INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

FMCP Inspection REPORT

Chennai regional office

Mine file No : TN/KMJ/LST-9-MDS Mine code: 38TMN30032

(i) Name of the Inspecting: K08) G.SORNADURAI KANNAN

Officer and ID No.

(ii) Designation : Senior Mining Geologist

(iii) Accompaning mine : Thiru.Kesavan, DGM-Mines & Thiru.Rengarajan, AGM-Geol

Official with

Designation

(iv) Date of Inspection : 16/07/2023 (v) Prev.inspection date : 25/06/2021

PART-I : GENERAL INFORMATION

(a) Mine Name : PANDALGUDI(GO.NO.3415)(9.

Registration NO. (b) : 638/IBM/2011

(C) Category : A Fully Mechanised

(d) Type of Working Opencast

(e) Postal address

(f)

State : TAMIL NADU District VIRUDHUNAGAR Village PANDALGUDI Taluka ARUPPUKOTTAI Post office : PANDALGUDI

Pin Code : 626113

: 044-28478676 (F)/7501(O)/2FAX No. E-mail kg@madrascements.co.in

: 9841093002 Phone : Pandalgudi Police Station

First opening date : 09/03/2001 (g)

Weekly day of rest (h) : SUN

Address for : 5TH FLOOR, AURAS CORPORATE CENTRE, 98,

correspondance DR.RADHAKRISHNA SALAI,

MYLAPORE, CHENNAI -600 004.

3. Lease Number : TMN0024 (a) Lease area : 9.34 (b)

Period of lease **:** 5 (C)

(d) Date of Expiry : 02/11/1987

Mineral worked 4 : LIMESTONE Main 5. Name and Address of the

Lessee : M/S.Madras Cement Ltd,

V Floor, Dr,Radhakrishnan Road, Mylapore, CHENNAI

CITY TAMIL NADU Phone: (044) 830248 FAX : (044) 830248

Owner : MADRAS CEMENTS LIMITED

AURAS CORPORATE CENTRE V FLOOR, 98-A,DR RADAKRISHNAN ROAD MYLAPORE, CHENNAI -600 004 PERAMBALUR TAMIL

NADU
Phone:
FAX:

Geologist

Name : R.RENGARAJ, Full Time

Qualification : MSc Geology Appointment/ : 16/08/2019

Termination date

6. Date of approval of Mining : Mining Scheme rule 12 MCDR1988 16/03/2016 Plan/Scheme of Mining : MP review under 17(1) MCR 2016 02/11/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|---|---|---|
| 1a | Backlog of previous year | No Boreholes has been proposed during 2022-2023. | No Boreholes has drilled | Inspection has carried out under Verification of implementation of FMCP proposals |
| 1b | Exploration over lease area for geological axis 1 or 2 | No Additional exploration boreholes was proposed over the lease area during 2022-2023 | No Boreholes has drilled | Inspection has carried out under Verification of implementation of FMCP proposals |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | No Proposal for exploration during 2022- 2023 | No Boreholes has drilled | Inspection has carried out under Verification of implementation of FMCP proposals |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | Exploration was not proposed during 2021-2023. | No Boreholes has drilled | Inspection has carried out under Verification of implementation of FMCP proposals |
| 1e | Balance reserve as on 01/04/20 | As on 01.04.2023 Pre-Feasibility Mineral Resources (221) = 843025 tons | As on 01.04.2023 Pre-Feasibility Mineral Resources (221) = 843025 tons | Due to Deeper mining, State highway safety zone, nearby habilitation. The mining is uneconomic. |
| 1f | General remarks of inspecting officers on geology, exploration etc | It is part of Archean formations | The deposit consists of Charnockite, Granite, Granulite, Syenite, Pegmatite occurs as hang wall & footwall rock for and Crystalline limestone band. | The length of band is 7.0km and width of band varying from 5m to 60m. |

Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|-------------------------------------|-------------|---|
| 2a | Location of development w.r.t.lease area | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |

| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
|----|---|-------------------------------------|--|--|
| 2c | Stripping ratio or ore to OB ratio | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 2d | Quantity of topsoil generation in m3 | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 2e | Quantity of overburden generation in m3 | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | No Proposal during 2022- 2023 | No working proposal has been given in approved FMCP. | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|-------------------------------------|-------------|---|
| 3a | Number of pit proposed for production | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3b | Quantity of ROM mineral production proposed | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3c | Recovery of sailable/usable mineral from ROM production | during 2022- | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3d | Quantity of mineral reject generation | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |

| 3e | Grade of mineral rejects generation and threshold value declared. | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
|----|--|-------------------------------------|-----|---|
| 3f | Quantity of sub grade mineral generation. | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3g | Grade of sub grade mineral generation | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3h | Manual / Mechanised method adopted for segregating from ROM | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3j | Provision of drilling and blasting in mineral benches | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3k | Provision of mining machineries in mineral benches | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 31 | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3m | Total area covered under excavation/pits | No Proposal during 2022- 2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3n | Ore to OB ratio for the pit/mine during the year. | _ | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |

| 30 | Total area put in use under different heads at the end of year | Land use Pattern as on 01.04.2023. Excavated area = 6.76 hect Dump = 1.10 hect Green belt = 1.40 hect | Land use Pattern as on 01.04.2023. Excavated area = 6.76 hect Dump = 1.10 hect Green belt = 1.40 hect | Inspection has carried out under Verification of implementation of FMCP proposals |
|----|--|---|---|--|
| 3p | Production of ROM mineral during the last five year period as applicable | 2022-2023 = Nil 2021-2022 = Nil 2020-2021 = 15188 tons 2019-2020 = 15525 tons 2018-2019 = 14963 tons | 2022-2023 = Ni1 2021-2022 = Ni1 2020-2021 = 137 tons 2019-2020 = Ni1 2018-2019 = 119 tons | Inspection has carried out under Verification of implementation of FMCP proposals |
| 3q | General remarks of inspecting officers on method of mining etc. | No Proposal during 2022- 2023 | No working proposal has been given in approved FMCP. | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---|-------------|---|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | There is no proposal for dumping during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 4b | Location of topsoil, OB and mineral reject dumps | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 4c | Number of dumps within lease area and outside of lease area | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |

| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
|----|--|---------------------------------------|--|--|
| 4e | Number of active and alive dumps. | | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 4f | Number of dead dumps. | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 4g | Number of dumps established. | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | There is no proposal during 2022-2023 | Garland drainage & Fencing is made. | Inspection has carried out under Verification of implementation of FMCP proposals |
| 4i | Length of Retaining wall or garland drain all along dumps | There is no proposal during 2022-2023 | Garland drain has made for 1000m are constructed around the lease area and 1850m barbed wire fencing was erected all along the periphery of SM pit | Inspection has carried out under Verification of implementation of FMCP proposals |
| 4j | Number of settling ponds | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 4k | Specific comments of inspecting officer on waste dump management | No Proposal during 2022- 2023 | Garland drain and fencing are made. | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |

Solid Waste Management - Backfilling:

| Sl.No. | Item | Propasals | Actual work | Remarks | |
|-----------|------|-----------|-------------|---------|--|
| 2 = 12.0. | | 110102012 | | | |

| 5a | Status of part or full extraction of mineral from mined out area before starting backfilling. | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
|----|---|---------------------------------------|-----|--|
| 5b | Area under backfilling of mined out area | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 5d | Total area fully reclaimed and rehabilitated | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |

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). | It should be on or before 1st July every year. | Submitted for the year 2022-2023. | Submitted within time limit. |
| 6b | Area available for rehabilitation (ha) . | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 6c | afforestation done (ha). | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |

| 6d | No. of saplings planted during the year | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
|----|--|-------------|-----|---|
| 6e | Cumulative no .of plants | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 6f | Any other method of rehabilitation | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 6g | Cost incurred on watch and care during the year | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 61 | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | No Proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |

| бm | Compliance of rehabilitation of waste land within lease (i)afforestation | 5000 Nos Saplings | 5730 Saplings has been planted | Plantations are planted in patches of lease area near pit-2, 3 & SM pits and grass are planted. Inspection has carried out under Verification of implementation of FMCP proposals |
|----|---|------------------------|--------------------------------|---|
| бn | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | 1.5 hectares | 2.0 hectares | Inspection has carried out under Verification of implementation of FMCP proposals |
| 60 | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | Gap plantation | Gap plantation | Inspection has carried out under Verification of implementation of FMCP proposals |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Bi-Annually Survey | Carried out | Inspection has carried out under Verification of implementation of FMCP proposals |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | 5000 saplings proposed | 5730 saplings has been planted | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---------------------------------------|-------------|---|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 7b | Method of grade- wise mineral sorting i.e. manual or mechanical. | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |

| 7c | Different grade of mineral sorted out at mines. | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
|----|--|---------------------------------------|-----|--|
| 7d | Any beneficiation process at mines | proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|---------------------------------------|-------------|---|
| 8a | Separate removal and utilization of topsoil (Rule 32) | proposal | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| d8 | Concurrent use or storage of topsoil | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
| 8đ | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |

| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | There is no proposal during 2022-2023 | Nil | Inspection has carried out under Verification of implementation of FMCP proposals |
|----|---|--|---|---|
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | 5000 saplings proposed | 5730 saplings has been planted | Inspection has carried out under Verification of implementation of FMCP proposals |
| 8g | Survival rate | No Proposal in the document. | 95% | Inspection has carried out under Verification of implementation of FMCP proposals |
| 8h | Water sprinkling on roads to control airborne dust | Yes, it is proposed. | Carried out | Inspection has carried out under Verification of implementation of FMCP proposals |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | Scanty vegetation, bushes, neem are observed in lease area | There is no prominent river or stream running in this area. | Outside lease area, agriculture is done with rainfed. |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|--|--|
| 9a | Status of submission of Monthly and Annual returns | MR Submitted up to = June 2023 AR Submitted up to = 2022- 2023 | Returns are submitted within time limit. | Both Annual & Monthly returns are submitted in online |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Full time Mining Engineer & Mining Geologist is not shown. | Mining Engineer & Mining Geologist are appointed in Pandalgudi group of mines. During inspection they are present. | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |

| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | 01.04.2022. Mines = 6.76 hect | Landuse Pattern is filled as per approved Final Mine Closure Plan | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |
|------------|---|--|---|--|
| 9 d | Scrutiny of Annual return on afforestation | Lessee has planted 5730 saplings during 2022-2023. | Plantation has been done as per proposal. Cumulatively 10730 saplings have been planted upto 2022-2023. | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | There is no Mineral Rejects Generation | There is no Mineral Rejects Generation | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | | No Production during 2022-2023. | It is captive mine of M/s. The Ramco Cements Limited. |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Cost of Production & Ex. Mine price has shown as Nil | It is captive mine of M/s. The Ramco Cements Limited. | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |
| 9h | Scrutiny of Annual return on fixed assets | Fixed Assets is given | Fixed Assets is filled | Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of certificate under final closure. |

Scrutiny of Not shown due Not available in field Annual return on to no working due to FMCP.

mining machineries

9k

Inspection has carried out under Verification of implementation of FMCP proposals as per Rule 21(4) of MCDR 2017 for grant of

certificate under final closure.

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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 | Compliance on | Rule NO. | Issued on Compliance on |

Date :

(G.SORNADURAI KANNAN)

Indian Bureau of Mines