

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

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/PBR/LST-15.MDS

Mine code : 38TMN24040

- (i) Name of the Inspecting : **J103**) **V. Jaya Krishna Babu**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : **D.C.REDDY, AME AND G.R.MAHESH, SR.DGM (MINES)**
Official with
Designation
- (iv) Date of Inspection : 15/11/2018
- (v) Prev.inspection date : 09/11/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **REDDIPALAYAM(63.60HA)**
- (b) **Registration NO.** : **IBM/638/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : TAMIL NADU
- District : ARIYALUR
- Village : REDDIPALAYAM
- Taluka : ARIYALUR
- Post office : REDDIPALAYAM
- Pin Code : 621714
- FAX No. : 04329 - 226005
- E-mail : magesh@ramcocements.co.in
- Phone : 044-28478666 , 28478656, 0
- (f) Police Station : vikramangalam
- (g) First opening date : 05/10/2001
- (h) Weekly day of rest : SUN
2. Address for : AURAS CORPORATE CENTRE, V FLOOR
correspondance : 98-A, RADHAKRISHNAN ROAD
MYLAPORE CHENNAI- 4
3. (a) Lease Number : TMN1031
- (b) Lease area : 63.6
- (c) Period of lease : 30
- (d) Date of Expiry : 22/07/2034
4. Mineral worked : LIMESTONE Associated

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.VENKETRAMA RAJA
 98-A,AURAS CORPORATE CENTRE
 RADHAKRISHNAN
 SALAI,MYLAPORE CHENNAI
 CHENNAI CITY TAMIL NADU
 Phone:
 FAX :

Agent : C.RAVICHANDRAN
 98-A, AURAS CORPORATE
 CENTRE R.K.SALAI,MYLAPORE
 CHENNAI CHENNAI CITY TAMIL
 NADU
 Phone:
 FAX :

Mining Engineer

Name : KALLURI SURRENDRA,Full Time
 Qualification : BE(MINING)
 Appointment/ : 18/07/2018
 Termination date

Geologist

Name : V.MOHAN,Full Time
 Qualification : MSC (GEOLOGY)
 Appointment/ : 01/10/2016
 Termination date

Manager

Name : G.MAGESH
 Qualification : BE (MINING)
 Appointment/ : 11/01/2008
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Fresh under rule 22 MCR1960 16/05/2005
 Modif.of approved Mining Plan 01/09/2006
 Mining Scheme rule 12 MCDR1988 10/08/2011
 Mining Scheme rule 12 MCDR1988 14/05/2015

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|--|-----------------------------------|--|
| 1a | Backlog of previous year | NIL.ENTIRE AREA ALREAY EXPLORED DURING MINING PLAN PERIOD BY WAY OF DRILLING BORE HOLES. | NIL | |
| 1b | Exploration over lease area for geological axis 1 or 2 | NO PROPOSAL | AREA ALREADY EXPLORED FOR AXIS-1. | |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | NIL | NIL | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | NIL | ENTIRE ML AREA ALREADY EXPLORED | |
| 1e | Balance reserve as on 01/04/20 | 13361039 (111) | 14650055 (111) | DUE TO LOW OFF TAKE OF THE CAPTIVE CEMENT PLANT . |
| 1f | General remarks of inspecting officers on geology, exploration etc | | | SINCE THE ENTIRE ML AREA IS EXPLORED FOR AXIS-1, NO FURTHER EXPLORATION IS PROPOSED. |

Development :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|---|--|--|
| 2a | Location of development w.r.t.lease area | SL-5 TO SL-6 RL-42.00 M TO 20.00M | NIL | |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | SEPARATE BENCHES FOR TOPSOIL AND OVERBURDEN | DURING THE INSPECTION IT IS FOUND THAT SEPARATE BENCHES FOR TOPSOIL AND OVERBURDEN | |
| 2c | Stripping ratio or ore to OB ratio | Ore to OB ratio 1:1.2 | Ore to OB ratio 1 : 0 ,since no OB removal during the period | |
| 2d | Quantity of topsoil generation in m3 | 104579 cu.m | nil | No topsoil removal during the year 2017-18 |

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| 2e | Quantity of overburden generation in m3 | 1082393 cu.m | No development work during the year. |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | | The mining operations are carried out in systematic way by forming separate benches in topsoil, ob and limestone mineral. The development work is lacking compared to proposals due to less production of mineral. |

Exploitation:

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|---|---|---|
| 3a | Number of pit proposed for production | Single pit operation | The mine workings are carried out in Single pit. | |
| 3b | Quantity of ROM mineral production proposed | 1696123 t Tonnes | 996400.57 Tonnes | ROM production low due to less offtake by captive cement plant. |
| 3c | Recovery of sailable/usable mineral from ROM production | 100% mineral to be recovered on ROM basis (1696123 tonnes). | 100% mineral to be recovered on ROM basis (996400.57 tonnes). | |
| 3d | Quantity of mineral reject generation | Entire ROM generated is proposed to consume. | As proposed entire ROM is utilised. | No mineral reject generation. |
| 3e | Grade of mineral rejects generation and threshold value declared. | Not Applicable | Not Applicable | |
| 3f | Quantity of sub grade mineral generation. | Not Applicable | Not Applicable | |
| 3g | Grade of sub grade mineral generation | Not Applicable | Not Applicable | |
| 3h | Manual / Mechanised method adopted for segregating from ROM | Not Applicable | Not Applicable | |

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| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | Not Applicable | Not Applicable | |
| 3j | Provision of drilling and blasting in mineral benches | Yes, proposed to carryout Drilling & Blasting on contingency conditions. | As per the proposals. | |
| 3k | Provision of mining machineries in mineral benches | Xcentric Ripper - 1 Excavator - 2, Tipper - 7, Dozer - 1 Water tanker - 1 | As per proposals machinery deployed. | |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | The bench height is proposed to keep 8.0 m. | The bench height maintained as per proposal. | The bench height is suitable for a fully mechanised mine. |
| 3m | Total area covered under excavation/pits | 23.87 ha | 23.87 ha covered under excavation/pits. | |
| 3n | Ore to OB ratio for the pit/mine during the year. | 1:1.2 | 1:0 | No overburden removal during the year. |
| 3o | Total area put in use under different heads at the end of year | 63.60 ha | 63.60 ha | |
| 3p | Production of ROM mineral during the last five year period as applicable | 2013-14 - 1706900 tonnes 2014-15 - 1701340 Tonnes 2015-16 - 1693520 Tonnes 2016-17 - 1699514 Tonnes 2017-18 - 1696123 Tonnes | 2013-14 - 572988 tonnes 2014-15 - 855727 Tonnes 2015-16 - 1524982Tonnes 2016-17 - 1278759 Tonnes 2017-18 - 996401 Tonnes | production reduced during preeceeding and current year mainly due to low offtake of captive cement plant. |

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| 3q | General remarks - of inspecting officers on method of mining etc. | - | - | The mine is developed and working on systematic and scientific way for optimum utilisation of mineral. |
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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 for Topsoil and OB proposed as per rule 32&34 | No developement work carried out during the period. | |
| 4b | Location of topsoil, OB and mineral reject dumps | Top soil dump : North side of Mining lease. OB dump : North side of Mining lease. | Though the top soil and OB dumps maintained as per proposals previously , no developement work carried out during the year and no new stacking was observed. | |
| 4c | Number of dumps within lease area and outside of lease area | 2 dumps within lease area. | 2 dumps within lease area. | |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Northern side | Northern side. | |
| 4e | Number of active and alive dumps. | 2 | 2 | |
| 4f | Number of dead dumps. | Nil | Nil | |
| 4g | Number of dumps established. | Nil | Nil | |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Garland drain around periphery of dump. | Done as per proposal. | |
| 4i | Length of Retaining wall or garland drain all along dumps | Length of garland drain all along dump : 1100 x 3 x 2 metres | 1100 lengthy garland drain constructed all along the dumps. | |

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| 4j | Number of settling ponds | 2 No's of settling ponds has been proposed on the south eastren side of the mining lease boundary. | Constructed 2 No's os settling pond on the south eastren side of the mining lease boundary. |
| 4k | Specific comments of inspecting officer on waste dump management | - | waste dump management 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. | Mineral proposed to be excavated on the southern side. | Nil. lessee has not produced the proposed target of mineral production due to low offtake of the captive cement plant. | |
| 5b | Area under backfilling of mined out area | 2.50 Ha | Nil | |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Top soil will be used for green belt devlopment on the backfilled area as a part of Restoration/Rehabilitation | Top soil will be used for green belt devlopment on the backfilled area. | |
| 5d | Total area fully reclaimed and rehabilitated | Not applicable | Not applicable | - |

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). | Proposal as cited in the mining plan | Submitted PMCP report under rule 23 (E)2 of MCDR 17. | - |

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|----|--|-----|--|---|
| 6b | Area available for rehabilitation (ha) . | Nil | Nil | - |
| 6c | afforestation done (ha). | Nil | Nil | - |
| 6d | No. of saplings planted during the year | Nil | 1500 No's | - |
| 6e | Cumulative no .of plants | Nil | 8100 No's | - |
| 6f | Any other method of rehabilitation | Nil | Nil | - |
| 6g | Cost incurred on watch and care during the year | Nil | Rs. 1.66 Lakhs was spent on watch and care | - |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | Nil | Nil | - |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | Nil | Nil | - |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area | Nil | Nil | - |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | Nil | Nil | - |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | Nil | Nil | - |

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| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | Not applicable | Not applicable | - |
| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | Not applicable. | Not applicable. | - |
| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | Not applicable | Not applicable | - |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Proposed to carryout environment monitoring both Core and Buffer Zones | M/s Ensyscon Environment laboratory, Chennai has been engaged for monitoring Environment data on quaterly bais. | - |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | - | PMCP compliance and progressive closure operations found satisfactory. | - |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|--|---|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | It is proposed to produce 1696123 tonnes of ROM. | 996400 Tonnes of ROM Produced. | Due to Low demand/offtake of the Plant. |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | No proposal for sorting of ROM. | Entire ROM is consumed and fed to Plant for Cement Making. | - |
| 7c | Different grade of mineral sorted out at mines. | Not applicable. | Not applicable. | - |
| 7d | Any beneficiation process at mines | Not applicable. | Not applicable. | - |

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| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | Nil | Nil | - |
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Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|--|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Proposed to be used as for green belt development. | Used for green belt development. | - |
| 8b | Concurrent use or storage of topsoil | Proposed to be used for green belt development. | used for green belt development. | - |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Separate dumps for Topsoil and OB proposed. | Separate dumps for both Topsoil and OB maintained. | - |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Proposed for backfilling. | Since no development work and low production of ROM backfilling was not carried out. | - |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Restoration planned in phased manner. | No work related to reclamation and rehabilitation was carried out. | - |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | Nil | With in the lease are 1500 plantation was done. | - |
| 8g | Survival rate | Proposed 90% survival rate. | 90% achieved. | - |

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|----|--|---|--|---|
| 8h | Water sprinkling on roads to control airborne dust | Proposed to engage water tanker for control of airborne dust. | 10000 Lts capacity water tanker engaged for water sprinkling on haul roads and transit points to control dust. | - |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | - | The aesthetic beauty and condition around mine area is Satisfactory. | - |

Compliance of Rule 45:

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|--|---|---|
| 9a | Status of submission of Monthly and Annual returns | Statutory returns to be submitted as per schedule as per Rule 45 of MCDR 2017. | Monthly Returns submitted upto November 2018. Annual Return submitted for the year 2017-18. | - |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Details furnished in Returns. | Checked and found correct. | - |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Details furnished in respective column. | Found correct. | - |
| 9d | Scrutiny of Annual return on afforestation | The information was furnished in appropriate column. | Checked and found in order. | - |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | The information was furnished in appropriate column. | Found in order | Entire ROM is utilised for plant. |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | The information was furnished in appropriate column. | Details furnished. | ROM production low compared to Proposed Quantity. |

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| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Details furnished in the Returns. | Checked and found in order. | This a captive mine for cement plant. |
| 9h | Scrutiny of Annual return on fixed assets | Details furnished in respective column. | The details are checked and found satisfactory. | The mine is cptive mine for company cement plant. The paid up share capital,Reserves,p lant,infrastructur e Etc,appears to be common . The lessee was advised to give break up or mention the details pertaining to common for all mines. |
| 9k | Scrutiny of Annual return on mining machineries | The information furnished in appropriate column. | The information found satisfactory. | - |

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

| Violation observed | | | Show cause position | | |
|--------------------|------------|---------------|---------------------|-----------|---------------|
| Rule NO. | Issued on | Compliance on | Rule NO. | Issued on | Compliance on |
| MCDR17 | Rule 31(4) | 26/11/2018 | | | |

Date :

(V. Jaya Krishna Babu)

Indian Bureau of Mines