INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR inspection REPORT

Chennai regional office

Mine file No: TN/PT/LST-18.MDS Mine code: 38TMN38002

(i) Name of the Inspecting : 043) T.PHALTHURAIRAJHEN

Officer and ID No.

(ii) Designation : Junior Mining Geologist

(iii) Accompaning mine : Mr.T.Santhakumar, Dy.Manager (Mines)

Official with Designation

(iv) Date of Inspection : 02/12/2022
(v) Prev.inspection date : 01/09/2021

PART-I : GENERAL INFORMATION

(a) Mine Name : ANANDAVADI

(b) Registration NO. : IBM/7446/2011

(c) Category : A Mechanised

 $\text{(d)} \qquad \text{Type of Working} \qquad \qquad : \quad \text{Opencast} \\$

(e) Postal address

State : TAMIL NADU
District : ARIYALUR
Village : ANADAVADI
Taluka : SENDURAI

Post office : CHINNA ANANDAVADE

Pin Code : 621718

FAX No. :

E-mail : acwgeology@gmail.com, co@ta

Phone : 044-28535461

(f) Police Station : ARIYALUR
(g) First opening date : 01/09/2001

(h) Weekly day of rest : SUN

2. Address for : M/S TAMILNADU CEMENT CORPORATION LTD

correspondance

3. (a) Lease Number : TMN0772
(b) Lease area : 110.68
(c) Period of lease : 30

(d) Date of Expiry : 13/07/2030

4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : TAMILNADU CEMENT CORPORATION LTD.

735, ANNA SALAI, P.B.No: 5205, LLA BUILDING, CHENNAI CITY TAMIL NADU

Phone: 044-28525461, 28526321, 28571426

FAX :044-28523991

Owner : M/S TAMILNADU CEMENT CORPORATION LTD

PERAMBALUR TAMIL NADU

Phone: FAX:

Agent : T Ravichandran

Ariyalur Cement Works Ariyalur Cement Factory (Post) Ariyalur ARIYALUR

TAMIL NADU

Phone: 9123457311

FAX :

Mining Engineer

Name : B Vinoth, Full Time

Qualification : B.E.(Mining) Appointment/ : 13/02/2013

Termination date

Geologist

Name : S.Prasad, Full Time

Qualification : Msc (Geology) Appointment/ : 21/07/2011

Termination date

Geologist

Name : I Dilipan, Full Time

Qualification : M.Sc.(Geo)
Appointment/ : 01/07/2020

Termination date

Manager

Name : V Karthikeyan
Qualification : B.E.(Mining)
Appointment/ : 17/04/2020

Termination date

MP modif under 17(1) MCR 2016 22/07/2018
MP review under 17(1) MCR 2016 30/06/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--------------------------------------------------------------------------------|-------------------------|----------------------|-------------------------------------|
| 1a | Backlog of previous year | NIL | NIL | NIL |
| 1b | Exploration over lease area for geological axis 1 or 2 | NIL | 8 bore holes | 8 boreholes of 300 mts each 45 mts. |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | - | Rs.2,10,000.00/ | Excludings GST. |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | NIL | NIL | NIL |
| 1e | Balance reserve as on 01/04/20 | 9.27 Million Tonnes. | 9.27 Million Tonnes. | As per current mining plan. |
| 1f | General remarks of inspecting officers on geology, exploration etc | - | - | nil |

Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|----------------------------------------------------------------------------|--------------------|--------------------------------------|---------|
| 2a | Location of development w.r.t.lease area | north pit 1 & 2 | north pit 1 & 2 | Nil |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | (2.5 (OB), 6 | 0.5m(TS) , 2.5 (2.5 (OB), 6 mts (LS) | Nil |
| 2c | Stripping ratio or ore to OB ratio | 1;2 | 1;2 | nil |
| 2d | Quantity of topsoil generation in m3 | 225287 Ts. | 198352 Ts | NIL |
| 2e | Quantity of overburden generation in m3 | 43147 Ts | 278345Ts | Nil |

2f General remarks - - Nil
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 pits | 2pits | nil |
| 3b | Quantity of ROM mineral production proposed | 15,00,000, Tonnes | 400774 tonnes | Due to rain & covid issue thr production was less. |
| 3c | Recovery of sailable/usable mineral from ROM production | Nil | Nil | Nil |
| 3d | Quantity of mineral reject generation | 4,90,500 Tonnes | 417087 Tonnes. | |
| 3e | Grade of mineral rejects generation and threshold value declared. | 18-20 % Cao | 18-20 % Cao | Nil |
| 3f | Quantity of sub grade mineral generation. | Nil | Nil | Nil |
| 3g | Grade of sub grade mineral generation | Nil | Nil | Nil |
| 3h | Manual / Mechanised method adopted for segregating from ROM | mechanized method | mechanized method | Nil |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | Nil | Nil | _ |
| 3j | Provision of drilling and blasting in mineral benches | Nil | Nil | Non conventional Mining By Rock breaker. |

| 3k | Provision of mining machineries in mineral benches | Non conventional method of mining. | Non conventional method of mining. | Rocker breaker sieve bucket Excavator, Taurus. |
|------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 31 | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | bench height 6 mts, bench width 8 mts | bench height 6 mts, bench width 8 mts | bench height 6 mts, bench width 8 mts |
| 3 m | Total area covered under excavation/pits | 15.045 ha | 13.33 ha | - |
| 3n | Ore to OB ratio for the pit/mine during the year. | 1:2 | 1:2 | Nil |
| 30 | Total area put in use under different heads at the end of year | Mining -10.54 Ha, Waste dump-5.00 ha,office & infrasture,- 0.02.0 ha, Mine Roads- 4.00.0ha ,Area under plantion 4.00.0 haUn utilised Area- 88.62.5 ha | Mining-40.0.0 Waste dump-2.00.0 ha, mine Roads-1.00.0 ha, Area under plantation - 10.50.0 ha, Unutized area-37.62.5 ha | Nil |
| 3p | Production of ROM mineral during the last five year period as applicable | 2018- 19=11,25,692 Ts, 2019- 20=15,03,250 Ts, 2020- 21=15,01,360 Ts, 202122=14,98,4 86 Ts. | 2018-19=259919.61 Ts, 2019-20=6408.30 Ts, 2020-21=259810.97 ts, 2021-22= 400774 Ts. | Nil |
| 3 d | General remarks of inspecting officers on method of mining etc. | - | - | Satisfactory. |

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|------------------------------------------------------------------|-----------|-------------|-----------------------------------------|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | Yes. | Yes | Removed OB and dumped in separate dump. |

| 4b | Location of topsoil, OB and mineral reject dumps | Top soil-11 11"25.12" OB- 11 11"18.07"N 79 11"15.36 E, Mineral reject-11 11 12.32"N 79 11 11.54"E | Top soil-11 11"25.12 "N, 79 10'53.36"E, OB-11 11"18.07"N 79 11"15.36E, Mineral reject-11 11 12.32"N 79 11 11.54"E | dump placed in Proposed area. |
|------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------|
| 4c | Number of dumps within lease area and outside of lease area | 02 dumps within lease | 02 dumps within lease | Nil |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Outside altimate pit limit | Outside altimate pit limit | nil |
| 4e | Number of active and alive dumps. | 2 | 2 | Nil |
| 4f | Number of dead dumps. | Nil | Nil | - |
| 4 g | Number of dumps established. | NIL | NIL | NIL |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | forgarland | Garland drainage built all along the dump with settling pond | nil |
| 4i | Length of Retaining wall or garland drain all along dumps | not mentioned | 60 mts. | - |
| 4ј | Number of settling ponds | not mentioned | 2 settling ponds | Nil |
| 4k | Specific comments of inspecting officer on waste dump management | - | - | Nil |

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. | partly Extracted | partly Extracted | - |
| 5b | Area under backfilling of mined out area | Nil | Nil | Nil |

| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Proposed | carriedout | Top soil used for Afforestation. |
|----|-------------------------------------------------------------------------------------------|----------|------------|----------------------------------|
| 5d | Total area fully reclaimed and rehabilitated | Nil | Nil | Nil |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | _ | _ | No comments. |

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). | Submitted regularly | Submitted regularly | No comments. |
| 6b | Area available for rehabilitation (ha) . | Nil | Nil | Nil |
| 6c | afforestation done (ha). | 1.60 ha | 5.0 ha | No comments |
| 6d | No. of saplings planted during the year | 1800 saplings. | 3800 Nos(boundary area) 250 nos on(dump) | Going to plant country saplings by replacing 2000 Eucalyptus plants already planted. |
| 6e | Cumulative no .of plants | 1800 plants | 4050 plants | No comments. |
| 6f | Any other method of rehabilitation | Nil | Nil | Nil |
| 6g | Cost incurred on watch and care during the year | Rs.5,00,000/ | Rs.5,50,000/ | No comments |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | Not proposed | Nil | No commens. |

| 6j | Compliance on reclamation and rehabilitation by backfilling (iii) Afforestati on on backfilled area | Not proposed | Nil | No comments. |
|--------|-----------------------------------------------------------------------------------------------------------|--------------|--------------------------|--------------|
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | Not proposed | Nil | No comments. |
| 61 | Compliance on reclamation and rehabilitation by backfilling (v) any other specific means. | Not proposed | Nil | No comments. |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | NIL | NIL | NIL |
| 6n | Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha) | NIL | NIL | No comments. |
| 60 | Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation | NIL | NIL | No comments. |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Yes | Complied as per proposal | No comments. |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | - | - | No comments. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
| | | | | |

| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Not proposed | Minerals despatched directly to the factory. | No comments. |
|----|----------------------------------------------------------------------------------------|--------------|----------------------------------------------|--------------|
| 7b | Method of grade- wise mineral sorting i.e. manual or mechanical. | Na | Na | _ |
| 7c | Different grade of mineral sorted out at mines. | NA | AN | NIL |
| 7d | Any beneficiation process at mines | nIL | nIL | nIL |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | - | - | NIL |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------|--------------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | dumped in | Top soil dumped in lease boundary and will be used for Afforestation | No comments. |
| 8b | Concurrent use or storage of topsoil | concurrents use/ storage proposed. | carried out | Nil |
| 8C | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | proposed | Active dump available at proposed area. | Nil |
| 8đ | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | proposed . | Not carriedout | No commens. |

| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Not proposed during this year | Not carried out | no commens |
|----|-------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------|------------|
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | Initial plan proposed . | carrriedout | Nil |
| 8g | Survival rate | 80% | 85% | Nil |
| 8h | Water sprinkling on roads to control airborne dust | proposed | Water sprinkling being done regularly. | Nil. |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | - | - | Nil |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------|---------|
| 9a | Status of submission of Monthly and Annual returns | Submitted regularly | Submitted regularly | Nil |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | <pre>manager (mines) , B.Vinoth , Asst. manager</pre> | T.Shanthakumar manager (mines) , | Nil |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | As proposed | As proposed | Nil |
| 9d | Scrutiny of Annual return on afforestation | As proposed | As proposed | Nil |

| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | As proposed | as proposed | nil |
|----|-----------------------------------------------------------------------------|-------------|----------------------------------------------------------------|--------------|
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | asproposed | As proposed | nil |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | - | Ex-mine price rs.199.23 / , production Cost - Rs-199.23/ | nil |
| 9h | Scrutiny of Annual return on fixed assets | - | fixed Assets=Rs . 10168377.81 lakhs | no comments. |

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 |
| MCDR17 Rule 27(2) | 08/12/2022 | | | |

Date :

(T.PHALTHURAIRAJHEN)

Indian Bureau of Mines