



भारत सरकार GOVERNMENT OF INDIA  
खान मंत्रालय MINISTRY OF MINES  
भारतीय खान ब्यूरो INDIAN BUREAU OF MINES  
क्षेत्रीय खान नियंत्रक के कार्यालय  
OFFICE OF THE REGIONAL CONTROLLER OF MINES



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No. RMP/A/30-ORI/BHU/2021-22

Date: 17.11.2021

To

Shri Manoj Rustagi, Nominated Owner  
M/s Shiva Cement Ltd.  
At- Teleghana, P.O. Biringatoli, Tehsil- Kutra  
Dist- Sundargarh, Odisha- 770018.

Sub: Approval of Review of Mining Plan of **Khatkurbahal Limestone & Dolomite Mine** along with Progressive Mine Closure Plan (PMCP), over an area of **72.439** ha in Sundargarh district of Odisha State, submitted by M/s Shiva Cement Ltd. under Rule 17(1) of MCR, 2016.

Ref: - i) Your letter No. JNP/185/2021-22 dated 20.10.2021 received on 08.11.2021.  
ii) This office letter of even no. dated 08.11.2021.  
iii) This office letter of even no. dated 08.11.2021 addressed to Director of Mines, Government of Odisha copy endorsed to you.

Sir,

This has reference to the letter cited above on the subject. The draft Review of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on site inspection carried out on **22.09.2021** by **Shri Jitendriya Pradhan, Assistant Mining Engineer**. The deficiencies observed are enclosed herewith as Annexure I.

You are advised to carry out the necessary modifications in the draft Review of Mining Plan in the light of the contents vide Annexure I and submit:-

- (i) Three (3) firm bound copies of text in A4 size printable paper and plate/plan in hard copy. The consents and certificates by the Lease holders/Qualified Person and copy of bank Guarantee shall be attached in hard copy of document.
- (ii) Two (2) soft copies of the document in USB Pendrive. The soft copies of the document shall be digitally signed by the Qualified Person and Nominated owner. The text of document should be in excel(.xls) and word format. The plates/plans are to be submitted in .kml/.kmz/.shp format. A few sections may be submitted in .pdf format as indicated in the CCOM Circular 1/2021. All the annexures shall be submitted in soft copy.
- (iii) Financial assurance under Rule 27 of MCDR 2017.

The aforesaid final copies of document will be submitted within **15 (Fifteen)** days from the date of issue of this letter, for further necessary action.

The para-wise clarifications and the manner in which the deficiencies are attended should invariably be given while forwarding the final copies of the Review of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the Review of

Mining Plan will be considered for rejection if not submitted within above due date. It may also be noted that if the deficiencies are not attended completely, the submission would be liable for rejection without further correspondence.

भवदीय  
हरकेश मीना  
(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

Copy for kind information and further necessary action to Shri S.C.Nayak-QP (through email).

हरकेश मीना  
(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

# **Scrutiny comments of Review of Mining Plan in respect of Khatkurbahal Limestone & Dolomite Mine of M/s Shiva Cement Ltd. submitted under Rule 17 (2) of MCR, 2016.**

## **General**

1. The document should be prepared as per the mining plan template format provided in CCOM circular No.01/2021 dated 07.06.2021. No alteration/deletion/change in format of the mining plan template is allowed. Any additional information may be submitted as annexure only if required.
2. All the information in the various table columns of different chapters as per the prescribed format in the template should be furnished. No columns/rows should be left blank. If not applicable, it is to be written as not applicable.
3. The final soft copies of the document shall be digitally signed by the Qualified Person and Nominated owner.
4. The soft copy of the document should preferably be submitted in excel(.xls)/word format. The plates/plans are to be submitted in .kml/.kmz/.shp format.
5. The final copies of the text document to be submitted in 3 (three) hard bound copies in A4 size printable paper. The consents and certificates by the Lease holders/Qualified Person and copy of bank Guarantee shall be attached in hard copy of document. Three hard bound copies of plates/plans are also to be submitted. The plates/plans are to be output of AutoCAD software.
6. List of plates and annexures should be properly indexed with page nos. and in case of plates the scale should also be mentioned.

## **CHAPTER-1: GENERAL INFORMATION**

1. Para 1.1.1: Lease grant details is not correct as mentioned The Final grant 15.01.1992 to 14.01.2012 whereas the Lease deed execution is mentioned as on dated 10.11.2016.
2. Para 1.1.2: Type of Document should be mentioned.
3. Para 1.2: The Khasra No/Compartment No to be filled.
4. Para 1.3.4.1: The validity of Environmental Clearance details to be filled as it has been left blank.
5. Para 1.3.4.4: Total amount paid in respect of Land acquisition to be mentioned.
6. Para 1.3.6: The Mobile number of Owner/Nominated owner to be furnished.

## **CHAPTER-2: GEOLOGY AND EXPLORATION:**

7. The depth of ore-body estimated as shown in Geological section is not supported by BoreHoles. The profiles of ore body should be revised based on Borehole data and accordingly reserve/resource should be re-estimated.
8. All the UNFC codes furnished in Geological Plan/sections as per MEMC Rule,2015.
9. Para 2.1.4.1: The details of the ore band present in the lease area with geological features to be furnished.

10. Para 2.1.4.2: The information regarding strike length, width, dipping of ore body and extent of depth present to be furnished.
11. Para 2.2.1.4: Geochemical Survey: The analysis report to be submitted as annexure and area covered also filled.
12. Para 2.2.1.10: Chemical Analysis: The chemical analysis of samples to be submitted in CSV files which include collar file, survey file, geology log file and RQD file as annexure.
13. Para 2.2.1.13: Bulk density study report should be submitted as annexure.
14. Para 2.2.4.4: Threshold value & cut off parameters for MgO to be mentioned.
15. Para 2.2.4.11: Calculation of blocked resources for Mgo radical to be submitted.
16. Para 2.2.4.12: Calculation of reserves for Mgo radical to be submitted.
17. Para 2.2.4.13: Grade wise reserve and remaining resources estimation should be submitted. Grade between Threshold value and cutoff (34% to 40%) grade may be taken for reserve estimation and the detailed estimation should be submitted.

### **CHAPTER-3 MINERAL BENEFICIATION/PROCESSING**

18. Para 3.1: Mineralogy of the ROM study report should be submitted as annexure.
19. Para 3.3.1: Type of Crusher is mentioned as Mobile crusher. Jaw/Gyratory etc.. Specific classifications may be mentioned.
20. Para 3.7: Overall Product quality (Dry cum wet processing), detailed Chemical Analysis report with Beneficiation study should be furnished.

### **CHAPTER-4 MINING OPERATION:**

21. The profile of benches in development plan not proposed correctly in view of scientific development. Direction of advance may be marked clearly.
22. During the field inspection it was observed that in western part of the pit, bench height is more than 8 mt and accordingly the width of benches are not maintained and it is not updated in the surface plan. Benches proposed in development plan are not matching with development sections. In the view of above, year wise tentative excavation also not matched. It may be rechecked and corrected.
23. Para 4.2.2.1: Bench Parameter: The bench design should be justified and as per MMR, 1961. The copy of approval from DGMS for mining operation under regulation 106 of MMR should be submitted.
24. Para 4.3: Slope stability Study Report, Recovery Study report, Geotechnical Study report and Bulk density study report to be furnished as annexure.
25. Para 4.7.2: OB/Waste generation during the plan period, the new dumping location should be mentioned.
26. Para 4.2.2.2: Year wise Opencast development table should be changed as all of the 3 pits should come under each and every year. Page 40, there is mentioned as 2 pits Pit - 1 & 2. Same has to be corrected.

### **Chapter 7: FINANCIAL ASSURANCE/ PERFORMANCE SURETY**

27. The details of BG should be furnished. Financial Assurance amount should be calculated as per the provisions of MCDR (Amendment) Rule 2021 notified on 03/11/2021.
28. Para 7.1: Area put to use for FA Calculation has to be submitted separately for each year.

#### **CHAPTER-8: REVIEW OF PREVIOUS PROPOSALS**

29. The proposals and achievement furnished under para 8.1.2 regarding SDF and CSR expenditure needs to be reviewed and rectified properly.

#### **CHAPTER -9 : IMPACT ASSESSMENT**

This chapter should be removed as it is only required for fresh grant.

##### **Annexure**

1. Singed copy of form-I & J to be submitted.
2. Environmental monitoring reports should be submitted.
3. Surveyor certificate should be enclosed.
4. All the litho logs with chemical analysis of the all the exploration work carried out till date should be submitted.
5. Any other annexures as referred in the text should be submitted.
6. Bank guarantee as per MCDR, 2017
7. Copy of surface right granted letter.
8. Mining plan at a glance as per format attached.
9. Certificate from qualified person regarding authenticity of information submitted is to be attached.
10. The Geotechnical study report should be submitted in a single pdf file.

##### **Plates**

11. Magnetic Meridian and date of observation should be given on all relevant plans. Date of survey should be given on all plans and sections and signature should bear date of signature. All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager, Mining Engineer and Mining Geologist as per provisions of MCDR, 2017 and MMR, 1961. All plans & sections prepared should follow the conventions mentioned under MMR 1961. All plans and sections shall show a scale a scale of the plan at least twenty five centimeters long and suitably subdivided.
12. All plans and sections should be prepared on UTM grid.
13. All the plans should be submitted as hard copies and also soft copy of all plans and sections in KML/KMZ/SHP should also be submitted which were geo-referenced.
14. Progressive Mine closure plan and sections should be submitted.
15. Key Plan: The key plan should incorporate all features as mentioned Rule 32(5) (a) of MCDR 2017. The prominent wind direction to be shown by rose diagram in key plan and other relevant plans. The approach road to the lease area should be shown with Co-ordinates of extremity of lease area. The adjoining mining leases, roads, villages ,



- reserve forest boundary, predominant wind direction, within 5km should be prominently shown.
16. The lease plan submitted is not legible, a legible copy of the same to be submitted.
  17. Surface Plan: All the boundary pillar coordinates to be given UTM . All the updated boundaries of Waste dump, Mineral reject dumps to be shown on the plan. Surface right area to be shown on the plan with different type of land schedules. All the features have not been shown in the index. Common boundary with other lessees should be shown on the plan. The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017.
  18. Geological Plan & Section: (i) part geological plan and sections should be prepared on same scale i.e. 1:2000 (ii) Geo structural information has not been furnished adequately. (iii) Limit of estimation should be as per MEMC rule 2015. (iv) All the geological information to be furnished on geological plan and section based on drilled BH, exposed pit, trial pits etc with their configuration profile (dimensions) like depth. Section lines with nomenclature should be highlighted on the plan. The litho sequence should be shown as per the borehole logs data in the sections. The sections should be prepared on the same scale as prepared for plan. Proposed boreholes should be shown yearwise in different colour. Proposed boreholes should be shown in dotted line. The sections are to be in regular interval. The Geological Plan should be prepared to satisfy the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017.
  19. Development plan & Section: (i) present pit profile configuration of benches with UPL to be shown with red color and proposed development benches of each year with some other color. All development section to be submitted for which development is proposed. The proposed yearwise development area boundaries should be clearly depicted. (ii) The layout of the haul road for present and future excavation proposal should be properly addressed in line with safe movement of fleet of the machinery.(iii) The proposed and existing bench mRL to be shown clearly over year wise development plan and sections. (iv) Geological information to be furnished on development plan and sections like litho units. v) Year wise mining plan proposals should be submitted in softy copy in the format of .kml or .shp file along with document. vi) It was proposed to develop the quarry-2 during the year the year 2023-24 the same not shown in development plan..
  20. Progressive Mine Closure plan and sections: All revised year wise proposals as per comments in PMCP chapter to be depicted on the plan and sections.
  21. Conceptual plan and sections: the plan and sections should be prepared taking into consideration of the production from in-situ excavations, available reserves and resources describing the excavation, Disposal of waste, backfilling of voids, reclamation and rehabilitation measures, end of lease period etc.
  22. Environment plan: The Environment Plan as prepared should be satisfy the provision as laid down rule 32 (5) (b) of MCDR'2017. Wind rose diagram should be depicted.
  23. Financial Assurance Area Plan: The existing and additional area requirement should be separately hatched on the plan with FA table.

*A. J. J. J.*  
*17.11.21*

### MINING PLAN/REVIEW OF MINING PLAN AT GLANCE

1	<b>Name of the lessee</b>	
2	<b>IBM Registration no</b>	
3	<b>Address of lessee</b>	
4	<b>Name of Mine</b>	
5	<b>Mine code</b>	
6	<b>Lease area in hect.</b>	
7	<b>Forest area</b>	
8	<b>Name of Mineral</b>	
9	<b>Lease period from      to</b>	
10	<b>Plan proposal period-</b>	
11	<b>Mineral Reserve (111 ,121 &amp;122) in tonnes</b>	111-
		121
		122
		122

		Total	
12	<b>Mineral Resources (211, 221,222, 331, 332, 333&amp;334) in tonnes</b>	211	
		221	
		222	
		331	
		332	
		333	
		334	
		Total	
13	<b>Total (reserve +resource) in tonne</b>		
14	<b>Reserve estimation as on</b>	Date	
15	<b>Explored area in ha</b>	G1	
		G2	
		G3	
		Explored and found Non-mineralised area	
		Un-explored area	
		Total	
16	<b>Exploration proposal Year wise No. of Bore Holes</b>	1 <sup>st</sup> year	
		2 <sup>nd</sup> year	
		3 <sup>rd</sup> year	
		4 <sup>th</sup> year	
		5 <sup>th</sup> year	
17	<b>Production proposal ROM in tonnes</b>	1 <sup>st</sup> year	
		2 <sup>nd</sup> year	
		3 <sup>rd</sup> year	
		4 <sup>th</sup> year	
		5 <sup>th</sup> year	
18	<b>OB/Waste handling proposal CUM</b>	1 <sup>st</sup> year	
		2 <sup>nd</sup> year	
		3 <sup>rd</sup> year	
		4 <sup>th</sup> year	
		5 <sup>th</sup> year	
19	<b>Present EC permission in tonnes</b>		
20	<b>Present Forest clearance area in ha</b>		
21	<b>Plantation proposal in five years in numbers</b>	1 <sup>st</sup> Year:	
		2 <sup>nd</sup> Year:	
		3 <sup>rd</sup> Year:	
		4 <sup>th</sup> Year:	



		5th Year:	
		<b>Total Plantation –</b>	
22	<b>Plantation area proposal in five years (ha)</b>	1 <sup>st</sup> Year:	
		2 <sup>nd</sup> Year:	
		3 <sup>rd</sup> Year:	
		4 <sup>th</sup> Year:	
		5 <sup>th</sup> Year:	
		<b>Total Plantation -</b>	
23	<b>Back filling proposal in hectares in five years (year wise)</b>	1 <sup>st</sup> Year:	
		2 <sup>nd</sup> Year:	
		3 <sup>rd</sup> Year:	
		4 <sup>th</sup> Year:	
		5 <sup>th</sup> Year:	
24	<b>Check Dams numbers in five years (year wise)</b>	1 <sup>st</sup> Year:	
		2 <sup>nd</sup> Year:	
		3 <sup>rd</sup> Year:	
		4 <sup>th</sup> Year:	
		5 <sup>th</sup> Year:	
25	<b>Garland drain in meters five years (year wise)</b>	1 <sup>st</sup> Year:	
		2 <sup>nd</sup> Year:	
		3 <sup>rd</sup> Year:	
		4 <sup>th</sup> Year:	
		5 <sup>th</sup> Year:	
26	<b>Settling ponds (Numbers) (year wise)</b>	1 <sup>st</sup> Year:	
		2 <sup>nd</sup> Year:	
		3 <sup>rd</sup> Year:	
		4 <sup>th</sup> Year:	
		5 <sup>th</sup> Year:	
27	<b>Total Area put to use in mining and allied activity at end of five year in ha.</b>		
28	<b>Bank Guarantee Amount Rs</b>		
29	<b>Validity of BG up to</b>		