# INDIAN BUREAU OF MINES MINERAL DEVELOPMENT AND REGULATION DIVISION

#### MCDR INSPECTION REPORT

| ~     | 11 N. ATD / OM = 3500                           | Chennai Regional Office  |
|-------|---|--|
|       | ile No.ALR/LST-7.MDS                            | Mine code - 38TMN38010   |
| (i)   | Name of the inspecting officer &                | KUMERESH A Senior Assistant Controller of Mines                      |
| (;;)  | Designation Accompanied mine official and       | Shri. K.Nagendran, Sr.DGM (Mines)                                    |
| (ii)  | designation                                     | Shri. R.Nagendran, Sr.DGM (Mines) Shri. P.Senthamilselvan, Geologist |
| (iii) | Date of inspection                              | 23/09/2024   |
| (iv)  | Date of inspection  Date of previous inspection | 05/09/2023   |
| (17)  |   | ART-I: General Information   |
| 1.    | Mine Name                                       | Pudupalayam North Limestone Mine                                     |
|       |   |  |
|       |   |  |
| (b)   | Registration Number                             | IBM/638/2011   |
| (c)   | Category  | A  |
| (d)   | Type of Working                                 | Opencast   |
|       | Postal Address                                  | Pudupalayam North Limestone Mine,                                    |
|       | State   | M/s. The Ramco Cements Limited,                                      |
|       | District  | Govindapuram Works,  |
|       | Village   | Sendurai Road, Ariyalur District.                                    |
| (e)   | Taluka  | Phone No: 044-28477504   |
| (0)   | Post Office                                     | Fax No: 28478676   |
|       | Pin Code  | Email id: magesh@ramcocements.co.in                                  |
|       | FAX No.   |  |
|       | E-mail  |  |
|       | Phone   |  |
| (f)   | Police Station                                  | Kairulabad   |
| (g)   | First opening date                              | 24/03/2009   |
| (h)   | Weekly day of rest                              | Scattered  |
|       |   | Shri. Madhusudan Kulkarni  |
|       |   | Sr.Vice President (Mfg.)   |
|       |   | M/s. The Ramco Cements Limited,                                      |
| 2.    |   | Govindapuram Works,  |
| ے.    | Address for correspondence                      | Sendurai Road, Ariyalur.   |
|       |   | Phone No: 044-28477504   |
|       |   | Fax No: 28478676   |
|       |   | madhusudan.k@ramcocements.co.in                                      |
| _     |   | Date of Appointment: 16/09/2019                                      |
| 3.    |   | TMN1030  |
|       | Lease Number                                    |  |
|       | Deade Humber                                    |  |
|       |   | 26.075 Ha  |
|       | Lease Area                                      |  |
|       |   |  |
|       |   | 20 years   |
|       |   |  |
|       | Period of lease                                 |  |

|    |                                    | 15.06.2015  |
|----|------------------------------------|---|
|    | Date of expiry                     | 15.00.2015  |
| 4. | Mineral worked                     | Limestone   |
| 5. |                                    |   |
|    | Name and address of the<br>Lessee: | M/s. The Ramco Cements Limited,   |
|    | Owner:                             | Shri.P.R. Venketrama Raja, The Ramco Cements Limited, Auras Corporate Centre, No:98A, 5th Floor, Mylapore, Chennai. Telephone No: 044-28478666 Fax No: 28478676   |
|    | Agent:                             | Shri. Madhusudan Kulkarni Sr.Vice President (Mfg.) M/s. The Ramco Cements Limited, Govindapuram Works, Sendurai Road, Ariyalur. Phone No: 044-28477504 Fax No: 28478676 madhusudan.k@ramcocements.co.in Date of Appointment: 16/09/2019 |
|    | Manager:                           | Shri.A.Rambabu, M/s. The Ramco Cements Limited, Govindapuram Works, Sendurai Road, Ariyalur. Phone No: 044-28477504 Fax No: 28478676 minesary@ramcocements.co.in Date of Appointment: 01/07/2019  |
|    | Engineer:                          | Shri.E.Thangakumar, Diploma in Mining, M/s. The Ramco Cements Limited, Govindapuram Works, Sendurai Road, Ariyalur. Phone No: 044-28477504 minesary@ramcocements.co.in Date of Appointment: 20/01/2022                                  |
|    | Geologist:                         | S.Arun (Geologist) M/s. The Ramco Cements Limited, Govindapuram Works Sendurai Road, Ariyalur. Mobile No: 9788859706 sarun@ramcocements.co.in   |

|   |  | Date of Appointment: 01/04/2017  |
|---|--|--|
| 6 | Date of Approval of Mining Plan/Modified Mining Plan with five – year period and specific condition in approval letter, if any.  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: 07/08/2006  MP modified under 17(3) MCR 2016: 24/10/2016  Mp review under 17(1) MCR 2016: 31/10/2018  MP modified under 17(3) MCR 2016: 18/08/2020 |

# PART-II : OBSERVATION / COMMENTS OF INSPECTING OFFICER $\underline{\textbf{EXPLORATION}}$

| S. No. | Item  | Proposals   | Actual Work  | Remarks   |
|--------|---|-------------|--|---|
| 1a     | Backlog of previous year  | No Proposal | Nil  | In order to establish the<br>bottom contact Already the<br>area had been explored under<br>G1 category  |
| 1b     | Exploration over lease area for Geological axis 1 or 2.             | 2           | 2  |   |
| 1c     | Exploration Agency & Expenditure in lakh Rupees during the year     | No Proposal | 0.20 Lakhs -To<br>prove the non<br>existence of<br>Mineral |   |
| 1d     | Balance area to be explored to bring Geological axis in 1 or 2      | No Proposal | Nil  |   |
| 1e     | Balance reserves as on 01.04.2024 (111 Category)                    |             | Mineral<br>Exhausted as<br>per the MMP                     |   |
| 1f     | General comments of inspecting officer on geology, exploration etc. | -           | -  | The entire Mining lease area is mineralized with Buff Shell limestone deposit which is having thickness of 28m which is overlain by 2-18m of overburden and soil cover varying from 0 to 2m. Entire lease is explored under G-1 level exploration |

#### **DEVELOPMENT**

| S. No. | Item   | Proposals                       | Actual Work                 | Remarks                         |
|--------|--|---------------------------------|-----------------------------|---------------------------------|
| 2a     | Location of development w.r.t. lease area  | Between Section AA to BB        | Between Section AA to<br>BB | Between Section AA<br>to BB     |
| 2b     | Separate benches in<br>topsoil, overburden and<br>minerals (Rule 13 of<br>MCDR-2017) | OB benches-3<br>L.st benches- 4 | Done as per the proposal    | OB benches-3<br>L.st benches- 4 |
| 2c     | Stripping ratio or ore to OB ratio   | 1:0.07                          | 1:0.07                      | 1:0.07                          |
| 2d     | Quantity of topsoil generation in m3   | No Proposal                     | -                           | Nil                             |

| 2e | Quantity of overburden generation in m3  | 30820 | 29750 | As per Plan |
|----|--|-------|-------|-------------|
| 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  | Single pit operation   | Single pit operation   |                                     |
| 3b     | Quantity of ROM mineral production proposed  | 2023-24:432800 Tons  | 2023-24 - 432691.84 Tons   | Within the limit                    |
| 3c     | Recovery of salable/usable mineral from ROM production   | 100%   | 100%   | Nil                                 |
| 3d     | Quantity of mineral reject generation  | Na   | Nill   | Nil                                 |
| 3e     | Grade of mineral rejects generation and threshold value declared.                                  | Na   | Nill   | Nil                                 |
| 3f     | Quantity of sub grade mineral generation.  | Na   | Nill   | Nil                                 |
| 3g     | Grade of sub grade mineral generation  | Na   | Nill   | Nil                                 |
| 3h     | Manual / Mechanized method adopted for segregating from ROM  | Na   | Nill   | Nil                                 |
| 3i     | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.    | Na   | Nill   | Nil                                 |
| 3j     | Provision of drilling and blasting in mineral benches  | Yes  | Adopted non conventional method by deploying Xcentric Ripper                   | Not applicable                      |
| 3k     | Provision of mining machineries in mineral benches   | Excavator-1<br>Xcentric Ripper-1<br>Tipper-13<br>Water Tanker-1                | As Excavator-1<br>Xcentric Ripper-1<br>Tipper-13<br>Water Tanker-1             | Nil                                 |
| 31     | Whether height of benches in overburden and mineral suitable for method of mining proposed in RoMP | 8.0m   | 8.0m   | Suitable for<br>method of<br>mining |
| 3m     | Total area covered under excavation/pits   | 7.10.0 Hect  | 7.10.0 Hect  | Nil                                 |
| 3n     | Ore to OB ratio for the pit/mine during the year.  | 1:0.07   | 1:0.07   | Nil                                 |
| 30     | Total area put in use under different heads at the end of year                                     | Area under mining- 7.1,<br>Top soil-00,<br>Overburden-0<br>Mineral Storage=0.0 | Area under mining- 7.1,<br>Top soil-00,<br>Overburden-0<br>Mineral Storage=0.0 | Within proposed<br>limits           |

|    |                                  | Infrastructure-0.20.0  | Infrastructure-0.20.0                                |               |
|----|----------------------------------|------------------------|--|---------------|
|    |                                  | Roads-0.60.0           | Roads-0.60.0   |               |
|    |                                  | Railways-0.0,          | Railways-0.0,  |               |
|    |                                  | Tailing pond-0.0       | Tailing pond-0.0                                     |               |
|    |                                  | Effulent treatment-0.0 | Effulent treatment-0.0                               |               |
|    |                                  | Mineral separation     | Mineral separation plant-                            |               |
|    |                                  | plant-0.0              | 0.0  |               |
|    |                                  | Township area-0.0      | Township area-0.0                                    |               |
|    |                                  | Others to be specified | Others to be specified                               |               |
|    |                                  | (green belt, etc.,)-   | (green belt, etc.,)- 14.35                           |               |
|    |                                  | 14.35                  | Total-22.25.0  |               |
|    |                                  | Total-22.25.0          | 10tal-22.23.0  |               |
|    |                                  | 2019-20:1000200 Tons   | 2019-20 - 744618.28 Tons                             |               |
|    | Production of ROM mineral        | 2020-21:600900 Tons    | 2020-21 - 372176.02 Tons                             |               |
| 2n |                                  | 2021-22:99980 Tons     | 2020-21 - 372176.02 Tolls<br>2021-22 - 99959.98 Tons |               |
| 3p | during the last five-year period |                        |  |               |
|    | as applicable                    | 2022-23:101500 Tons    | 2022-23 - 101400.16 Tons                             |               |
|    |                                  | 2023-24:432800 Tons    | 2023-24 - 432691.84 Tons                             | _, , , ,      |
|    | General remarks of inspecting    |                        |  | The method of |
| 3q | officers on method of mining     | _                      | _  | mining was    |
| 54 | etc.                             |                        |  | found         |
|    | - C.C.                           |                        |  | satisfactory. |

#### **SOLID WASTE MANAGEMENT-DUMPING**

| S. No. | Item   | Proposals   | Actual Work   | Remarks  |
|--------|--|-------------|---|--|
| 4a     | Separate dumping of topsoil,<br>OB and mineral rejects (Rule<br>36,37) | Nil         | Nil   | Nil  |
| 4b     | Location of topsoil, OB and mineral reject dumps                       | Nil         | Nil   | Nil  |
| 4c     | Number of dumps within lease area and outside of lease area            | Nil         | Nil   | Nil  |
| 4d     | Location of dumps w.r.t.<br>ultimate pit limit (Rule 16)               | Nil         | Nil   | Nil  |
| 4e     | Number of active and alive dumps.                                      | Nil         | Nil   | Nil  |
| 4f     | Number of dead dumps.  | Nil         | Nil   | Nil  |
| 4g     | Number of dumps established.   | Nil         | Nil   | Nil  |
| 4h     | Whether Retaining wall or garland drain all along dumps are there.     | Nil         | Nil   | Nil  |
| 4i     | Length of Retaining wall or garland drain all along dumps              | Nil         | 700m garland<br>drainage was<br>constructed in the<br>past and is being<br>maintained | Garland drainage<br>constructed in the past is<br>being maintained |
| 4j     | Number of settling ponds   | No proposal | No proposal   | Nil  |
| 4k     | Specific comments of inspecting officer on waste dump management       |             |   | Nil  |

### 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. | No proposal | Nil | Nil |
|----|---|-------------|-----|-----|
| 5b | Area under backfilling of mined out area  | No proposal | Nil | Nil |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)       | No proposal | Nil | Nil |
| 5d | Total area fully reclaimed and rehabilitated  | No proposal | Nil | Nil |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc                     | Nil         | Nil | Nil |

# 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)                                 | Proposal as<br>cited in the<br>Mining plan | Submitted the PMCP report vide Rule 23 E(2) of MCDR 2017 | PMCP report<br>submitted before<br>due date as<br>reported |
| 6b     | Area available for rehabilitation (ha).  | Nil  | Nil  |  |
| 6c     | Afforestation done (ha).   | 12.70.0 Hect                               | 26.00.0 Hect   |  |
| 6d     | No. of saplings planted during the year  | 1000 No's                                  | 1000 No's  | In backfilled area   |
| 6e     | Cumulative no. of plants   | 19000 No's                                 | 45000 No's   | As per plan  |
| 6f     | Any other method of rehabilitation   | Not applicable                             | Not applicable   | Nil  |
| 6g     | Cost incurred on watch and care during the year  | Nil  | 5.00 Lakhs   | Nil  |
| 6h     | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D) | No proposal                                | -  | -  |
| 6i     | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings          | 1000 No's                                  | 1000 No's  | As per plan  |
| 6j     | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation backfilled area             | Proposal as<br>cited in the<br>Mining plan | Submitted the PMCP report vide Rule 23 E(2) of MCDR 2017 |  |
| 6k     | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir  | Nil  | 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                          | Nil                        | Rehabilitation as done<br>by green belt<br>development on the<br>backfilled area | As per plan  |
|----|---|----------------------------|--|--|
| 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             | No waste<br>land available | Nil  | Nil  |
| 6р | Compliance of environmental monitoring (core zone and buffer zone)                                | Yes                        | Quarterly monitored  | Nil  |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | Nil                        | Nil  | All the proposed PMCP activities are being carried out |

# MINERAL CONSERVATION

| S. No. | Item   | Proposals  | Actual Work   | Remarks |
|--------|--|--|---|---------|
| 7a     | ROM Mineral dispatch or grade-wise sorting within lease area                         | Nil  | Nil   | -       |
| 7b     | Method of grade wise mineral sorting i.e. manual or mechanical.                      | Nat Amaliankla   | A   |         |
| 7c     | Different grade of mineral sorted out at mines.                                      | Not Applicable as<br>we proposed to<br>consume on ROM<br>(Run of Mine) basis | As proposed,<br>consumed on<br>ROM (Run of<br>Mine) basis | -       |
| 7d     | Any beneficiation process at mines   | (Run of Finite) busis  | rime) busis   |         |
| 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)                  | No Proposal | -           | Till date, topsoil of 4,76,020 m3 was generated and the same was utilized for spreading over the backfilled area for green belt development |
| 8b     | Concurrent use or storage of topsoil                                   | No Proposal | -           | As per plan   |
| 8c     | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | No Proposal | -           | As per plan   |

| 8d | Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use            | No Proposal   | -   | As per plan   |
|----|---|---|---|---|
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No Proposal   | -   | As per plan   |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41)                    | -   | Planted 1000 No's<br>on the backfilled<br>area  | As per plan   |
| 8g | Survival rate   | Proposed to maintain 90%  | 90%   | -   |
| 8h | Water sprinkling on roads to control airborne dust  | Propose to engage<br>Water Tanker for<br>control airborne<br>dust | 10000 Liters water<br>tanker is being<br>engaged for<br>sprinkling to<br>control airborne<br>dust | As per plan   |
| 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<br>submission<br>of Monthly<br>and Annual<br>returns   |  | M.R. Submitted upto August -2024<br>Annual Return submitted - 2023-24   |         |  |
| 9b     | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager  | Mining Engineer -<br>E.Thangakumar Geologist -<br>S.Arun Mine Manager -<br>A.Rambabu | Given in Part I, Sl 7-9   |         |  |
| 9c     | Area under mining- 7.1, Top soil-00, Scrutiny of Overburden-0 Annual Mineral Storage=0.0 Infrastructure-0.20.0 land use Roads-0.60.0 pattern for area under pits, reclaimed area, dumps etc.  Area under mining- 7.1, Top soil-00, Railways-0.0  Effluent treatment-0.0 Mineral separation plant-0.0 Township area-0.0 Others to be specified (green belt, etc.,)- 14.35 |  | Area under mining- 7.1, Top soil-00, Overburden-0 Mineral Storage=0.0 Infrastructure-0.20.0 Roads-0.60.0 Railways-0.0, Tailing pond-0.0 Effluent treatment-0.0 Mineral separation plant-0.0 Township area-0.0 Others to be specified (green belt, etc.,)- 14.35 Total-22.25.0 |         |  |

| 9d | Scrutiny of<br>Annual<br>return on<br>afforestation                         | 1000 No's  | Given in Part V, Sl 5                     |  |
|----|---|--|---|--|
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | No reject  | Given in Part VI, Sl 3                    |  |
| 9f | Scrutiny of<br>Annual<br>return on<br>ROM stock<br>and/or<br>graded ore     | No stock   | Given in Part VI, Sl 2 & 3(ii)            |  |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Ex-Mine price - Rs.310.36/-  | Given in Part VI, SI 3 (ii) &<br>Part VII |  |
| 9h | Scrutiny of<br>Annual<br>return on<br>fixed assets                          | Fixed assets: Rs. 17700000/-   | Given in Part II A                        | Provided in part -II<br>(A).Jointly for 7<br>leases. |
| 9i | Scrutiny of<br>Annual<br>return on<br>mining<br>machineries                 | Excavator - 1 No<br>Xcentric Ripper - 1 No<br>Tipper – 6 No's<br>Water Tanker – 1 No<br>Dozer - 1No. | Given in Part V, Sl 6                     |  |

| 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 |

Date:

KUMERESH A

SrAsst Controller of Mines

Indian Bureau of Mines