b	Concurrent use or storage of topsoil	Concurrent usage proposed	Concurrently used	As proposed
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 22)	Concurrent usage is proposed	Concurrent used for back filling	As proposed
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes	Yes	As proposed
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Yes	As proposed
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	7550+150	7550+150	As proposed
8g	Survival rate	>90%	>90%	As proposed
8h	Water sprinkling on roads to control airborne dust	Yes	Water sprinkler deployed	As proposed
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	Aesthetic beauty in and around mines area was found satisfactory.
COMPLIANCE UNDER RULE-45				
9a	Status of submission of Monthly and Annual returns	Proposal	Actual	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mine Manager:N.Jaya Bharata Reddy, Mining Engineer:N.Jaya Bharata Reddy & Geologist:S.Nirmal Kallam	Provided in part-I	Nil

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(i) Already Exploited and abandoned by Opencast mining = 14.140 (ii) Covered under (O-C) workings = 0.000 (iii) Reclaimed-rehabilitated = 3.960 (iv) Used for waste disposal = 4.115 (v) Occupied by plant ,buildings, residential, welfare building and roads = 0.200 (vi) Used for any other purpose (Specify) Green belt & Peripheral bund = 3.100 (vii) work done under progressive mine closure plan during the year = 0.000	Provided in part-I, Sl.No-12 (i) Already Exploited and abandoned by Opencast mining = 14.140 (ii) Covered under (O-C) workings = 0.000 (iii) Reclaimed-rehabilitated = 3.960 (iv) Used for waste disposal = 4.115 (v) Occupied by plant ,buildings, residential, welfare building and roads = 0.200 (vi) Used for any other purpose (Specify) Green belt & Peripheral bund = 3.100 (vii) work done under progressive mine closure plan during the year = 0.000	Nil
9d	Scrutiny of Annual return on afforestation	Area=0.020.0 Ha, Nos-150	Area=0.020.0 Ha, Nos-150, Provided in part-V, Para-5	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	29249 Ts	Actual=13936.80 Ts ,Provided in part-V, of 3	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM=146388 Ts	Actual ROM=131066.84 Provided in part-VI, Para-2	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex.Mine Price=Rs.212.00, Production cost=Rs=212.00	Provided in part VI-3(ii) and Part-VII. Ex.Mine Price=Rs.212.00 Production Cost=Rs.212.00	Nil
9h	Scrutiny of Annual return on fixed assets	Gross Fixed Assets: Rs 1,29,21,73,040	Given in Part II A Capital Structure	Nil
9i	Scrutiny of Annual return on mining machineries	Shovel /Rock breaker-1,, Tipper-2,	Mentioned in part -V, Sec-6	Nil

Details of violations observed during current inspection and compliance position of violations pointed out:-

Violation observed		Show cause position		
Rule	Issued on	Compliance on	Issued on	Compliance on
Date:				(Matiul Islam)
				Indian Bureau of Mines