

INDIAN BUREAU OF MINES
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION
MCDR INSPECTION REPORT
Guwahati Regional Office

Mine file No : IBM/GHY/MEG/JNH/LST-14

Mine Code : 38MEG03015

Date of Inspection: 16.12.2020

General:

| | | |
|----|--|---|
| 1 | Name of the Mine | Umsoo Mootang Limestone Mines Block-V |
| 2 | Total Lease Area(Ha) with breakup of Non-forest and forest land | 128.52 Ha. |
| 3 | Mine code | 38MEG03015 |
| 4 | IBM Registration Number under rule 45 of MCDR, 1988 | IBM/929/2011 |
| 5 | Name of the lessee,Address,phone, email and fax number | M/s Dalmia Cement (Bharat) Limited |
| 6 | Village | Thangskai |
| 7 | Taluka/Mandal | Narpuh |
| 8 | District | East Jaintia Hills |
| 9 | Pincode | 793210 |
| 10 | State | Meghalaya |
| 11 | Post office | Lumshnong |
| 12 | Nearest police station | Lumshnong |
| 13 | Nearest Railway station | Badarpur |
| 14 | Date of Grant of Mining Lease | 14.12.2016 |
| 15 | Date of Execution | 21.12.2016 |
| 16 | Date of opening of Mine | 12.07.2017 |
| 17 | Date of first Renewal , if applicable and its period & expiry | N.A. |
| 18 | Date of second Renewal , if applicable and its period & expiry | N.A. |
| 19 | Date of submission of Renewal application if Mining operations are continuing under deemed extension | N.A. |
| 20 | Name of the Nominated owner with Address, phone, email,fax number and date of appointment | Sh. Venkatesan Thyagarajan, M/s Dalmia Cement (Bharat) Limited, Umsoo Mootang,Village : Thangskai, P.O. Lumshnong, District : East Jaintia Hills, Meghalaya. 793210. Email: t.venkatesan@dalmiacement.com Date of appointment : 18.05.2018 |
| 21 | Name of the Mine agent with Address, phone, email,fax number and date of appointment | Sh. Sanjay Kumar, M/s Dalmia Cement (Bharat) Limited Umsoo Mootang,Village : Thangskai, P.O. Lumshnong, District : East Jaintia Hills, Meghalaya. 793 210. Email- kumar.sanjay@dalmiacement.com Mob: 9612159689, Date of Appointment:12.07.2013 |
| 22 | Name of the Mines Manager with Address, phone, email,fax number and date of appointment | Sh.Shishupal Singh, M/s. Dalmia Cement (Bharat) Limited, Umsoo Mootang,Village : Thangskai, P.O. Lumshnong, District : East Jaintia Hills, Meghalaya. 793210. Email-singh.shishupal@dalmiacement.com Mob:7085099840, Date of Appointment: 16.05.17 |
| 23 | Name of the Mining Engineer , Qualification and total experience with Address , phone, email, fax number and date of appointment in mine | Sh.Shishupal Singh,B.E. (Mining), Experience: 21 Years M/s Dalmia Cement (Bharat) Limited, Umsoo Mootang,Village : Thangskai, P.O. Lumshnong, District : East Jaintia Hills, Meghalaya. 793210. Email-singh.shishupal@dalmiacement.com Mob:7085099840, Date of Appointment: 16.05.17 |
| 24 | Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44 | Yes Geologist: Sh.Chandrashekhar Sharma, Experience-16 Years, Date of Appointment: 19.11.2018 Mining Engineer : Sh.Shishupal Singh,B.E. (Mining), Experience: 21 yrs. Date of Appointment: 16.05.17 |
| 25 | Date of Approaval of Mining plan/Modified Mining plan with five year period & specific condition in approaval letter, if any | 1. MP-319(3)/2009 MCCM(CZ)/MP-33 date 29.01.2010 2. MOM-IBM/GHY/MEG/JNH/LST/MP-84 date 29.08.17 |
| 26 | Date of Approaval of Scheme of Mining/Modified Scheme of Mining with five year period & specific condition in approaval letter, if any | N.A. |
| 27 | Mineral(s) granted in lease and proved for mining | Limestone |
| 28 | Method of Mining(OpenCast, Underground) | Open Cast |
| 29 | Category (Fully Mechanised, Others or Mnual) | Fully Mechanized |
| 30 | Captive/Non Captive | Captive |

ing : Compliance of proposals of approved mining plan/scheme of mining(Duplication of information in existing TMIS data sheets and draft write up has

| S.N. | Items | Proposals | Actual work | Remarks |
|------|--|--|--|---|
| | Backlog of previous year | 20 (1200m) | 11 (990.54m) | |
| | Exploration over lease area for Geological axis 1 or 2 | 15 (900m) | 6 (422.80m) for Geological axis 1 | A violation letter has been issued to the lesee in this regard. |
| 1c | Exploraion Agency & Expenditure in lakh Rupees during the year | 15 Borehole of 900 mts depth | Actual work: 422.80 mtr M/s Synergy Geotech Pvt. Ltd. Nagpur. Expenditure: Rs.21.77 Lakh | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | Nil | 29.83 | |
| 1e | Balance reserves as on 01.04.2020 in Million Ton | 60.55 | 60.93 MT | |
| 1f | General remarks of inspecting officer on geology, exploration etc. | Volation letter given : 1.IBM/GHY/MEG/JNH/LST-14 dated. 23.12.2019 -Rule 11(1) & 33 | | |

| Development | | | | |
|-------------|--|--|---|---------|
| S.N. | Items | Proposals | Actual work | Remarks |
| 2a | Location of development w.r.t lease area | N-1050- N 1230 & E-1230 to E-1480 | N-434280 E-2785989 & N-434910 , E-2785323 | |
| 2b | Separate benches in topsoil , overburden and mineral(Rule 15) | Topsoil-Nil OB-704mRL to 700 mRL Limestone-704 mRL to 673 mRL | Topsoil-Nil OB Benches-704mRL to 696 mRL Limestone-696mRL 667 mRL | |
| 2c | Stripping ratio or ore to OB ratio (T/m3) | 1:0.35 | 1:0.86 | |
| 2d | Quantity of topsoil generation in m3 | NIL | 7 | |
| 2e | Quantity of overburden generation in m3 | 216049.6 | 528824.8 | |
| 2f | General remarks of inspecting officer on development of pit w.r.t type of deposit etc. | It was observed during inspection that a quarry(Approx. 240*300*20 m) has been developed towards N-NW of the Mining lease(Close to CF Boundary Pillar), however there was no such proposal in the year 2019-20 and 2020-21. Therefore a violation letter under Rule11(1) has been issued to the lesee. | | |

| Exploitation | | | | |
|--------------|---|--|--|---------|
| S.N. | Items | Proposals | Actual work | Remarks |
| 3a | Number of pits proposed for production | One | One | |
| 3b | Quantity of ROM mineral production proposed in MT | 1532657 | 1529595 | |
| 3c | Recovery of salable/usable mineral from ROM production | 100% | 100% | |
| 3d | Quantity of mineral reject generation | Nil | 374702 T | |
| 3e | Grade of mineral reject generation and thershold value declared | Nil | CaO >34% MgO <5% | |
| 3f | Quantity of sub-grade mineral generation | Nil | Nil | |
| 3g | Grade of sub-grade mineral generation | Nil | Nil | |
| 3h | Manual/Mechanised method adopted for segregating from ROM | Nil | Nil | |
| 3i | Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject | No Proposal | Nil | |
| 3j | Provision of drilling & blasting in mineral benches | Drilling dia:112mm Hole depth:10m Spacing: 6m Burden :4m Hole Charge: 6-8 kg/ton Blasting method :Slurry / Emulsion/ANFO/Ratio of primer/booster charge and ANFO/column charge will be 10-20:90-80, MS delay detonators /Nnonel/Relays with cordex detonating fuse/electric detonator | Drilling dia:112mm Hole depth: 9.0 m Spacing: 4.5 Burden : 3.5 Hole Charge: 6.5 kg /ton Blasting method : Primer Charge- Cap sensitive explosive (Nitrate mixture)- Slurry /Emulsion Column Charge- Non Cap sensitive explosive (Nitrate mixture)- Slurry / Emulsion/ANFO | |

| | | | | |
|----|--|---|---|--|
| | Provision of mining machineries in mineral benches | Drilling Machine-2 Excavator Back Hoe-4 Excavator Front end loading-2 Hyva Tipper-04 Volvo Dumper-10 Water Tanker-01 Explosive Van-01 Maintenance van -01 Rock Breaker-01 Ambulance-01 | Drilling Machine-2 Excavator Back Hoe-2 Excavator Front end loading-1 Hyva Tipper-04 Volvo Dumper-6 Water Tanker-01 Explosive Van-01 Maintenance Van -01 Rock Breaker-01 Ambulance-01 Dozer-01 Compactor-01 HSD Tanker-01 | |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | OB-6m, Ore-9m | OB-6m, Ore-9m | |
| 3m | Total area covered under excavation / pits in Hec. | 22.74 | 17.97 | |
| 3n | Ore to OB ratio for the pit/mine during the year | 1:0.35 | 1:0.86 | |
| 3o | Total area put in use under different heads at the end of year in Hec. | 43.94 | 28.0 | |
| 3p | Production of ROM mineral during last five year, as applicable in MT | 2015-16: NIL 2016-17: NIL 2017-18: 876581.00 MT 2018-19: 1290272.00 MT 2019-20: 1532657.00 MT | 2015-16: NIL 2016-17: NIL 2017-18: 543391.0 MT 2018-19: 1244150.00 MT 2019-20: 1529595.00 MT | |
| 3q | General remarks of inspecting officer on method of mining etc | | | |

Solid Waste Management- Dumping

| S.N. | Items | Proposals | Actual work | Remarks |
|------|--|---|---|----------------------------|
| 4a | Separate dumping of topsoil, OB & mineral reject (Rule 32, 33) | N.A. | Yes, Separate dumping for OB/Mineral Reject/Topsoil | |
| 4b | Location of topsoil, OB & mineral reject dumps | OB- N25°10'51.9"-E92°21'19.8" and N25°11'6.2"-E92°21'53.2" Topsoil - No proposal | OB- N25°11'2.0"-E92°21'24.5" & N25°10'52.0"-E92°21'44.5" High MgO Limestone Stack- N25°11'2.0"-E92°21'44.4" and N25°11'10.0"-E92°21'36.1" Topsoil- N25°11'17.4"-E 92°21'11.8" N25°11'17.8"-E 92°21'11.34" | |
| 4c | Number of dumps within lease area and outside lease area | 1 | 1 | No dump outside lease area |
| 4d | Location of dumps w.r.t ultimate pit limit (Rule 16) | N25°10'51.9"-E 92°21'19.8" & N25°11'6.2"-E92°21'53.2" Topsoil - No proposal | N25°11'2.1"-E92°21'24.5" and N25°10'52.0"-E92°21'44.5" Topsoil-N25°11'17.4"-E 92°21'11.8" | With in UPL |
| 4e | Number of active & alive dumps | 1 | 1 | Only one waste dump |
| 4f | Number of dead dumps | Nil | Nil | |
| 4g | Number of dumps stabilised | Nil | Nil | |
| 4h | Whether Retaining wall or garland drain all along dump | Retaining wall : 0.02 Ha Garland Drain:0.004Ha | Retaining wall: 169 Garland drain :369m | |
| 4i | Length of Retaining wall or garland drain all along dump | Retaining wall : 0.02 Ha Garland Drain:0.004Ha | Retaining wall: 169 Garland drain :369m | 119m |
| 4j | Number of settling ponds | 0.004 Ha | Nil | |
| 4k | Specific comments of inspecting officer on waste dump management | It was observed that dumps have crossed Mining Lease Boundary. Therefore a violation letter issued for violations of MCDR-2017 against Rule11(1) dated 24.09.2020 | | |

Waste Management- Backfilling

| S.N. | Items | Proposals | Actual work | Remarks |
|------|--|---|-------------|--|
| 5a | Status on part or full extraction of mineral from mined out area before starting backfilling | Nil | Nil | The mine is not mature till the date of backfilling. So, no proposal of backing in the reporting year. |
| 5b | Area under backfilling of mined out area in Sq. mtr. | Nil | Nil | The mine is not mature till the date of backfilling. So, no proposal of backing in the reporting year. |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mined out area | Nil | Nil | The mine is not mature till the date of backfilling. So, no proposal of backing in the reporting year. |
| 5d | Total area fully reclaimed & rehabilitated | Nil | Nil | The mine is not mature till the date of backfilling. So, no proposal of backing in the reporting year. |
| 5e | General remarks of inspecting officer on backfilling , reclamation etc | The mine was opened on 10.07.2017 and the mine is not mature till date. | | |

Progressive Mine Closure Plan

| S.N. | Items | 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 | As per Rule26(2) PMCP report to be submitted before 1st day of July every year. | Submitted for the reporting year. | |
| 6b | Management of worked /mined out benches i)Area available for rehabilitation (ha) ii)Afforestation done(ha) ii) No. of saplings planted during the year iv)Cumulative no. of plants v) Any other specific method of rehabilitation vi)Cost incurred on watch & care during the year | i) NA ii) NA iii) NA iv) NA v) Nil vi) NA | i) NA ii) NA iii) NA iv) NA v) Nil vi) NA | |
| 6c | Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii)Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means | i) NA ii) NA iii) NA iv) NA v) Nil vi) NA | i) NA ii) NA iii) NA iv) NA v) Nil vi) NA | |
| 6d | Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated(ha) iii) Method of rehabilitation | i)500saplings within the lease area ii) 0.80 Ha iii)Green Belt Development | i)1559 Saplings planted within lease area ii) 0.64 Ha. iii) Green Belt Development | |
| 6e | Compliance of Environmental monitoring (core zone & buffer zone) | Proposal of Quarterly Monitoring given for Air,Noise and Water Qaulity | Monitoring is done as per the proposal. | |
| 6f | General remarks of inspecting officer on PMCP compliance & progressive closure operations | The lessee has carried out the afforestation and enviornmental monitoring as per the proposal. | | |

Mineral Conservation

| S.N. | Items | Proposals | Actual work | Remarks |
|------|--|--|---|---------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Produced ROM will be directly sent to the Crusher from the mine | Produced ROM has directly sent to the Crusher from the mine | |
| 7b | Method of grade -wise mineral sorting i.e manual or mechanical | Mechanical | Mechanical | |
| 7c | Different grade of mineral sorted out at mines | Nil | Nil | |
| 7d | Any beneficiation process at mines | Nil | Nil | |
| 7e | General remarks of inspecting officer on Mineral conservation & beneficiation issues | No proposal of Mineral beneficiation was given for the reporting year. | | |

Environment

| S.N. | Items | Proposals | Actual work | Remarks |
|------|---|-------------|--|--|
| 8a | Separate removal and utilization of topsoil (Rule 32) | No Proposal | 4140 m3 | Generated topsoil was used for plantation, Therefore, no permanent storage |
| 8b | Concurrent use or storage of topsoil | No Proposal | No permanent storage, used concurrently | |
| 8c | Separate dumps for overburden , waste rock , rejects and fines(Rule 33) | Yes | OB Dump-2 Benches From 684 mRL to 696mRL High MgO limestone Stack-2 Benches from 686 mRL to | |

| | | | | |
|----|--|--|---|--|
| | Use of overburden , waste rock, rejects and fines dumps for restoring the land to its original use | Nil | Nil | |
| 8e | Phased restoration , reclamation and rehabilitation of lands affected by mining operations(pits, dumps etc) | Nil | Nil | |
| 8f | Baseline information on existence of plantation & additional plantation done(Rule 41) | 500 | 559 saplings planted along safety zone | |
| 8g | Survival rate | 80% | 70% | |
| 8h | Water sprinkling on roads to control airborne dust | Water Sprinkling on roads to control the dusts were proposed. | Yes, Water sprinkler provided along haul road in addition to 12 KL water tanker | |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | Lessee has planted 559 nos. of saplings along the lease boundary. And has carried out water sprinkling inside mine to control the dust. This sustains the aesthetic beauty of the mine | | |

Compliance of Rule 45

| S.N. | Item | Comments | | Remarks |
|------|---|--|--|---------|
| 9a | Status of submission of Monthly and Annual returns | Monthly Return submitted upto | Nov-20 | |
| | | Annual Return submitted upto | FY- 2019-20 | |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | 1. Mines Manager-Sh. Shishupal Singh 2. Mining Engineer-Sh. Shishupal Singh, 3. Geologist- Sh. Chandrashekar Sharma | 1. Mines Manager-Sh. Shishupal Singh 2. Mining Engineer-Sh. Shishupal Singh, 3. Geologist- Sh. Chandrashekar | |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Pit: 22.74 Dump: 17.20 Infrastructure: 2.80 Green Belt: 1.20 Total : 43.94 | Pit: 17.97 Ha. Dump: 8.97 Others: 0.510 Total: | |
| 9d | Scrutiny of Annual return on afforestation | Saplings: Within Lease: 500 | Saplings : 559 with survival rate of 70% | |
| 9e | Scrutiny of Annual return on mineral reject generation(Grade & Quantity) | Nil | 374702 (CaO<34 & MgO>3.84 | |
| 9f | Scrutiny of Annual return on ROM stock and/ or graded ore | Opening Stock-0.00 Production-1529595.00 Dispatch-1529595.00 Closing Stock-0.00 There is no separate stock for graded ore. | Opening Stock-0.00 Production-1529595.00 Dispatch-1529595.00 Closing Stock-0.00 There is no separate stock for graded ore. | |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price & production cost | Ex-Mine Price- 297.65 rupees | Crossed checked it from returns and found it correct. | |
| 9i | Scrutiny of Annual return on fixed assets | Rs. 3269417126.00 | Verified from the asset register and found correct. | |
| 9k | Scrutiny of Annual return on mining machineries | 1. Shovel-1 2. Backhoe-2 3. Dumper-6 4. Tipper-6 5. Rock Drill-2 6. Air Compressor-2 7. Crusher-1 8. Dozer-1 | Verified from the submitted annual machinery statement. | |

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

It was observed during inspection that a quarry (Approx. 240*300*20 m) has been developed towards N-NW of the Mining lease (Close to CF Boundary Pillar), however there was no such proposal in the year 2019-20 and 2020-21. Therefore a violation letter under Rule 11(1) has been issued to the lessee. The last violation was issued dated 19.10.2020 against Rule-11(4) whose compliance is under process.


 Name of inspecting officer with designation and date