INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR INSPECTION REPORT

Chennai regional office

Mine file No : TN/PT/LST-30.MDS Mine code: 38TMN24030

(i)Name of the Inspecting : T003) S.THIRUNAVUKKARASU

Officer and ID No.

(ii) Designation : Senior Mining Geologist

(iii) Accompaning mine : Mr.J.Ravi (Sr.Manager), Mr.K.Elansurian (Sr.Manager)

Official with Designation

(iv) Date of Inspection : 03/01/2020 Prev.inspection date : 25/06/2019 (v)

PART-I : GENERAL INFORMATION

(a) Mine Name : ALATHIYUR (N)

(b) Registration NO.

(C) Category : A Mechanised

(d) Type of Working Opencast

(e) Postal address

> State : TAMIL NADU District PERAMBALUR

Village Taluka Post office Pin Code

FAX No. : 04329-248303

E-mail alr@madras cements.co.in 04329-248305, 248306 Phone

(f) Police Station : DALAVOI First opening date : 31/03/1995 (g)

Weekly day of rest (h) : SUN

Address for : GENERAL MANAGER (MINES) correspondance

MADRAS CEMENT LIMITED,

ALATHIYUR, DALAVOI, TEH-SENDURAI, DISTT- ARIYALU

3. : TMN0740 (a) Lease Number (b) Lease area : 57.12 Period of lease : 30 (C)

> (d) Date of Expiry **:** 11/04/2029

Mineral worked 4. : LIMESTONE Main 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.RAMA SUBRAMANYA RAJA

AURAS CORPORATE CENTRE VFLOOR,98A,RADAKRISHNAN R MYLAPORE,CHENNAI CHENNAI

CITY TAMIL NADU Phone: 044-8555815 FAX : 044-830248

Agent : S SHANMUGAM

Madras Cements Ltd, TALUKA-Sendurai ARIYALUR TAMIL

NADU

Phone: 04329-248305248306

FAX : 04329-248303

Mining Engineer

Name : M.SURESH BABU, Full Time Qualification : B.E Mining Engineeing

Appointment/ : 01/01/2012

Termination date

Geologist

Name : J.RAVI, Full Time
Qualification : M.Sc Geology
Appointment/ : 16/03/2007

Termination date

Manager

Name : BP.SRIKANTH

Qualification : B.E Mining Engineering

Appointment/ : 25/10/2018

Termination date

6. Date of approval of Mining Plan/Scheme of Mining Mining Scheme rule 22 MCR1960 06/01/1999

Mining Scheme rule 12 MCDR1988 22/06/2004

Mining Scheme rule 12 MCDR1988 28/08/2009

Modif.approved Mining Scheme 08/10/2012

Mining Scheme rule 12 MCDR1988 30/06/2014

MP review under 17(1) MCR 2016 04/12/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|-----------|----------------------------------|---|
| 1a | Backlog of previous year | NIL | Mine fully explored G-1 Level | 9 borehole drilled with total meterage of 439.32 m |
| 1b | Exploration over lease area for geological axis 1 or 2 | NIL | Mine fully explored G-1 Level | NIL |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | NIL | NA | Mine fully explored G-1 Level |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | NIL | NA | Mine fully explored G-1 Level |
| 1e | Balance reserve as on 01/04/20 | | 18,46,998 | NIL |
| 1f | General remarks of inspecting officers on geology, exploration etc | | | The geology, exploration is found satisfactory |

Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|-----------|-------------|--|
| 2a | Location of development w.r.t.lease area | NIL | NA | As per proposal |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | OB - 2, | OB - 2, | Formed as per rule |
| 2c | Stripping ratio or ore to OB ratio | 1 : 0.25 | 1 : 0.67 | As per Proposed production qty not achieved due to quality problem |
| 2d | Quantity of topsoil generation in m3 | NIL | NA | No topsoil generation |
| 2e | Quantity of overburden generation in m3 | | | development of pit is foun satisfactory |

2f General remarks of inspecting officers on development of pit w.r.t. type of deposit etc

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|------------|-------------|--|
| 3a | Number of pit proposed for production | 2 | 2 | As per proposal |
| 3b | Quantity of ROM mineral production proposed | 1,79,550 | 43,390 | Total ROM is Used. |
| 3с | Recovery of sailable/usable mineral from ROM production | 1,79,550 | 43,390 | nil |
| 3d | Quantity of mineral reject generation | NIL | NA | No mineral reject generation, 100 % recovery |
| 3e | Grade of mineral rejects generation and threshold value declared. | NIL | NA | No mineral reject generation |
| 3f | Quantity of sub grade mineral generation. | NIL | NA | No sub-grade mineral generation. |
| 3g | Grade of sub grade mineral generation | NIL | NA | No sub-grade mineral generation. |
| 3h | Manual / Mechanised method adopted for segregating from ROM | Mechanised | Mechanised | NIL |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | NIL | NA | Beneficiation Study is Not Required |
| 3ј | Provision of drilling and blasting in mineral benches | NIL | NA | NIL |

| 3k | Provision of mining machineries in mineral benches | Shovel-1, Tipper-4, | Shovel-1, Tipper-4, | NIL |
|----|--|--|--|---|
| 31 | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Height - 5m, Width - 6m | Height - 5m, Width - 6m | Benches suitable for the method of mining |
| 3m | Total area covered under excavation/pits | 11.753 | 11.753 | As per proposal |
| 3n | Ore to OB ratio for the pit/mine during the year. | 1: 0.25 | 1 : 0.67 | As per Proposed production qty not achieved due to quality problem. |
| 30 | Total area put in use under different heads at the end of year | Minedout land - 11.753 Ha Dump- 3.76 Ha Greenbelt - 7.08 Ha Others- 4.717 | Minedout land - 11.753 Ha Dump- 3.76 Ha Greenbelt - 7.08 Ha Others- 4.717 | nil |
| 3p | Production of ROM mineral during the last five year period as applicable | 2014-15 1,34,000 2015-16 73,000 2016-17 73,000 2017-18 73,000 2018-19 57,000 2019-20 Up to Dec-19 1,79,550 | 2014-15 1,01,283 2015-16 57,115 2016-17 51,566 2017-18 35,671 2018-19 8,997 2019-20 Up to Dec-19 43,390 | NIL |
| 3q | General remarks of inspecting officers on method of mining etc. | | | Method of mining is found satisfactory |

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|-------------------------------------|-------------------------------|--------------------|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | Topsoil are dumped separately | Topsoil are dumped separately | Separately stacked |

| 4b | Location of topsoil, OB and mineral reject dumps | Topsoil ML-0 to ML-2 400 to 650 | Topsoil ML-0 to ML-2 400 to 650 | nil |
|----|--|---------------------------------------|---------------------------------------|---|
| 4c | Number of dumps within lease area and outside of lease area | Top soil - 1 | Top soil - 1 | Dumped within lease area as per proposal |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Topsoil ML-0 to ML-2 400 to 650 | Topsoil ML-0 to ML-2 400 to 650 | No additional dump is proposed |
| 4e | Number of active and alive dumps. | 1 | 1 | NIL |
| 4f | Number of dead dumps. | 1 | 1 | NIL |
| 4g | Number of dumps established. | 1 | 1 | Old dumps are stabilized. |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Yes | Yes | As per proposal |
| 4i | Length of Retaining wall or garland drain all along dumps | | 350 x 3 x 2 mtrs | Garland drain all along dump |
| 4j | Number of settling ponds | 1 | 1 | Existing settling pond de-silted |
| 4k | Specific comments of inspecting officer on waste dump management | | | Waste dump management is 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. | | All minerals are mined & taken before starting of Backfilling | NIL |
| 5b | Area under backfilling of mined out area | NIL | NA | NIL |

| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | YES | YES | Top soil stock for future use of afforestation |
|----|---|-----|-----|--|
| 5d | Total area fully reclaimed and rehabilitated | NIL | NA | No backfilling proposal during the year |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | | | No backfilling, reclamation at this stage |

Progressive Mine Clousre Plan:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|-------------|----------------|-----------------------------------|
| ба | Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2). | Submitted | Submitted | Submitted to IBM in time |
| 6b | Area available for rehabilitation (ha). | NIL | NA | Not at this stage |
| 6c | afforestation done (ha). | NIL | 0.22 h | NIL |
| 6d | No. of saplings planted during the year | | 350 | NIL |
| 6e | Cumulative no .of plants | 13,173 | 13,523 | For entire mine area |
| 6f | Any other method of rehabilitation | NIL | NA | No other method Rehabilitation |
| 6g | Cost incurred on watch and care during the year | Rs.9,87,975 | RS. 10,14,225 | NIL |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | NIL | Not applicable | NIL |

| | 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | NIL | Not applicable | NIL |
|---|----|---|-----|----------------|--|
| | 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area | NIL | Not applicable | NIL |
| (| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | NIL | Not applicable | NIL |
| • | 61 | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | NIL | Not applicable | NIL |
| • | 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | NIL | Not applicable | NIL |
| • | 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | NIL | Not applicable | NIL |
| | 60 | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | NIL | Not applicable | NIL |
| • | 6p | Compliance of environmental monitoring (core zone and buffer zone) | YES | YES | All the monitored values are with in limit. Quarterly Reports submitted to IBM regularly |

6q General remarks --- --- PMCP compliance & of inspecting progressive closure operations compliance and progressive closure operations etc.

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|-----------|-------------|---|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | NIL | Na | Total ROM send to factory |
| 7b | Method of grade- wise mineral sorting i.e. manual or mechanical. | NIL | NA | No Subgrade Mineral |
| 7c | Different grade of mineral sorted out at mines. | NIL | NA | No Subgrade Mineral |
| 7d | Any beneficiation process at mines . | NIL | NA | No other Beneficiation process on mine |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | | | Mineral conservation and beneficiation found satisfactory |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|-----------|-------------|-------------------------------------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | NIL | NA | Top soil not reported |
| d8 | Concurrent use or storage of topsoil | NIL | NA | Top soil storage is for future use. |

| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | NIL | NA | Only backfilling is done |
|--------|---|---------|--------|---|
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | NIL | Na | Backfilling is proposed |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | NIL | NA | Not at the stage |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | 13,173 | 13,173 | NIL |
| 8g | Survival rate | 75 % | 75 % | NIL |
| 8h | Water sprinkling on roads to control airborne dust | prposed | Yes | Water sprinkling is being done |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | | | Aesthetic beauty in and around mines area is found satisfactory |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|-----------|--------------------------------|-------------------------|
| 9a | Status of submission of Monthly and Annual returns | GIVEN | Submitted for the year 2018-19 | MR &AR submited in time |

| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Given in the format | Shri.Avvaru Gopi Sesi Kiran -Mining Engineer | Given in part-II Employed & Wages(I) |
|----|---|---------------------|--|--|
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | format | Given in Part - i. Sl no.12 | nil |
| 9d | Scrutiny of Annual return on afforestation | Given in the format | 350 plantation | Given in Part - i. Sl no.12 |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | Given in the format | NIL | Given in Part - V. Sl no.4.2 |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | Given in the format | No stock reported | Given in Part - VI. Sl no.1 |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Given in the format | Ex mine price Rs.170/t, No sale value, since it is captive mines | Ex mine prise given in Part -VI (2.) and Cost of production Given in part -VII |
| 9h | Scrutiny of Annual return on fixed assets | Given in the format | Not reported | Given in part -II |
| 9k | Scrutiny of Annual return on mining machineries | Given in the format | Shaval-1 Tipper-4 | Given in Part - V Sec - 5 |

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| Details of violations observed during current inspection and compliance position of violation pointed out | | | | | |
|---|------------------|---------|---------------------|-------------|-----------------|
| Violation observed | | | Show couse position | | |
| Rule NO. | Issued on Compli | ance on | Rule NO. | . Issued or | n Compliance on |

Date :

 $(\, {\tt S.THIRUNAVUKKARASU} \,)$

Indian Bureau of Mines