

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/LST/BRG/MCDR-2/BBS

Mine code : 38ORI12002

- (i) Name of the Inspecting : **K013**) **KEWAL KRISHAN**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Sri Pradeep Sahoo (Manager)
Official with
Designation
- (iv) Date of Inspection : 13/02/2021
- (v) Prev.inspection date : 18/09/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DUNGRI**
- (b) **Registration NO.** : **IBM/256/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : BARGARH
- Village : DUNGRI
- Taluka : BHATLI
- Post office : DLQ COLONY CAMPUS
- Pin Code : 768052
- FAX No. : 06646-264144
- E-mail : neeraj.akhoury@acclimited.c
- Phone : 06646-264144 ,264130
- (f) Police Station : Ambabhona
- (g) First opening date : 04/04/1966
- (h) Weekly day of rest : SUN
2. Address for : DUNGRI LIME STONE QUARRY
correspondance AT/PO-D.L.Q. COLONY CAMPUS
DIST-BARGARH
3. (a) Lease Number : ORI0002
- (b) Lease area : 502.21
- (c) Period of lease :
- (d) Date of Expiry : 31/03/2030
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : M/S ACC LTD.
 DUNGRI LIMESTONE QUARRY PO:
 DUNGRI, DIST: BARGARH
 BARGARH ORISSA
 Phone:06646-264144
 FAX :06646-264130

Owner : Neeraj Akhoury, Nominated Owner
 Cement House 121, M.K.
 Road, Mumbai Maharastra
 MUMBAI (SUBURBAN)
 MAHARASHTRA
 Phone: 06646264130
 FAX : 06646264130

Agent : Manoj Kumar Shrivastava
 ACC campus Bargarh BARGARH
 ORISSA
 Phone: 9777447500
 FAX : 06646264130

Mining Engineer

Name : Sujoy Kundu, Full Time
 Qualification : B.tech (Mining)
 Appointment/ : 12/07/2019
 Termination date

Geologist

Name : Jagannath Behera, Full Time
 Qualification : M.Sc in Geology
 Appointment/ : 26/10/2017
 Termination date

Manager

Name : Sabyasachi Mishra
 Qualification : BE(Mining)
 Appointment/ : 05/10/2018
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	21/08/2002
Plan/Scheme of Mining	:	Renewal under rule 24 MCR1960	29/12/2005
	:	FMCP under 23C(1)	29/12/2005
	:	Mining Scheme rule 12 MCDR1988	04/06/2010
	:	Mining Scheme rule 12 MCDR1988	02/06/2015
	:	FMCP under 23C(1)	04/05/2016
	:	MP modif under MCR 1960	27/06/2016
	:	MP review under 17(1) MCR 2016	16/12/2019

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal of drilling during the year 2018-19 and 2019-20	No proposal of drilling during the year 2018-19 and 2019-20	There are no proposal of boreholes during the year 2018-19 & 2019-20.
1b	Exploration over lease area for geological axis 1 or 2	No proposal	As per approved document dated 10/4/2019, area under G1 is 218.128 ha and G2 is 210.778 ha (non- mineralized)	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No such proposal	No such proposal	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No such proposal	No such proposal	The mineralized area has been already explored up to G1 level as per the document approved on 10/4/2019
1e	Balance reserve as on 01/04/20	In the modification of review of mining plan approved on 10/4/2019, the reserves/reso urces as 28/2/2019 Reserves 19.667million tonnes and Resources are 16.636 million tonnes	Reserves 18.71 million tonnes and resources 16.63 million tonnes	Reserves/resources based on the document approved on 10/4/2019,

1f	General remarks of inspecting officers on geology, exploration etc	The lease area is mainly occupied by Limestone and shale with Holsari quartzite running almost parallel to the western boundary of the lease area. No exploration was proposed in the modified Review of Mining Plan for the period 2019-2020. The potential mineralized area has been already almost explored
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	quarry No.5&6 E-330 to 1000 N-4500 to 4850	quarry No.5&6 E-330 to 1000 N-4500 to 4850	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in topsoil, overburden and mineral.	Separate benches in topsoil, overburden and mineral.	
2c	Stripping ratio or ore to OB ratio	1:1.32	1:1.66	Due to clay mixed Limestone overcome while excavation, the striping ratio increased slightly.
2d	Quantity of topsoil generation in m3	20580	17250	Due to less demand limestone at Plant, excavation of top soil was also less.
2e	Quantity of overburden generation in m3	1074775	706271	Issued violation under rule 11(1) of MCDR 2017.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The development activities are carried out in two quarry ie quarry no 5 and quarry no 6 and the location of development is as per the approved document.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Quarry No.5&6	Quarry No.5&6	
3b	Quantity of ROM mineral production proposed	23,71,095 T	12,17,298 T	Issued violation under rule 11(1) of MCDR 2017
3c	Recovery of sailable/usable mineral from ROM production	14,36,032 T	9,56,849 T	Issued violation under rule 11(1) of MCDR 2017
3d	Quantity of mineral reject generation	9,35,063 T	2,40,449 T	Issued violation under rule 11(1) of MCDR 2017.
3e	Grade of mineral rejects generation and threshold value declared.	34% to 40% CaO	34% to 40% CaO	
3f	Quantity of sub grade mineral generation.	9,35,063 T	2,40,449 T	Issued violation under rule 11(1) of MCDR 2017
3g	Grade of sub grade mineral generation	34% to 40% CaO	34% to 40% CaO	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposal	No such proposal	
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting	Drilling and blasting	Blasting is done by using ANFO and slurry explosives with NONEL. The latest initiation technique i.e., NONEL is used to control ground vibration, noise and air blast.
3k	Provision of mining machineries in mineral benches	Back Hoe-6 Nos. Froent End Loader: 1 Dumper: 19 Blast hole drill: 2 Dozer: 1 Grader :1 etc.	Back Hoe-6 Nos. Froent End Loader: 1 Dumper: 19 Blast hole drill: 2 Dozer: 1 Grader :1 etc.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	9m high benches height is proposed	Maintained as proposed	
3m	Total area covered under excavation/pits	Area under O/c at the end of plan period 2019-20 ,172.18 ha	Area under O/c at the end of plan period 2019-20 , 112.85 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:1.32	1:1.66	

3o	Total area put in use under different heads at the end of year	As per approved modification of mining plan the area under different activities at the end of plan period is as follow 1. Area under Mining including bund : 172.18ha 2. Waste dump 57.94ha 3. Mineral Storage : 13.59ha 4. Infrastructure (Workshop, Admin. Building etc): 3.97ha 5. Road : 8.50ha 6. Railway 3.44 ha 7. Others (retaining wall/ garland drain/ planation in safety zone etc : 17.92ha	1. Area under Mining : 112.85ha 2. Waste dump 57.94ha 3. Mineral Storage : 13.50ha 4. Infrastructure (Workshop, Admin. Building etc) : 3.97ha 5. Road : 8.50 ha 6. Railway : 3.44ha 7. Others : 17.92ha	Issued violation under rule 11(1) of MCDR 2017
3p	Production of ROM mineral during the last five year period as applicable	2015-16 = 14,11,943 MT 2016-17 = 14,24,781 MT 2017-18 = 14,25,350 MT 2018-19 = 20,82,621 MT 2019-20 = 23,71,095 MT	2015-16 = 6,90,535 MT 2016-17 = 7,53.968MT 2017-18= 8,49,520 MT 2018-19= 10,79,704M 2019-20 = 12,17,298 MT	

3q	General remarks of inspecting officers on method of mining etc.	The method of mining is category A and is fully mechanized. The ROM production is carried out by opencast mining methods in two quarries ie quarry no 5 and quarry no 6.
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping for overburden and mineral reject/subgrade envisaged	Separate dumping for overburden and mineral reject/subgrade envisaged	
4b	Location of topsoil, OB and mineral reject dumps	Overburden : Back filling at Quarry No. 5 &6 Mineral Reject : E-850- 1220, N-4200-4550 No proposal for top soil storage	as per proposal	During mining operation overburden generated is back filled in the mined out area and top soil spread over backfilled area for plantation.
4c	Number of dumps within lease area and outside of lease area	No such proposal	Simultaneously backfilling of mined out area is being carried out	10 Nos. of old dumps lying within the lease area and are mostly rehabilitated by plantation.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No such proposal	Simultaneously backfilling of mined out area is being carried out.	10 Nos. of old dumps lying within the lease area and are mostly rehabilitated by plantation.
4e	Number of active and alive dumps.	No such proposal	Simultaneously backfilling of mined out area is being carried out	No external dumping is carried out

4f	Number of dead dumps.	No such proposal	There are 110 Nos. of old dumps lying within the lease area and are mostly rehabilitated by plantation	10 Nos, dead dumps inside Mining lease area and stabilized by plantation
4g	Number of dumps established.	No such proposal	10 Nos, dead dumps inside Mining lease area are stabilized by plantation	10 Nos, dead dumps inside Mining lease area are stabilized by plantation
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall all around the dead dumps.	as per proposal	Retaining wall / garland drain all along dumps has been constructed
4i	Length of Retaining wall or garland drain all along dumps	Retaining Wall: 1196 M. Garland Drain : 910 M.	as per proposal	
4j	Number of settling ponds	no such proposal	no such proposal	
4k	Specific comments of inspecting officer on waste dump management			No external dumping of overburden is proposed during the year 2019-20. Overburden produced is simultaneously backfilled in the mined out area. 10 nos of dead dumps inside Mining lease area are stabilized by plantation.

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Simultaneously back filling of the mined out area	as per proposal	

5b	Area under backfilling of mined out area	7.71 ha	4.90 ha	Issued violation under rule 11(1) of MCDR 2017
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	To be used for as per proposal plantation over backfilled area.		
5d	Total area fully reclaimed and rehabilitated	4.43 ha	4.50 ha	Plantation on reclaimed area by backfilling
5e	General remarks of inspecting officers on backfilling and reclamation etc.	The party has proposed the reclamation of mined out area of 7.71 ha during the year. But the same has not been completed fully. violation letter has been issued regarding the non-compliance of proposal.		

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).	Submit before 1st July	submitted	
6b	Area available for rehabilitation (ha) .	5.94	6.01	
6c	afforestation done (ha).	5.94	6.01	
6d	No. of saplings planted during the year	14850	15025	
6e	Cumulative no .of plants		398102	

6f	Any other method of rehabilitation	Plantation	Plantation	
6g	Cost incurred on watch and care during the year	6.2 lakh	9.8 lakh	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	No such proposal.	No such proposal.	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	7.71 Ha	4.90 Ha	Issued violation under rule 11(1) of MCDR 2017
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	4.43 Ha	4.50 Ha	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposal	No such proposal	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No such proposal	No such proposal	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No such proposal	No such proposal	

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No such proposal	No such proposal	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No such proposal	No such proposal	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical monitoring of environmental parameters are proposed	Carried out as per proposal	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The party has not carried out the compliance as proposed in the document. Violation letter has been issued accordingly.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	The ROM will be fed to the dry crushing plant which will be reduced to the -50mm and will be directly used in the captive plant for manufacturing of cement.	The ROM will be fed to the dry crushing plant which will be reduced to the -50mm and will be directly used in the captive plant for manufacturing of cement.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanically	Mechanically	

7c	Different grade of mineral sorted out at mines.	Cement grade Lime stone	Cement grade Lime stone	
7d	Any beneficiation process at mines .	No such proposal	No such proposal	Crusher is used for sizing
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Dungri Limestone quarry is a captive mine .The limestone produced from this mine is used for manufacturing of cement at Bargarh Cement works of M/S ACC Ltd. The ROM produced is fed to the dry crushing plant which will be reduced to the -50mm and will be directly used in the captive plant for manufacturing of cement.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	20,580M3 top soil will be used for plantation purpose.	17,250 M3 topsoil used/ spread over back fill area for plantation.	
8b	Concurrent use or storage of topsoil	For plantation as per proposal over backfilled area		

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Overburden generated during mining operation will be back filled in mined out pit	Overburden generated during mining operation has been filled in mined out pit	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Overburden generated during mining operation will be back filled in mined out pit	Overburden generated during mining operation has been back filled in mined out pit	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Afforestation on the backfilled area 7.71ha	Afforestation on the backfilled area 4.90 ha	Issued violation under rule 11(1) of MCDR 2017
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Not Specified	Number of saplings planted during the year was 15,025Nos. Cumulatively 3,98,102 Nos. plants planted within the lease area.	
8g	Survival rate	Not specified	Survival rate within lease area is about 80%	
8h	Water sprinkling on roads to control airborne dust	water sprinklers for dust suppression is proposed .	as per proposal	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the mines is good because of plantation carried out by the and by regular sprinkling of water on mine roads to control the dust.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule Monthly and Annual Returns are to be submitted to IBM	submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	The employment status of mining Engineer , geologist and Mine manager is furnished in the annual return	information furnished	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Information has been furnished regarding the land use the annual return	Information has been furnished regarding the land use the annual return	
9d	Scrutiny of Annual return on afforestation	15025	Correct information furnished	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	19,35,063 T 34% to 40% CaO	19,35,063 T 34% to 40% CaO	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock of cement grade limestone at mine head 75025 T	Closing stock of cement grade limestone at mine head 75025 T	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production 403.58	Cost of production 403.58	
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (in Rs) 523983618	Value of Fixed Assets (in Rs) 523983618	

9k	Scrutiny of	Back Hoe-6	Back Hoe-6 Nos.
	Annual return on	Nos.	Froent End Loader: 1
	mining	Froent End	Dumper: 19
	machineries	Loader: 1	Blast hole drill: 2
		Dumper: 19	Dozer: 1
		Blast hole	Grader :1 etc.
		drill: 2	
		Dozer: 1	
		Grader :1 etc.	

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 11(1)	25/02/2021			

Date :

(KEWAL KRISHAN)

Indian Bureau of Mines