INDIAN BUREAU OF MINES
MINERALS DEVELOPMEMT AND REGULATION DIVISION

MCDR INSPECTION REPORT

Hyderabad regional office

Mine file No : AP/KNL/LST-190/HYD **Mine code : 38APR11130**

(i) Name of the Inspecting Officer and ID No. : **M017) MANISH K MAINDIRATTA**

(ii) Designation : Regional Controller Mines

(iii) Accompaning mine Official with Designation : Mr. Anil Kumar K.G. Mines Manager, Mr. Shrawan Kumar

(iv) Date of Inspection : 03/03/2020

(v) Prev.inspection date : 15/02/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JSW LIMESTONE MINE**

(b) Registration NO. :

(c) Category : A Mechanised

(d) Type of Working : Opencast

(e) Postal address

State : ANDHRA PRADESH
District : KURNOOL
Village : BILAKALAGUDUR
Taluka : GADIVEMULA
Post office : GADIVEMULA
Pin Code : 518508
FAX No. :
E-mail :
Phone : 08514202304,202305

(f) Police Station : Gadivemula

(g) First opening date : 01/04/2008

(h) Weekly day of rest : SUN

2. Address for correspondance : Bilakalgudur village,
Gadivemula Mandal
Kurnool district.

3. (a) Lease Number : APR2820
(b) Lease area : 617.57
(c) Period of lease : 20
(d) Date of Expiry : 24/04/2028

4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : JSW CEMENTS
403, SAI RAM ENCLAVE
SRINIVAS NAGAR NANDYAL
KURNOOL ANDHRA PRADESH
Phone:
FAX :

Owner : NILESH NARWEKAR
MUMBAI (SUBURBAN)
MAHARASHTRA
Phone:
FAX :

Agent : ARPAN PAREKH
KURNOOL ANDHRA PRADESH
Phone:
FAX :

6. Date of approval of Mining Plan/Scheme of Mining	:	Fresh under rule 22 MCR1960	16/10/2007
		Modif.of approved Mining Plan	02/12/2008
		Modif.of approved Mining Plan	21/08/2012
		Mining Scheme rule 12 MCDR1988	07/10/2013
		MP review under 17(1) MCR 2016	27/11/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No backlog	NIL	
1b	Exploration over lease area for geological axis 1 or 2	No proposal for 2018-19	No bore hole was drilled	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil expenditure in 2018-19	
1d	Balance area to be explored to bring Geological axis in 1 or 2	---	Area Under G1= 243.90ha. G2= 60 ha. G3 = 46.67 ha. Plant established on remaining 267 hectare lease area and not having cement grade limestone.	

1e	Balance reserve as on 01/04/20	As per the document approved on 27/11/2017, Total mineral resource as on 1.09.2017= 170.437 million Tonnes (mT). Out of this reserves = 63295980T Less depletion (prod'n) during the period 1/9/2017 to 31/3/2018=572 469 T(0.572mT) 1/4/2018 to 31/3/3019=218 5997T Balance Reserve as on 1.04.2019=160 537514 T	Balance reserves as on 1.4.2019= 60.53 mT	
1f	General remarks of inspecting officers on geology, exploration etc		The G2 and G3 area to be brought under G1 level of exploration.	The plant is located in the lease area which is not having cement grade limestone. In light of new threshold value resource should be assessed accordingly in the next document in the entire lease area.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks

2a	Location of development w.r.t.lease area	2018-19 Pit No 1 N 1735366 to N1735701 & E226251 to E 226763 RL upto 220 mRL Pit no 2 N1734597 to N1734709 & E 225990 to E226755. RL upto 236 mRL	It has been observed that in 2019-20 as on 10/2/2020 Pit No 1 and 2 have broadly been developed in the proposed area.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	proposed	No top soil generation reported.The mineral reject is available on the top which is being worked as separate bench.
2c	Stripping ratio or ore to OB ratio	2018-19 = 1:0.26	2018-19=1:0.17
2d	Quantity of topsoil generation in m3	No generation assessed.	NIl
2e	Quantity of overburden generation in m3	No Overburden generation assessed	AS per mining plan 760560 Tonnes of mineral reject was to be generated against the same 376324 T of mineral reject is generated which is reported as overburden in the returns.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		The mineral is being developed in two pits with 8m high benches.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2	2	

3b	Quantity of ROM mineral production proposed	2817240 T (2018-2019)	2018-19=2054984T 2019-20=1969137(excluding waste)	
3c	Recovery of sailable/usable mineral from ROM production	2817240T of ROM ore proposed for 2018-19.	2018-19= 2027992T of C.G Lst (directly feedable) and 26992 T of Sub grade is generated. Besides this the 376324 T of mineral reject is also generated.	
3d	Quantity of mineral reject generation	2018-19= 760560T anticipated	2018-19= 2027992T of C.G Lst (directly feedable) and 26992 T of Sub grade is generated. Besides this the 376324 T of mineral reject is also generated.	
3e	Grade of mineral rejects generation and threshold value declared.	The flaggy limestone which is having CaO more than 35% and silica more than 18% is to generated as mineral reject.	The same has been generated and classified as waste in the annual returns despite the new threshold value publication.	
3f	Quantity of sub grade mineral generation.	2018-19-344400 T of subgrade generation anticipated	26992 T generated in 2018-19	(Up to 29 th Feb 2020)
3g	Grade of sub grade mineral generation	limestone which is having CaO more than 35% and silica 14-18% is expected to be generated as subgrade.	The mineral beyond threshhold value is rejected as waste and the remaining mineralreject is kept at subgrade dumps.	

3h	Manual / Mechanised method adopted for segregating from ROM		The segragation of the blasted material is done at the blast site itself. limestone quality is checked both before and after the blast.	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	2018-19- No proposal	The lessee has reported inconsistent behavior of the deposit with regard to silica percentage. It has also got the beneficiation study undertaken.	
3j	Provision of drilling and blasting in mineral benches	The large dia blasting was proposed . ANFO with slurry cartridge as base charge was proposed.	The large dia blasting is being done with 115mm drill holes. ANFOslurry explosive being used for blasting. Nonel initiation system is used to keep the vibration within the safe limits.	Waste oil utilized in blasting with AN. Burden x spacing of 4 x 5 m is used for about 8m high benches with subdrilling. Powder factor in general is 10.4 T/ks.
3k	Provision of mining machineries in mineral benches	Excavator-dumper combinationwas proposed with large dia drill machines for blast hole drilling.	Excavator of 2.3 cubic metre capacity with dumper of 27 T capacity are being used. Large dia drill machines of 115mm is used.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM		The working is done with excavator having boom height sufficient for 8m high benches	

3m	Total area covered under excavation/pits	As per document approved Total area approved under excavation till 2021-22 103.20 hectare	Area under excavation is approximately 72 hectare including old slab quarry workings.	
3n	Ore to OB ratio for the pit/mine during the year.	2018-19=1T limestone:0.26 T mineral reject	2018-19=1T Limestone :0.17 T mineral reject	In 2019-20(ROM: MR = 1:0.21)
3o	Total area put in use under different heads at the end of year	Total area put to use upto 2022-23 as per approved plan was 250.55 hectare including green belt	As per the submissions in the approved document Area put to use under different heads is appx 207 hectare	
3p	Production of ROM mineral during the last five year period as applicable	2014-15-4708289T 2015-16-4839955T 2016-17-4466422T 2017-18=4410775T 2018-19=2817240T	2014-15-1731063T 2015-16-1285454T 2016-17-1340883T 2017-18=982770T 2018-19=2054984T	2019-20= 1980371T ROM (till 29th feb 2020)
3q	General remarks of inspecting officers on method of mining etc.			

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks

4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Proposed to dump topsoil OB (flaggy Limestone) and mineral reject separately.	Mineral reject is being dumped separately as per their quality as subgrade or waste.	Top soil whereever recoverable is used for green belt development.
4b	Location of topsoil, OB and mineral reject dumps	Place earmarked for the waste dump.	Two mineral reject dumps of more than 18% silica is there on the western side of the lease along side the road. One subgrade dumps have been noticed in the south side of pit-1 near plant crusher gate	
4c	Number of dumps within lease area and outside of lease area	2 major and three minor dumps	3 dumps are there.	However the two small dumps have already been used for development of haul road.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)		All the dumps are on the mineralized zone. .	
4e	Number of active and alive dumps.		Out of three dumps, two are active and all are alive.	
4f	Number of dead dumps.	0	0	
4g	Number of dumps established.	0	0	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Retaining wall and garland drain is there along the dump-1 (active) along side road	
4i	Length of Retaining wall or garland drain all along dumps	250m proposed in 2018-19	About 600 meter retaining wall is there.	
4j	Number of settling ponds			

4k	Specific comments of inspecting officer on waste dump management			

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.	No proposal	No proposal	
5b	Area under backfilling of mined out area	No proposal	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Nil	No top soil generated. However the thin layer if possible to work separately is scrapped for further use in plantation.	
5d	Total area fully reclaimed and rehabilitated	Not Applicable	Not Applicable	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not Applicable	Not Applicable	

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).	Yes	Submitted	

6b	Area available for rehabilitation (ha) .	No proposal for mgmt. of worked out bench. No proposal for mgmt. of worked out bench. No proposal for mgmt. of worked out bench. No proposal for mgmt. of worked out bench. No proposal for mgmt. of worked out bench No proposal for mgmt. of worked out bench	Not done
6c	afforestation done (ha).	No proposal for reclamation and rehabilitation of backfilling.	Not done
6d	No. of saplings planted during the year	No proposal for reclamation and rehabilitation of backfilling.	Not done
6e	Cumulative no .of plants	No proposal for reclamation and rehabilitation of backfilling.	Not done

6f	Any other method of rehabilitation	No proposal for reclamation and rehabilitation of backfilling.	Not done
6g	Cost incurred on watch and care during the year	No proposal for reclamation and rehabilitation of backfilling.	Not done
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal for reclamation and rehabilitation of backfilling.	Not done
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal for reclamation and rehabilitation of backfilling.	Not done
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal for reclamation and rehabilitation of backfilling.	Not done
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal for reclamation and rehabilitation of backfilling.	Not done
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.		

6m	Compliance of rehabilitation of waste land within lease (i)afforestation			
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)			
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation			
6p	Compliance of environmental monitoring (core zone and buffer zone)			
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area			
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.			
7c	Different grade of mineral sorted out at mines.			

7d	Any beneficiation process at mines .	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate top soil removal and utilization proposed.	Meager quantity of Topsoil generated is used for plantation & greenery development.	
8b	Concurrent use or storage of topsoil		Concurrently used for plantation purposes as per proposal.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	overburden, waste rock, rejects and fines (Rule 33) Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use Separate top soil removal and utilization proposed. Separate dumps proposed for mineral reject, waste rock.	Separate dumps for over burden/ mineral rejects provided.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	The subgrade mineral is used after blending.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Applicable	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2018-19= 5000 saplings over 5.65 hectare	2018-19; 10100 saplings have been grown in the vicinity of plant, mine office and the Jindal vanam.
8g	Survival rate		74% in 2018-19
8h	Water sprinkling on roads to control airborne dust		10 KL tankers two in number are in use.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to jan 2020 A.R. Submitted up to 2018-19		

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Mining Engineer S K Shukla Geologist- Ritesh Chattraj	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	The breakup has been given in the returns	About 207 hectare is under pit, dump, greenbelt infrastructure, roads etc.	
9d	Scrutiny of Annual return on afforestation	2018-19- 10110 saplings for infilling plantation only.		2019-20- 10000 saplings already planted.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	The 376324 T of mineral reject is reported as waste in annual returns.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore		ROM 2054984 T found to be produced as per record in 2018-19	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost		Cost of production and ex mine price repoted as 218.45 with mining cost as 104.76 Rs PMT.	
9h	Scrutiny of Annual return on fixed assets		Submitted	
9k	Scrutiny of Annual return on mining machineries			

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

Date :

(**MANISH K MAINDIRATTA**)

Indian Bureau of Mines