MCDR INSPECTION REPORT

1.0 GENERAL

SN	Particulars	Details
0	Name of inspecting office & designation	Inspection on 9/2/2016 by B.L.Gurjar DCOM while accompanying with shri subhash Chandra , Joint secretary , ministry of Mines during his visit.
1	Name of the Mine	Jamul Cement Works Limestone Mine
2	Total Lease Area (Ha) with breakup of Non-forest and forest	269.95 Ha, Forest Land: Nil.
3	Mine code	38MPR13001
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/256/2011
5	Name of the lessee, Address, phone, email and fax number	Jamul Cement Works, ACC Limited, Durg, CG-490024 Ph:0788-2285081 to 2285085
6	Village	Jamul, Dhour, Kurud
7	Taluka/Mandal	Durg
8	District	Durg
9	Pincode	490024
10	State	Chhatisgarh
11	Post office	Jamul
12	Nearest police station	Jamul
13	Nearest Railway station	Bhilai Power House
14	Date of Grant of Mining Lease	04.05.1960
15	Date of Execution	Not available
16	Date of opening of Mine	12.06.1963
17	Date of first Renewal, if applicable and its period & expiry	04.05.1980
18	Date of second Renewal, if applicable and its period & expiry	04.05.2000
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment.	Shri. Harish Badami Jamul Cement Works, ACC Limited, Durg, CG-490024 Ph:0788-2285081 to 2285085 Date of appointment:13/08/2014
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Sunil Gupta, Agent & Cluster Head Jamul cement Works, ACC Limited Mail.id:sunil.gupta@acclimited.com Date of appointment: 01/05/2015

22	Name of the Mines Manager with Address, phone, email, faxnumber and date of appointment in mines	Shri. Arvind Bhaurao Zade, Manager Jamul Cement Works, ACC Limited Email id: arvindbhaurao.zade@acclimited.com Mob:07225026281 Date of appointment: 19/12/2015
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointmenT	Shri. Sanjay Kumar Sharma Jamul Cement Works, ACC Limited Email.id: sanjaykumar.sharma@acclimited.com Mob: 9752599824 Date of appointment: 24/03/2013
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Approval letter no.& Date:No.314(3)/99-MCCM©/MP-17 DATED 11.09.2000 for Mining Plan
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Date:No.DRG/LST/MPLN-116/NGP Dated 20.10.2015 for Mining Scheme upto period of 2019-20
27	Mineral(s) granted in lease and proved for mining	Limestone
28	Method of Mining(Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Fully mechanised
30	Captive/Non Captive	Captive mine

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –
1.0 Exploration

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	G1	G1	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NA	NA	

1d	Balance area to be explored to bring Geological axis in 1 or 2	NA	NA	
1e	Balance reserves as on 01.04.2016	82.02 M.Tonnes	82.02 M.Tonnes reserve & 27.83 million tonnes	
1f	General remarks of inspecting officer on geology, exploration etc.	Complete area is explored		

2.0 Development

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	ML 24A to ML21.5	ML 24A toML21.5	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	OB bench- 2 nos Mineral bench-5Nos	OB bench- 2 nos. Mineral bench-5 Nos with 37 m working depth with average bench of 6 mts .	
2c	Stripping ratio or ore to OB ratio	1:0.13	1:0.73	
2d	Quantity of topsoil generation in m^3	16834.8	19005	
2e	Quantity of overburden generation in m^3	383014.20	393561 tonnes Back filled & 28507 tonnes disposed in external dumps	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Development work is in order.		

3.0 Exploitation

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	01	01	
3b	Quantity of ROM mineral production proposed	3000000	577107.69	
3c	Recovery of salable/usable mineral from ROM production	3000000	577107.69	Production is based on market demand of cement.
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral reject generation	<34% CaO	<30 % CaO	

	and threshold value declared			
3f	Quantity of sub-grade mineral generation.	Nill	Nil	
3g	Grade of sub-grade mineral generation.	-	Nil	
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	
3j	Provision of drilling & blasting in mineral benches	For preparation of blast hole the primary drilling is done by 150 mm dia crawler mounted DTH drills. Specing-6 M. Burden- 4 M. Depth of hole 8.5 M Subgrade- 0.5 M Blasting is done in staggered pattern with SME, ANFO and NONEL.	For preparation of blast hole the drilling is done by 110 & 150 mm dia crawler mounted DTH drills. Specing: 5-7 M. Burden:3.5-4.5 M. Depth of hole 5-9 M Subgrade- 0.5 M Blasting is done in staggered pattern with SME , ANFO and NONEL .	
3k	Provision of mining machineries in mineral benches.	List of equipment is attached.		
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes the height of OB bench- 0-4.5 m Ore bench 6-8 m	Top slicing of mix bench with 3.5 mtr height and OB bench- 0-4.5 mt. Ore bench 4-8 mt. height has been maintained.	
3m	Total area covered under excavation/pits	7.0 Ha	1.7 Ha	
3n	Ore to OB ratio for the pit/mine during the year	1:0.13	1;0.73	

3o	Total area put in use under different heads at the end of year		Top soil dump:0.85 Ha waste dumps:26.61 Ha Excavation:74.56 Ha Water reservoir:11.66 Ha Road:2.1 Ha Infrastructure(Elec, Mine office,etc):2.82 Ha Built of area of new cr:2.5Ha Drainage: 4.42 Ha Green belt:7.7 Ha Backfilled area:1.96 Ha Mineral Storage:4.18 Ha Undisturbed area: 66.48 Ha Afforestation: 64.13 Ha	
3p	Production of ROM mineral during last five-year period, as applicable (in MT)	2011-12:640000 tonnes 2012-13:640000 tonnes 2013-14:715500 tonnes 2014-15:717500 tonnes	2011-12:639502.95 tonnes 2012-13:639160.02 tonnes 2013-14:639234.73 tonnes 2014-15:597173.07 Tonnes 2015-16- 5,77,107	
3q	General remarks of inspecting officer on method of mining etc.	Production is lagging as cement demand is less and plant was under expansion.		

4.0 Solid Waste Management-Dumping

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Concurrent use of top soil proposed and separate dump for has been proposed.	Concurrent use of top soil is being done and separate dumping of OB is being done.	
4b	Location of topsoil, OB & mineral reject dumps	Top soil dumps between N400-N600 and W400 TO W8000	Top soil dumps between N400-N600 and W400 TO W800	
4c	Number of dumps within lease area and outside lease area	09 nos within lease area	09 within lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	As Proposed	AS Proposed	
4e	Number of active & alive dumps	01	01	
4f	Number of dead dumps	8	8	
4g	Number of dumps stabilished	8	8	

4h	Whether Retaining wall or garland drain all along dumps are there	Garland drain provided	550-m Garland drain provided	
4i	Length of Retaining wall or garland drain all along dump	Length of garland drain all along dump is 700mtr.	Length of garland drain all along dump is 550 mtr.	
4j	Number of settling ponds	NA	NA	
4k	Specific comments of inspecting officer	Waste is properly handled and old dumps are established.		

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	Backfilling has been proposed in mined out area.	Backfilling in progress.	
5b	Area under backfilling of mined out area	0.54 Ha	0.14 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	yes	yes	
5d	Total area fully reclaimed & rehabilitated	0.54 Ha	0.5 ha	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Concurrent back filling started in matured area .		

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.	Yes	Yes	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific	Nil	Nil	

	method of rehabilitation vi) Cost incurred on watch & care during the year			
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	0.54 Nil 2500	0.14 ha Nil 2500 within lease area	
6d	Compliance of Rehabilitation of waste land within lease . i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	NA Concurrent backfilling and plantation on dump.	 Concurrent backfilling and plantation on dump.	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Enclosed	Enclosed	
6f	General remarks of inspecting officer on PMCP compliance & progressive	PMCP is being implemented properly.		

7.0 Mineral Conservation

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	yes	Based on software & blast hole sampling result different grade material has been marked at site/map/blend plan.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	NA	NA	
7c	Different grade of mineral sorted out at mines	Based on software different grade	Based on software & blasthole	

		material has been marked in slice plan.	sampling result different grade material has been marked at site/map/blend plan.	
7d	Any beneficiation process at mines	As such, limestone beneficiation is not required except for screening the clayey-soil in the top bench	Screening (dry Separation) is being done to separate clayey-soil& shale in the limestone before crushing. By using pet cock the quality requirement of plant was decreases hence screen generation was also decreases during the year.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	There is no problem of mineral conservation in mines .		

8.0 Environment

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Separate removal and utilization of topsoil is being done	
8b	Concurrent use or storage of topsoil	Yes	concurrent utilization of topsoil is being done	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Planned	Separate dumps for overburden/waste rock and rejects.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Planned	Part of waste rock, rejects are being used for concurrent backfilling for restoring the land to its original use.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining	As per mining plan.	Being done total	

	operations (Pits, dumps etc)			
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Planned	96 ha reclaimed & Rehabilited	
8g	Survival rate		80%	
8h	Water sprinkling on roads to control airborne dust		Water sprinkling on roads is being done water tanker to control airborne dust.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	EMP parameters are monitored regularly for control.		

9.0 Compliance of Rule 45

SN	Item	COMMENTS	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. , A.R. submitted upto- 2014-15 & 2015-16 submitted	

SN	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	NIl	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Current mining -74.5 ha , 96 ha reclaimed & Rehabilited , 7.2 ha used for waste disposal , 4.4 ha for other purpose .	NIl	
9d	Scrutiny of Annual return on afforestation	2500 nos within lease and 18000 nos outside lease area .	NIl	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	393561 back filled & and 28507 tonnes in external dumps .	NIl	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	577108 tonnes Rom produced -Nil stocks	NIl	

9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Rs 307.19 per tonnes	NIl	
9i	Scrutiny of Annual return on fixed assets	Given	NIl	
9k	Scrutiny of Annual return on mining machineries .	Given	NIl	

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

No serious violation is observed during the inspection.

Details of Machinery is given below

Type of machinery	Capacity of each unit	No.of units	Electrical/ Non-Electrical (specify)	Used in opencast/ underground (specify)
SHOVEL (HYDRAULIC)	5.100 CUM	2	Non Electrical	Opencast
DOZER	320.000 HP	1	Non Electrical	Opencast
DUMPER	60.000 TONNE	6	Non Electrical	Opencast
ROCK DRILL (NON-ELEC.)	115.000 MM	2	Non Electrical	Opencast
WHEEL LOADER	6.500 CUM	1	Non Electrical	Opencast
MOTOR GRADER	128.000 HP	1	Non Electrical	Opencast
ROAD ROLLER	12.000 TONNE	1	Non Electrical	Opencast
GENERATOR (DIESEL)	48.000 KWH	4	Non Electrical	Opencast
BACK HOE	2.100 CUM	1	Non Electrical	Opencast
EXPLOSIVE VAN	10.000 TONNE	1	Non Electrical	Opencast
WATER TANKER	8000.000 LITRE	1	Non Electrical	Opencast
PUMPS (ELEC.)	1300.000 L/MN	1	Electrical	Opencast

B.L.Gurjar
DCOM