MCDR INSPECTION REPORT

1.0 GENERAL:

| SN | Particulars | Details |
|----------|---|--|
| 1 | Name of the inspecting officer | J.S. Hada, AMG |
| 2 | Date of Inspection | 22.9.2017 |
| 3 | Accompayning mine official | Shri P.P. Pandey, & Mines Manager |
| | | Shri S. Venkatesh, Mining Engineer |
| | | |
| 4 | Name of the Mine | Nandini khundini Limestone Mines |
| 5 | Total Lease Area (Ha) with breakup | Total 53.57 (Ha), Non forest |
| | of Non-forest and forest land | 17.89-Govt land |
| | 1 | 35.68- BSP Land Acquired by ACC Limited |
| 6 | Mine code | 38CHG05024 |
| 7 | IBM Registration Number under rule 45 of MCDR, 1988 | IBM/18805/2014 |
| 8 | Name of the lessee, Address, | M/s ACC LIMITED |
| | phone, email and fax number | Phone. No-07882285081 |
| | | Fax.No-07882282585 |
| | | Email- <u>pinaki.pandey@acclimited.com</u> |
| 9 | Village | Nandini Khundani |
| 10 | Taluka/Mandal | Dhamdha |
| 11 | District | Durg |
| 12 | Pin code | 490036 |
| 13 | State | Chhattisgarh |
| 14 | Post office | Nandini Khundani |
| 15 | Nearest police station | Dhamdha |
| 16 | Nearest Railway station | Bhailai |
| 17 | Date of Grant of Mining Lease | 05.2.2008 |
| 18 | Date of Execution | 02.12.2008 |
| 19 | Date of opening of Mine | 20.9.2016 |
| 20 | Date of first Renewal, if applicable and its period & expiry | NA |
| | and its period & expiry | |
| | | |
| 21 | Date of second Renewal, if | NA |
| 22 | applicable and its period & expiry | NA |
| 22 | Date of submission of renewal | NA |
| | application if Mining Operations are continuing under deemed extension | |
| | continuing under deemed extension | |
| | | |
| 23 | Name of the Nominated Owner | Shri Neeraj Akhoury |
| | with Address, phone, email, fax | CEMENT HOUSE,121,MAHARSHI KARVE ROAD |
| | number and date of appointment | MUMBAI |
| | | |
| 24 | Name of the Mine Agent with | Shri Manoj Kumar Shrivastava |
| | Address, phone, email, fax number | M/s ACC LIMITED |
| | and date of appointment | JAMUL CEMENT WORKS |
| | and a spiral state of the | Email id:manoj.shivastava@acclimited.com |
| | | Phone. No-7882290569 |
| | | FAX-7882282585 |
| 25 | Name of the Mines Manager with | Shri Pinak Pani Pandey |
| 23 | Address, phone, email, fax number | M/s ACC LIMITED |
| <u> </u> | Address, priorie, citiali, lax liulibel | |

| | and date of appointment in mines | JAMUL CEMENT WORKS Email id:pinaki.pandey@acclimited.com Phone. No-7024136362 Fax. No- 7882282585 |
|----|--|---|
| 26 | Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine | Shri Subramani.Venkatesh Address: ACC Limited, Jamul P.O: Jamul Cement Works Bhilai, Durg(C.G) Mobile no-7471116120 |
| 27 | Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44. | yes |
| 28 | Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any. | 314(3)/2008-MCCM/(CZ)/MP-12 DATED 05.08.2008 PERIOD-2008-09 TO 20012-13 |
| 29 | Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any. | No.314 (3)/2012-MCCM (CZ)/MS-45 Dated 04.10.2013 Period 2013-14 to 2017-18 |
| 30 | Mineral(s) granted in lease and proved for mining | LIMESTONE |
| 31 | Method of Mining (Opencast, Underground) | Opencast Mining |
| 32 | Category (Fully Mechanised, Others or Manual) | Fully Mechanised |
| 33 | Captive/Non Captive | Captive |

Scientific Mining:

Compliance of proposals of approved mining plan/scheme of Mining. -

Exploration:

| SN | Item | Proposals | Actual work | Remarks |
|----|---|---|------------------------------|--|
| 1a | Backlog of previous year | 6 boreholes (180 meter) | 6 boreholes (180 meter) | _ |
| 1b | Exploration over lease area for Geological axis 1 or 2. | - | _ | Entire lease area is already explored under G1 |
| 1c | Exploration Agency & Expenditure in lakh Rupees during the year | Raw Materials and Planning Division Total expense of year approximation | on of ACC Ltd. during the | |

| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | NIL | NIL | Entire lease area is already explored under G1 |
|----|--|----------|---------------|--|
| 1e | Balance reserves as on 01.04.2017 | 43.74 mt | 43,739,968.3t | 31.70 tons was transported for sampling for the year 2016-17 from NK Mines. |
| | General remarks of inspecting officer on geology, exploration etc. | Nil | | |

2.0 <u>Development</u>:

| SN | ltem | Proposals | Actual work | Remarks |
|----|---|------------------------------|------------------------------|---|
| 2a | Location of development w.r.t. lease area | South west part of the lease | South west part of the lease | |
| 2b | Separate benches in topsoil, overburden and mineral (Rule 15) | Topsoil-3m Limestone-7m | Topsoil-3m Limestone-7m | |
| 2c | Stripping ratio or ore to OB ratio for year 2016-17 | 0.14 | 0.29 | |
| 2d | Quantity of topsoil generation in m3 | - | NA | Quantity is not Measurable however whatever top soil generated was used for plantation. |
| 2e | Quantity of overburden generation in m3 | 74601 | 11690.99 | Mining started in Sept 2016 only. |

| 2f | General remarks of inspecting | Nil |
|----|-------------------------------|-----|
| | officer on development of pit | |
| | w.r.t. type of deposit etc. | |
| | | |
| | | |
| | | |
| | | |
| | | |

3.0 Exploitation:

| J.U <u>I</u> | Exploitation: | | | |
|--------------|---|--------------------------------|--------------------------------|--|
| | Item | Proposals | Actual work | Remarks |
| 3a | Number of pits proposed for production | 01 | 01 | |
| 3b | Quantity of ROM mineral production proposed | 103000 | 31.70 | Mining started in September 2016 only |
| 3c | Recovery of salable/usable mineral from ROM production | 100% | 100% | |
| 3d | Quantity of mineral reject generation | NA | NA | |
| 3e | Grade of mineral reject generation and threshold value declared | NA | NA | |
| 3f | Quantity of sub-grade mineral generation | NA | NA | |
| 3g | Grade of sub-grade mineral generation | NA | NA | |
| 3h | Manual / Mechanised method adopted for segregating from ROM | Mechanised | Mechanised | |
| 3i | Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject | NA | NA | |
| 3 <u>j</u> | Provision of drilling & blasting in mineral benches | Deep hole and blasting | Deep hole and blasting | |
| 3k | Provision of mining machineries in mineral benches | Excavators, Dumpers/Tippers | Excavators, Dumpers/Tippers | |

| 31 | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | yes | yes | |
|----|--|-----------------|---------------|---|
| 3m | Total area covered under excavation/pits | 11.80ha | 11.80ha | |
| 3n | Ore to OB ratio for the pit/mine during the year 2016-17 | 0.072 | 0.16 | |
| 30 | Total area put in use under different heads at the end of year | 15.29 | 20.51 | |
| 3р | Production of ROM mineral during last five-year period, as applicable | 2,51,8,097 Tons | 31569.07 Tons | Current year till 1 st April to 31 st August 2017 |
| 3q | General remarks of inspecting officer on method of mining etc. | Nil | | |

4.0 Solid Waste Management-Dumping:

| SN | Item | Proposals | Actual work | Remarks |
|----|--|-----------|-------------|---------|
| 4a | Separate dumping of topsoil, OB & mineral reject | Yes | Yes | |

| | (Rule 32, 33) | | | |
|----|---|---|--|---|
| 4b | Location of topsoil, OB & mineral reject dumps | North Eastern part of the lease | North Eastern part of the lease | Top soil and OB Material dumped along the mine boundary |
| 4c | Number of dumps within lease area and outside lease area | Along the lease boundary within lease | Along the lease boundary within lease | |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Outside UPL | Mostly Outside UPL | Small quantity in NE within UPL which is a temporary dump. |
| 4e | Number of active & alive dumps | 1 | 1 | |
| 4f | Number of dead dumps | NIL | NIL | |
| 4g | Number of dumps stabilised | NA | NA | OB and Top soil is dumped all along the mine boundary as a safety barrier for local inhabitants |
| 4h | Whether Retaining wall or garland drain all along dumps are there | Garland drains To be formed along the dump | Garland drains Formed along the dump | |
| 4i | Length of Retaining wall or garland drain all along dump | - | - | |
| 4j | Number of settling ponds | Nil | NA | |
| 4k | Specific comments of inspecting officer | Nil | | |

5.0 Solid Waste Management-Backfilling:

| SN | Item | Proposals | Actual work | Remarks |
|----|--|-----------|-------------|---|
| 5a | Status on part or full extraction of mineral from mined out area before starting backfilling | NA | NA | Mining operation started from sept-2016 |
| 5b | Area under backfilling of mined out area | NA | NA | Mining operation started from sept-2016 |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32) | NA | NA | Mining operation started from sept-2016 |
| 5d | Total area fully reclaimed & rehabilitated | NA | NA | Mining operation started from sept-2016 |
| 5e | General remarks of inspecting officer on backfilling, reclamation etc | Nil | | |

6.0 Progressive Mine Closure Plan:

| SN | Item | Proposals | Actual work | Remarks |
|----|--|-------------|-------------------------|--|
| 6a | Whether Annual report on PMCP submitted on time and correctly - Rule 23E (2). Details should be given in the format as given in Annexure-20. | - | Submitted 29.09.2017 | |
| 6b | Management of worked/mined out benches | NA | NA | No plantation was done |
| | i) Area available for rehabilitation (ha) | NA | NA | inside the Mine boundary |
| | ii) Afforestation done (ha) | 0.6 | 0.12 | during 2016-17 except 800 nos |
| | | 1500 | 0.00 | of plantation |
| | iii) No. of saplings planted during the year | 4500 | 00 | done outside the Lease |
| | iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year (Rs in Lakhs) | NA 13.00 | NA 2.1 | boundary. In current year 2017-18 done plantation of 2400 nos. |
| 6c | Compliance on reclamation and rehabilitation by backfilling | NA | NA | |
| | i) Voids available for backfilling (L X B X D) | NA | NA | |
| | ii) Void filled by waste/tailings | NA | NA | |
| | iii) Afforestation on the backfilled area | NA | NA | |
| | iv) Rehabilitation by making water reservoir | NA | NA | |
| | v) Any other specific means | NA | NA | |

| 6d | Compliance of Rehabilitation | NA | NA | |
|----|--|-----|----|--|
| | of waste land within lease | | | |
| | i) Afforestation | NA | NA | |
| | ii) Area rehabilitated (ha) | NA | NA | |
| | iii) Method of rehabilitation | NA | NA | |
| 6e | Compliance of Environmental monitoring (core zone & buffer zone) | | | A detail environmental study of Nandini khundini Mines done and the details is submitted in modification of mine plan (pls Refer Annexure- 12,13 & 23) |
| | General remarks of inspecting officer on PMCP compliance & progressive | Nil | | |

7.0 Mineral Conservation:

| SN | Item | Proposals | Actual work | Remarks |
|----|--|--------------|--------------|---------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | ROM dispatch | ROM dispatch | |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical | N.A | N.A | |
| 7c | Different grade of mineral sorted out at mines | N.A | N.A | |
| 7d | Any beneficiation process at mines | NA | NA | |
| 7e | General remarks of inspecting officer on Mineral conservation & beneficiation issues | Nil | | |

8.0 Environment:

| SN | Item | Proposals | Actual work | Remarks |
|----|--|---|---|---|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Yes | Yes | Top soil available in minor quantity is removed is stored separately and is utilised in plantation along the Mine boundary. |
| 8b | Concurrent use or storage of topsoil | Yes | Yes | |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Yes | Same is being complied as on scheme of mining plan. | OB Removed is dumped along the mine boundary and also on the north east side of the lease. |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Nil | NA | |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Nil | NA | Mining operation was started from sep-2016 |
| 8f | Baseline information on existence of plantation & additional plantation done (Rule 41) | 1500 | 2400 | Plantation done in the current year 2017-18 |
| 8g | Survival rate | 90% | 90% | |
| 8h | Water sprinkling on roads to control airborne dust | Water tanker of adequate capacity will be provided. | complied | |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines are | Nil | | |

9.0 Compliance of Rule 45:

| S. N. | ltem | COMMENTS | Remarks |
|----------|----------------------------|---------------------------------------|---------|
| 9a | Status of submission of | MR – Online submitted from April 2017 | |
| | Monthly and Annual returns | AR- Online submitted | |

| S. N. | Item | Details GIVEN in A.R. | Observation of I/Officer | Remarks |
|----------|---|--|--------------------------|---------|
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Mines Manager: Shri P.P. Pandey, ME: Shri S.Venkatesh Geologist: Shishir Gaur | - | |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Workings: 11.8 ha Infrastructure: 0.480 ha Plantation: 0.500 ha | - | |
| 9d | Scrutiny of Annual return on afforestation | 800 plants outside lease area | - | |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade & quantity) | Mineral Rejects generation – 0 | - | |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | ROM closing stock - 0 | - | |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price & production cost | Sale Value – 0 Ex-mine price- Rs 179/t | Captive mine | |
| 9i | Scrutiny of Annual return on fixed assets | - | - | |
| 9k | Scrutiny of Annual return on mining machineries | Backhoe – 2 Trucks – 17 Water Tanker – 1 | - | |

| | Other HEM Machinery - | |
|--|-----------------------|--|
| | 2 | |
| | | |

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:-

No outstanding violation. During the current inspection no major /serious violation was observed.

(J.S. Hada) Assistant Mining Geologist