

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

No. MS/OTFM/12-ORI/BHU/2016-17

Plot No. 149, Pokhariput
Bhubaneswar – 751 020
Date: 13.12.2016

To

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

Sub: Approval of Scheme of Mining 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 12 of MCDR, 1988.

Ref: - i) Your letter No. 3006/104 dated 25.11.2016.
ii) This office letter of even no. dated 25.11.2016.

Sir,

This has reference to the letter cited above on the subject. The draft Scheme of Mining along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on site inspection carried out on 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 Scheme of Mining 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 23 F of MCDR 1988 of the Scheme of Mining 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 Scheme of Mining 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 modified copies of the Scheme of Mining. It may be noted that no extension of time in this regard will be entertained and the Scheme of Mining 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,

853221

(HARKESH MEENA)

Regional controller of Mines

ANNEXURE-I

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.

“General”:

1. On cover page lease period & area in forest/non forest has not been mentioned.
2. All the certificate do not bear date with signature.
3. List of table as depicted in different chapter may be enclosed with annexure.
4. 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”.
5. All the annexure to be properly indexed/ numbered/ paged and signed by qualified person.
6. Certificate produced from qualified person mentioned Scheme of Mining where in cover page and text mentioned Review of Mining Plan.
7. Status of deemed extension of lease under section 8 of MM(D&R) Amendment Act 2015 has not been furnished in Introduction chapter.
8. Qualification & experience as per rule 15 of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rule 2016 should be enclosed in annexure not in text as mentioned at page-3.
9. Annexures enclosed have not been signed by qualified person and some of the annexures are not readable.
10. 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.
11. Chapter-“ Location & Accessibility” , para-a, word ‘map’ may replace with ‘mine’. Breakup of lease area may be furnished.

Chapter- “Details of approved Mining Plan/Scheme of Mining”:

12. Date and reference of earlier approved mining plan/ scheme of mining may furnish in chronicle order.
13. Para 3.3.1, The details bore holes drilled during 2012-13 to 2015-16 may described yearwise with Form-J submitted to this office under rule 47 of MCDR’88.
14. Para (iii), production of OB/waste should not be included with mineral reject.
15. Para-(iv), yearwise afforestation may be furnished with area covered and rate of survival.

16. Para-(v), mitigation measures for control of dust, noise & ground vibration not described properly.

17. Para 3.4, in table status of compliance of violation pointed out by IBM, violation complied by lessee may replace with compliance report submitted by lessee.

Chapter- “Geology & Exploration”:

18. Para described under different heads are not matched as per guide line of IBM-Manual-Appraisal-MP-2014.

19. Para-1.0, Vegetation, climate, rainfall data of the area has not been described.

20. Para-e, “ Details of prospecting/exploration already carried out”, Number of boreholes indicating type (Core/RC/DTH), diameter, spacing, Collar level, depth etc have not been furnished in tabular form as carried out in 05 years period of existing scheme period in comparison of proposed drilling.

21. Details of samples analysis from a NABL accredited Laboratory or Government Laboratory may be furnished.

22. Expenditure incurred in various prospecting/exploratory drilling operations has not been mentioned.

23. Para-h, “Geological Section” total seventeen geological sections has been mentioned while in figure 24 geological sections have been mentioned.

24. Para-i, It has been mentioned that 26 nos of bore holes has been drilled in plan period 2012-13 to 2016-17 while in review chapter there is 17nos of bore holes have been mentioned. Description is also not clear.

25. The implementation year of future exploration programme has not been furnished correctly.

26. Earlier exploration carried out so far in the lease area has not been summarized as per table below:

Total Lease area:.....						
Item of information	Lease area explored as per UNFC norms (in Ha) as on dt.....					Remarks/Comments including reasons for not carrying out the exploration as per UNFC norms.
	Total Lease area = A+B+C+D+E					
	G1 Level	G2 Level	G3 Level	Explored and found non-mineralized with level of exploration (Remarks)	Unexplored lease area	
	A	B	C	D	E	
Area as per level of exploration						
No. of BH Drilled						
No. of BH considered for Resource Estimation.						

Meterage Drilled					
Grid Interval					
Scale of Mapping					
Reserve estimated after above exploration as on dated :.....					
Remaining Resource after above exploration as on dated:.....					
Total Reserve/Resource after above exploration as on dated:.....					

27. Reserve and resources has not been estimated as per Minerals (Evidence of Mineral Contents) Rules, 2015.

28. 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.

29. Page-30, Grade of the mineral has not been depicted in UNFC table.

30. Further, up-dation/estimation of the reserve and resource should be carried out taking in to account recent exploration and excavation/ pits exposure carried out considering the threshold value of limestone as prescribed by IBM. Reserves/resources should be estimated both in slice plan method and cross-sectional method and variance, if any, to be analyzed.

31. Page 25: Blocked up ore due to various restrictions to be described properly and depicted in table.

32. 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.

33. NABL Accreditation certificate of laboratory from where Chemical Analysis of BH samples should be enclosed.

34. In the UNFC feasibility study : Economic evaluation of the project is not carried out properly like Cost of Production (CPT), Cost-Benefit analysis and Financial appraisal are not carried out based on real time cost involved and also Viability of the project up to the ultimate depth has not been analyzed. Further, In the UNFC feasibility study, following important parameters is not dealt with properly:-

- a. Assessment of IRR (Internal Rate of Return) and NPV based on present market economics and real time operating cost, reclamation/ rehabilitation cost, closure cost and other important parameters as per UNFC guidelines for the life of the project on the basis of ore body geometry, i.e., depth, width, length etc. and considered for reserve/ resource estimate.
- b. Sensitivity analysis on cash flow due to market changes, i.e., cost of operation, sale price etc. is not carried out.

Chapter- “Mining”:

35. Production has been proposed from two quarry i.e existing quarry Block-A and new quarry Block-B. Since the mineralization is continue in Block-‘A’ and to meet the proposed requirement of five year production there is sufficient reserves of limestone. Therefore it is not needed to propose quarry of Block-B for mining to minimize the land degradation in the interest of protection of environment and scientific development of mine. Accordingly development program and related plans & sections may be modified.

36. Page-30, Existing mining method has not been described properly. Size of existing quarry in dimension of length, width, depth and present top & bottom mRL has not been mentioned.

37. Page-32, Mineral reject/waste as depicted in table 2(a) both is conflicting. It may be corrected.

38. Page-32 & 33, Insitu Tentative Excavation has not been prepared as per guideline of “IBM manual on appraisal of Mining Plan-2014”.

39. ROM/waste ratio may be furnished in table of tentative excavation.

40. Page-46, fully mechanized method of mining may be corrected as per method described for OTFM category.

41. Conceptual mining planning has not been described properly.

42. Page-47, the dumping site as described may be corrected and to be insured on non-mineralized ground.

43. 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.

44. Drilling and blasting has not been described properly.

45. Ultimate pit limit should be depicted on all relevant plans & sections.

46. Page-39, it has been mentioned concurrent backfilling but no backfilling has been proposed. It may be clarified.

Chapter- Mine drainage:

47. 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.

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

48. Retaining wall and garland drains may be proposed all around the dump slopes.

49. Storage/Stacking of Sub-grade material/ Mineral reject has not been described properly.

50. Yearwise excavation of waste may be depicted in tabular form.

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

Chapter- Use of Mineral and Mineral Reject:

52. Specifications stipulated by user industry using your mineral viz-a viz grade of mineral being produced from mine may be given.
53. In summary of PMCP table, Cumulative actual achievement as on date and specific proposal should be given year-wise in absolute quantified term.

Chapter- “Other”:

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

Chapter- “Progressive Mine Closure Plan”:

56. Reclamation plan has not been submitted as per guidelines of IBM-Manual-Appraisal-MP-2014.
57. Updated break up of present land degradation (pit, water body, dumps, infrastructure, settlement etc) under different land types (forest, revenue, waste, grazing etc) may be given.
58. Updated air, water, noise, ground vibration and soil data with analysis from laboratory done at specified periodicity for last one year to be enclosed.
59. 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.

Plates:

60. 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.
61. All the plan & sections prepared bear the signature of certified surveyor.
62. Wind direction may show through wind rose diagram in key plan and environmental plan.
63. All plans & Sections should bear dated signature.
64. Magnetic north and date of observation of Magnetic Meridian should be given on all plans except Khasra Plan.

65. Key Plan/Lease Plan:

In key plan Wind direction may be shown through wind rose diagram. Authenticated lease plan has not been submitted.

66. Surface Plan:

- i) Latitude, longitude of all corner pillars may be indicated on the plan. Acquired area may be marked clearly.
- ii) Few pillars may be correlated with some permanent ground features giving distance and direction. Different land use may be shown with colour codes.
- iii) Forest & Non forest area, Surface right acquired area etc. should be marked clearly over a separate Lease Plan & Surface plan.

67. Geological Plan & Section:

- i) Geological features like strike, dip, dip direction etc to be marked clearly.
- ii) The reserve under G1 & G2 category and limits of reserves/resources 111 and 211 marked on geological plan and sections in different colour codes.

- iii) The geological sections have not been prepared correctly in terms of reserves & resources. All the sections should be re-checked as per bore hole data and modified accordingly.
- iv) mRL of bore holes have not been properly marked and not correctly depicted in the sections. Grids have not been shown properly.
- v) The direction along which geological section has been prepared to be depicted on geological section.

68. Year wise development plan & Section:

- i) Dump has not been shown in section X2-Y2. Existing position of quarry has not been marked clearly.
- ii) Excavation in ore and OB is not clear hence on year wise plans and sections ore and OB may be marked. Show position of faces and bench Rls at the beginning and end of the year distinctly with direction of advance and individual year workings with colour code. Spot levels at sufficient no of places on original surface, in the pit, and at the toe of benches may be shown so as to ascertain the average depth of excavation in a particular bench.

69. Environment plan:

- i) The Environment Plan as prepared should be satisfied the provision as laid down rule 28(5)(b) of MCDR'88. In the Environment plan Environment monitoring stations to be shown.
- ii) Contours have not been marked in buffer zone.
- iii) Environmental monitoring stations have not been marked.
- iv) Wind direction may show through wind rose diagram.

70. Financial Assurance Area Plan:

Area as depicted in text for FA not matched with area given in plan. In the Financial Assurance plan area of each individual land i.e land degradation due to mining activity and processing unit etc at the end of plan period may be shown separately on this plan with highlighted boundaries and different colour codes for FA calculation.

71. 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.

