

भारत सरकार
खान मंत्रालय
भारतीय खान ब्यूरो
क्षेत्रीय खान नियंत्रक का कार्यालय

No. MS/OTFM/21-ORI/BHU/2016-17

Plot No. 149, Pokhariput
Bhubaneswar – 751 020
Date: 10.04.2017

To

✓ Shri Rajendra Prasad Gupta,
Managing Director,
M/s Siva Cement Ltd,
P-25, Civil Township, Rourkela,
Odisha – 769004

Sub: Approval of Review of Mining Plan of Khaturbahal Lst & Dol 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 Siva Cement Ltd under Rule 17 of MCR, 2016.

Ref: - i) Your letter No. 3006/104 dated 20.03.2017 received on 30.03.2017.
ii) This office letter of even no. dated 31.03.2017.
iii) This office letter of even no. dated 31.03.2017 addressed to Director of Mines, Government of Odisha copy endorsed to you.

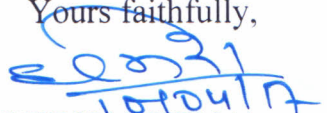
Sir,

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 earlier site inspection dated 07.12.2016 by Shri Dayanand Upadhyay, Assistant Controller of Mines. 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 1 and submit **three (3) firm bound and two (2) soft copies of the document text in CD in a single MS Word file (the drawing/plates should be submitted in Auto CAD compatible format or JPG format in resolution of 100x100 pixels on same CD)** with financial assurance under Rule 27 of MCDR 2017 of the Review of Mining Plan within **15 (Fifteen)** days from the date of issue of this letter, for further necessary action. If the total page of annexures exceeds 50 (Fifty) then it should be submitted as separate volume. But reference of these annexures must appear in the Review of Mining Plan document. The plates are also to be submitted in separate volume.

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.

Yours faithfully,


(HARKESH MEENA)

Regional controller of Mines

Scrutiny comments on examination of Scheme of Mining of Khatkurbahal limestone mine over an area of 72.439 Ha of M/s Shiva Cement Ltd situated in Dist. Sundergarh, Odisha State submitted under rule 12 of MCDR 1988.

1. "General":

- i) On cover page "Scheme of Mining" may replace with Review of the mining plan under rule 17(1) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rule 2016 and same may be refer in different part of the text. Complete address of the lessee with phone no., fax no. & e-mail has not been furnished
- ii) The certificates do not bear date with signature.
- iii) List of table as depicted in different chapter may be enclosed with annexure.
- iv) Consent letter/ Undertaking/Certificate as furnished by the Lessee may be included the para as "I do hereby undertake to complete exploration in time bound manner in accordance with Ministry of Mines letter no.-10/75/2008-MV, dated 23.12.2010".
- v) All the annexure to be properly indexed/ numbered/ paged and signed by qualified person. Sr no. of annexure not matched as mentioned in text.
- vi) Certificate produced from qualified person mentioned Scheme of Mining where in cover page and text mentioned Review of Mining Plan.
- vii) Status of deemed extension of lease under section 8 of MM(D&R) Amendment Act 2015 as marked with annexure -II in Introduction chapter has not been enclosed.
- viii) A latest list of board of directors duly certified by competent authority along with address/contact nos. to be enclosed. Latest resolution i.r.o. of nominated owner to be submitted comprising authorization of him under MMDR act also.
- ix) Chapter-" Location & Accessibility", breakup of lease area may be furnished.

2. Chapter- "Details of approved Mining Plan/Scheme of Mining":

- i) Date and reference of earlier approved mining plan/ scheme of mining may furnish in chronicle order.
- ii) Para 3.3.1, The details bore holes drilled during 2012-13 to 2015-16 may described with Form-J submitted to this office under rule 47 of MCDR'88 alongwith annexure.
- iii) Page-7, para (iii), production of OB/waste should not be included with mineral reject.
- iv) Para 3.4, status of compliance of violation pointed out by IBM, violation letter may be described in chronicle order with compliance report submitted by lessee.

3. Chapter- "Geology & Exploration":

- i) Expenditure incurred in various prospecting/exploratory drilling operations has not been furnished.
- ii) Page-14, para (h)(i) has not been clearly described. The no. of bore holes proposed have not been furnished with grid interval.
- iii) Page-20, para-k, the details calculation of reserve has not been described with the parameters of cut off grade, threshold value, depth of mineralization, grade & recovery factor.
- iv) Page 21 & 22, Proved geological reserve and probable geological may be separated in different UNFC codes like 111, 121, 211 & 221 considering cross-sections in tabular

form. Blocked up ore due to various restrictions to be described properly and depicted in table.

- v) Table 1(c), (d), (e), (f) Length of influence and recovery factor may be corrected.
- vi) The probable mineral reserve under 121 has not been justified with Geological plan and sections.
- vii) The reserve & resources furnished under UNFC table not correctly depicted in column.
- viii) Reserves and resources estimated in existing modified scheme of mining may be depicted with depletion of reserves and estimated balance reserve as on date of proposed period.
- ix) As per guideline of “IBM manual on appraisal of Mining Plan-2014”, a NOTE to be added immediate below the estimated reserve/resource Table regarding tentative tonnage.
- x) NABL Accreditation certificate of laboratory from where Chemical Analysis of BH samples should be enclosed.

4. Chapter- “Mining”:

- i) Page-31, Existing method of mining has not been described properly bench height and width as described not matched with actual. Sentences are also not in sequence.
- ii) Page-32, Proposed method for excavation has not been described properly. The nos. of benches in ore & OB, top & bottom mRL proposed may be described.
- iii) Page-33, Insitu Tentative Excavation has not been prepared as per guideline of “IBM manual on appraisal of Mining Plan-2014”.
- iv) Page 37-42, In the development and production tables bench wise, year wise area of excavation and average thickness of the excavation or average area of cross section of bench and its average advance is to be given along with RL of bench with direction of advance at the end of the year.
- v) Ultimate pit limit should be depicted on all relevant plans & sections.
- vi) Bulk density of OB & ore and recovery factor has not been furnished
- vii) Page-56, In drilling and blasting average depth of blast hole proposed 5m while bench height is proposed 6m. It may be clarified.
- viii) Page-49, Conceptual mining plan, cumulative waste generation and top soil generation and protective measures have not been furnished.

5. Chapter- Mine drainage:

RL of present and proposed workings and summer and post monsoon water table in the area supported with ground water monitoring study done in the area may be given.

6. Chapter- “Stacking of mineral reject/ sub grade material and disposal of waste”

- i) Retaining wall and garland drains to be proposed all along the top soil dump, waste dump and stack yard.
- ii) Yearwise excavation of waste with cross-section has not been in tabular form. The details of existing dump has not been described.

- iii) Yearwise generation of top soil with their location and preservation for future use may described properly..

7. Chapter- Use of Mineral and Mineral Reject:

Plant capacity and their requirement in terms of physical & chemical composition matching with proposed production of mine may be furnished.

8. Chapter- "Other":

- i) Existing manpower both direct and contractual has to be mentioned in the text.
- ii) An organizational chart has to be provided for risk assessment study to whom communication to be made in case of any accident.

9. Chapter- "Progressive Mine Closure Plan":

- i) Reclamation plan has not been submitted as per guidelines of IBM-Manual-Appraisal-MP-2014.
- ii) Page-70. Para8.1, total sum of existing land use pattern as furnished in table-8(a) is not correct.
- iii) Page-90,para-8.3.5 the table of protective measures of reclamation and rehabilitation has not been furnished completely.
- iv) Page-93, Financial assurance table as furnished is not matched with existing land use pattern as mentioned in table no.-8(a), page-70.
- v) Page-93, amount of financial assurance calculated is not as per rule 27(1) of MCDR-2017. It may be re-calculated and submitted along with final copy of review of the mining plan,
- vi) Updated air, water, noise, ground vibration and soil data with analysis from laboratory done at specified periodicity for last one year to be enclosed.
- vii) Under impact on land, cumulative land degradation at present, at the end of proposal period and at the end of conceptual period may be given referring to conceptual mining plan given in scheme of mining.
- viii) Year wise proposed location of plantation to be mentioned in tabulated form in text part of the document and same to be depicted in reclamation plan.

10. Plates(General):

- i) The plans and sections submitted do not bear the certificate that --the plans and sections are prepared based on the lease map authenticated by the state government.
- ii) All plans and sections shall show a scale of the plan at least twenty five centimeters long and suitably subdivided. All plans & sections prepared shall follow the sign conventions mentioned under MMR 1961.
- iii) All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager and Mining Geologist.
- iv) Magnetic Meridian and date of observation of should be given on all relevant plans.

11. Key Plan/Lease Plan:

In key plan approach road has not been shown. Authenticated lease plan/Location Plan, the lease area may be located between two grid lines vertically and horizontally.

12. Surface Plan:

Different land use may be shown with colour codes. Forest & Non forest area, Surface right acquired area etc. should be marked clearly.

13. Geological Plan & Section:

- i) Geological features like strike, dip, dip direction etc to be marked clearly. Symbol as shown in plan not clearly marked in legends.
- ii) Specific year may be mentioned in yearwise exploration proposal.
- iii) The UNFC has not been depicted in geological plan. The reserve under G1 & G2 category and limits of reserves/resources under different codes may be marked on geological plan and sections in different colour codes.
- iv) The geological sections have not been prepared correctly in terms of reserves & resources. Section X17-Y17 not correctly shown in plan. The reserves as furnished under 121 has not been justified with Geological sections. All the sections should be re-checked as per bore hole data and modified accordingly.
- v) mRL of bore holes have not been marked in plan and section. Bore holes have not been correctly depicted in the sections. Grid lines have not been shown in sections.
- vi) The direction along which geological section has been prepared to be depicted on geological section.

14. Year wise development plan & Section:

- i) Development profile has not been made correctly. Bench mRLs at the beginning and end of the year not shown. Colour code of 2nd year and 3rd year may be distinct .
- ii) Advancement of dump yearwise has not been shown. Existing position of dump and proposed dump height has not been marked with mRL and different colour codes.
- iii) Excavation in ore and OB is not clear hence on year wise plans and sections ore and OB may be marked.

15. Environment plan:

- i) The Environment Plan as prepared should be satisfied the provision as laid down rule 32(5)(b) of MCDR2017.
- ii) Environmental monitoring stations have not been marked.
- iii) Wind direction may shown through wind rose diagram.

16. Financial Assurance Area Plan:

In the Financial Assurance plan area of each individual land i.e land degradation due to mining and allied activity at the end of plan period may be shown separately on this plan with highlighted boundaries and different colour codes for FA calculation.

17. Conceptual plan:

This may be prepared considering mineralization as revealed from the borehole logs. One longitudinal section may also be submitted. Direction of run off from the area based on surface contours may be shown on the plan and the sections. The quarry as shown in section during conceptual period proposed with plantation whereas in text backfilling has been proposed.

18. Reclamation plan has not been submitted as per guidelines of IBM manual Appraisal- MP-2014.