INDIAN BUREAU OF MINES MINERAL DEVELOPMENT AND REGULATION DIVISION

MCDR INSPECTION REPORT

	C	hennai Regional Office
Mine fi	ile No. TN/PBR/LST-22.MDS	Mine code - 38TMN24054
(i)	Name of the inspecting officer &	KUMERESH A
()	Designation	Senior Assistant Controller of Mines
(ii)	Accompanied mine official and	Shri. N.Jaya Bharata Reddy, General Manager(Mines)
()	designation	Shri K.Rathinavel,Sr.Manager(Mines)
(iii)	Date of inspection	26.11.2024
()		T-I: General Information
1.	Mine Name	Adanakurichi Limestone Mine
(h)	Designation Number	IBM/613/2011
(b)	Registration Number	
(c)	Category	A
(d)	Type of Working	Opencast
	Postal Address	V.M.Mohan
	State	M/s. The India Cements Limited,
	District	Coromandal Towers,
	Village	93, Santhome High Road, Karapagam Avenue,
(e)	Taluka	Raja Annamalai Puram, Chennai - 600 028 Phone No: 044-28572100
	Post Office	
	Pin Code	Fax No: 04329 248248
	FAX No.	Email id: palanikumaresan.m@indiacements.co.in
	E-mail	
	Phone	
(f)	Police Station	Dalavoi
(g)	First opening date	01.07.2006
(h)	Weekly day of rest	Scattered
		V.M.Mohan
		M/s. The India Cements Limited,
_		Coromandal Towers,
2.	Address for correspondence	93, Santhome High Road, Karapagam Avenue,
	· · · · · · · · · · · · · · · · · · ·	Raja Annamalai Puram, Chennai - 600 028
		Phone No: 044-28572100
		Fax No: 04329 248248
2		Email id: palanikumaresan.m@indiacements.co.in
3.		TMN0992
	Lease Number	
	Bease Namber	
		160.73 Ha
	Lease Area	
		20
		30 years
	Period of lease	
	Date of expiry	11.05.2036
	Date of expiry	

4.	Mineral worked	Limestone
5.	Mineral Worked	
5.	Name and address of the	
	Lessee:	
	Ecocci.	M/s. The Indi Cements limited
	Owner:	
		V.M.Mohan 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
	Agent:	Email id: palanikumaresan.m@indiacements.co.in
		Shri. T.Balasubramanian Mine Agent The India Cements Limited, Dalavoi Works, Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone - 04329-249240 Fax:04329-248248 Email id: balasubramanian.t@indiacements.co.inDate of Appointment - 21.02.2013
	Manager:	
		K.Rathinavel The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-04329-248206/9942994637 Email id: rathinavel.k@indiacements.co.in Fax:04329-248248
	Engineer:	Date of appointment:01.07.2024
		S.Anand Kumar B.E(Mining) ,FCC& Experience-16 Years The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-9942994653 Email id: anandkumar.s@indiacements.co.in Fax:04329-248248 Date of appointment:20-12-2021
	Geologist:	Geologist: I.Dilipan M.Sc(Geology) ,& Experience-7 Years The India Cements Limited

		Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-9843596475 Date of appointment:16.10.2023
	Date of Approval of Mining Plan/Modified Mining Plan with five - year period and specific condition in approval letter, if any.	No.TN/ALR/LST/ROMP-1607.MDS DATED-11.11.2020
6	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five – year period and specific condition in approval letter, if any.	Fresh under Rule 22 MCR 1960: 17.02.2005 Mining Scheme rule 12 MCDR 1988: 06.01.2012 Mining Scheme rule 12 MCDR 1988: 22.03.2016 Mp review under 17(1) MCR 2016: 11.11.2020

PART-II: OBSERVATION / COMMENTS OF INSPECTING OFFICER

EXPLORATION

S. No.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	Nil	Nil	The total mining lease area has already been explored and the requirement of G1 level has been met.
1b	Exploration over lease area for Geological axis 1 or 2.	G1	G1	116 Exploration boreholes were drilled with total meterage of 5917.75m with 100m*100m grid interval, during the year 2012-13.
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Not applicable	Not applicable	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Nil
1e	Balance reserves as on 01.04.2024 (111 Category)	31.514 Million tonnes	31.571 Million tonnes	More reserves balance than proposed due to less depletion than proposed in past.
1f	General comments of inspecting officer on geology, exploration etc.	-	-	Geology & Exploration of the mine were found satisfactory.

DEVELOPMENT

S. No.	Item	Proposals	Actual Work	Remarks
2a	Location of development w.r.t. lease area	Proposed area of working between section line ML- 600N to 1400N and 900E to 1200E. RL 12.0m to 5.5 m	Auctual area of working between section line ML-500N to 1200N and 800E to 1200E. RL 7.0m to 3.2 m	Within the proposed area
2b	Separate benches in topsoil, overburden and minerals (Rule 13 of MCDR-2017)	Yes, One Top Soil Bench, five overburden bench, Three ore benches. Yes, One Top Soil Bench, five overburden bench, Three ore benches.		As per proposal
2c	Stripping ratio or ore to OB ratio	`1:4.73	`1:2.61	Lithological variation of the formation and mine working in opened up area.
2d	Quantity of topsoil generation in m3	0	11812.5	Mine working on previous year proposed area (backlog area)
2e	Quantity of overburden generation in m3	590269	291947.88	Lithological variation of the formation and mine working in opened up area and topsoil removed instead of overburden
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc.			

EXPLOITATION

S. No.	Item	Proposals	Actual Work	Remarks
3a	Number of Pit proposed for production	One , 720m*700m* 56m	One , 600m*670m* 54m	Only one pit, as proposed.
3b	Quantity of ROM mineral production proposed	346648 Ts	296786.98 Ts	Nil
3c	Recovery of salable/usable mineral from ROM production	311983 Ts (90% from ROM)	286362.00 Ts (96.5%)	Nil
3d	Quantity of mineral reject generation	34665 Ts/ 14814 m3 (10%)	10424.98 Ts/ 4455.12 m3(3.5%)	Nil
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	NA
3h	Manual / Mechanized method adopted for segregating from ROM	Mechanical Method	Mechanical Method	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No	No	NA
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting also Proposed	Minimum drilling and blasting is being carried out.	Nil
3k	Provision of mining machineries in mineral benches	Surface Miner- 1,Shovel-1,Dozer- 1,Tipper-15, and Water tanker-1 Pump (Elec)-3	Surface Miner-1,Shovel- 1,Dozer-1,Tipper-15, and Water tanker-1 Pump (Elec)-3	As per proposal
31	Whether height of benches in overburden and mineral suitable for method of mining proposed in RoMP	Overburden-5m, Limestone-5m	Overburden-5m, Limestone-5m	Suitable for method of mining
3m	Total area covered under excavation/pits	74.77.0 ha	64.80.0 ha	Within proposed limits
3n	Ore to OB ratio for the pit/mine during the year.	`1:4.73	`1:2.61	Within proposed limits
30	Total area put in use under different heads at the end of year	Area under mining- 74.77.0, Top soil-1.60.0, Overburden-3.74.0, Infrastructure-0.10.0, Roads-2.20.0, Low grade dump- 6.31.0, Mineral Storage-0.65.0	Area under mining- 64.80.0, Top soil-1.60.0, Overburden-3.74.0, Infrastructure-0.10.0, Roads-2.20.0, Low grade dump-6.31.0 Mineral Storage-1.95.0,	Within proposed limits
3р	Production of ROM mineral during the last five-year period as	2019-20=2431705 Ts 2020-21=1961552 Ts	2019-20=277800.60 Ts 2020-21=233410.99 Ts	Less limestone production due

	applicable	2021-22=346437 Ts	2021-22=225116.42 Ts	to less plant
		2022-23=346343 Ts	2022-23=292699.56 Ts	requirement
		2023-24=346648 Ts	2023-24=296786.98 Ts	
		346648 Ts	296786.98 Ts	
		311983 Ts (90% from ROM)	286362.00 Ts (96.5%)	
		34665 Ts/ 14814 m3 (10%)	10424.98 Ts/ 4455.12 m3(3.5%)	
		SiO2 >18.0%	SiO2 >18.0%	
3q	General remarks of inspecting officers on method of mining etc.	-	-	The method of mining was found satisfactory.

SOLID WASTE MANAGEMENT-DUMPING

S. No.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 36,37)	Back filling proposed	Back filling carried out	Nil
4b	Location of topsoil, OB and mineral reject dumps	Planned for Back filling (500N to 1100N & 800E to 1000E)	Utilized for Back filling (500N to 1000N & 700E to 900E)	Nil
4c	Number of dumps within lease area and outside of lease area	4+1	4+1	One dump outside of ML
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side of UPL	Out side of UPL	Nil
4e	Number of active and alive dumps.	Active -Nil	Active -Nil	Nil
4f	Number of dead dumps.	4	4	
4g	Number of dumps established.	4	4	Stablised with plantations.
4h	Whether Retaining wall or garland drain all along dumps are there.	Nil	Nil	Garland drain is already made for 2250m.
4i	Length of Retaining wall or garland drain all along dumps	No proposal	No proposal	Earthen bund existed.
4j	Number of settling ponds	No proposal	No proposal	Exists 3 nos on western side and eastern side
4k	Specific comments of inspecting officer on waste dump management			Waste dump management was found satisfactory.

SOLID WASTE MANAGEMENT-BACKFILLING

S. No.	Item	Proposals	Actual Work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Back filled proposed in mined out area	Back filling carried out	
5b	Area under backfilling of mined out area	1.50.0 Ha	1.02.0 На	Due to less generation of waste
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No proposal	Topsoils area concurently used	
5d	Total area fully reclaimed and rehabilitated	1.50.0 Ha	1.50.0 На	
5e	General remarks of inspecting officers on backfilling and reclamation etc			

PROGRESSIVE MINE CLOSURE PLAN

S. No.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 26 (2)	Yes	Yes, submitted to IBM	Nil
6b	Area available for rehabilitation (ha).	1.50.0 Ha	1.02.0 На	
6c	Afforestation done (ha).	1.50.0 Ha	1.50.0 Ha	
6d	No. of saplings planted during the year	1000 Nos	1000 Nos	
6e	Cumulative no. of plants	27831 Nos.	27831 Nos	
6f	Any other method of rehabilitation	Backfilling and afforestation	Backfilling and afforestation	
6g	Cost incurred on watch and care during the year	Rs1.90 Lakhs	Rs1.90 Lakhs	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D)	476m*32m*52m	360m*120m*22m	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	1510338 Ts	759194.68 Ts	Due to less generation of waste
6 <u>j</u>	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation backfilled area	1000 nos (1.50.0 Ha)	1000 Nos (1.50.0 На)	As per proposal
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA	Nil
61	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not applicable	Not applicable	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NA	NA	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA	NA	Nil
60	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA	Nil
6р	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Complied as per proposal on season wise.	As proposed in Review of mining plan.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP Compliance & progressive closure operations were found satisfactory.

MINERAL CONSERVATION

S. No.	Item	Proposals	Actual Work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Yes, Size based sorted.	Yes	Nil
7b	Method of grade wise 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	-	-	-

ENVIRONMENT

S. No.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separately removed & utilized	Separately removed & utilized	Nil
8b	Concurrent use or storage of topsoil	Concurrent usage is proposed	Concurrently used	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Concurrent usage is proposed	Concurrent used for back filling	Nil
8d	Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use	Yes	Yes	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Yes	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	26831+1000=278 31	26831+1000=2783 1	Nil
8g	Survival rate	>90%	>90%	Nil
8h	Water sprinkling on roads to control airborne dust	Yes	Water tanker deployed	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The aesthetic beauty in and around mines area was found satisfactory.

COMPLIANCE UNDER RULE-45

S. No.	Item	Proposals	Actual Work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted	Submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mine Manager:R.Balamurugan (01.08.2023), Mining Engineer:S.Anand Kumar (20.12.2021) & Provided in part-I Geologist:I.Dilipan (16.10.2023)		Presently, Mine Manager:K.Rathinavel (01.07.2024), Mining Engineer:K.Rathinavel (01.07.2024) & Geologist:I.Dilipan (16.10.2023)
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 = 5.50.0 Ha (ii) Covered under (O-C) workings = 48.74.0 Ha (iii) Reclaimed-rehabilated = 20.53.0 Ha (iv) Used for waste disposal = 3.74.0 Ha (v) Ocuupied by plant ,buildings, residential, welfare building and roads = 2.30.0 Ha (vi) Used for any other purpose (Specify) Green belt & Peripheral bund = 19.55.0 Ha (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 = 4.00.0 Ha (ii) Covered under (O-C) workings = 44.40.0 Ha (iii) Reclaimed-rehabilated = 16.40.0 Ha (iv) Used for waste disposal = 3.74.0 Ha (v) Ocuupied by plant ,buildings, residential, welfare building and roads = 2.30.0 Ha (vi) Used for any other purpose (Specify) Green belt & Peripheral bund = 19.55.0 Ha (vii) work done under progressive mine closure plan during the year = 0.000	
9d	Scrutiny of Annual return on afforestation	Area=1.50.0 Ha, Nos-1000	Nos-1000 Provided in part-V, Para-5	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	34665 Ts	Actual=10424.98 Ts ,Provided in part-V, of 3	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM=346648 Ts	Actual ROM=296786.98 Provided in part-VI, Para-2	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex.Mine Price=Rs.352.75 Production cost=Rs=352.75	Provided in part VI-3(ii) and Part-VII. Ex.Mine Price=Rs.352.75 Production Cost=Rs.352.75	
9h	Scrutiny of Annual return on fixed assets	1292173040	1292173040	Provided in part -II (A).Jointly for 7 leases.
9i	Scrutiny of Annual return on mining machineries	Surface Miner-1,Shovel-1,Dozer- 1,Tipper-15, and Water tanker-1 Pump (Elec)-3	Mentioned in part -V, Sec- 5/6/8/9.	

Details of violations observed during current inspection and compliance position of violations pointed out						
Violation observed				Show cause position		
Rule No.	Issued on	Compliance on	Rule No.	Issued on	Compliance on	
		_	•			
11(1)	04.12.2024	10.01.2025	11(1)	23.1.2025		

Date:	KUMERESH A
	SrAsst Controller of Mines
	Indian Bureau of Mines