



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. MS/MAN/14-ORI/BHU/2017-18

दिनांक / Date: 03.10.2017

To

Shri Naresh Kumar Agrawal,
Director and Nominated Owner,
M/s Manikeswari Gems Private Limited,
Plot No-N1/65, IRC Village, Nayapalli,
Bhubaneswar, Odisha-751020.

Sub: Approval of Review of Mining Plan along with Progressive Mine Closure Plan of Bandaguda Semiprecious Stone (Iolite) Mines over an area of 2.023 ha in Kalahandi district of Odisha of M/s Manikeswari Gems Private Limited under Rule-17 of MCR'2016.

Ref: - i) Your letter no. 1301 dated 11.09.2017.
ii) This office letter of even no. dated 13.09.2017.
iii) This office letter of even no. dated 13.09.2017 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

Sir,

This has reference to the letters cited above on the subject. The draft Review of Mining Plan along with Progressive Mine Closure Plan has been examined in this office based on site inspection carried out on 23.09.2017 by Shri Dilip Jain, Junior Mining Geologist. 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 **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 and JPG format in resolution of 100x100 pixels on same CD)** with financial assurance under Rule 27 of MCDR' 2017 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 para-wise clarifications and the manner in which the deficiencies are attended should invariably be given while forwarding the modified 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 / yours faithfully,

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Scrutiny comment on Review of Mining Plan including PMCP in respect of Bandaguda Semi-precious Stone (Iolite) Mine of M/s Manikeswari Gems in Kalahandi district of Odisha State

Date of Inspection: 23.09.2017

GENERAL:

1. The address mentioned on the page number 4 and 5 of the company is not matching with the address mentioned on the letterhead of the company. Further, valid/active mail id of the company/managing director to be mentioned in address.
2. On cover page registration as allocated by needs to be mentioned. Further, summery of the proposals to be given before the introduction page.
3. From the copy of lease deed it is observed that the Sri Mukesh Kumar Agrawal is the director of the company, however, on page 3 Mr. Naresh kumar Agrawal and Mrs. Gayatri Devi Agrawal is mentioned as the director of the company. Same needs to be supported by documentary evidence.
4. Page 1: it is mentioned that "after two years of mining in the area , lessee submitted a modification to the approved mining plan". However, form available records it is observed that modification was only done for last year i.e. 2005-06. Verify and rectify.
5. Para B: the distance of the district headquarters/tehsil, nearest village etc. to be mentioned in the para along with the road/railway details.
6. Para 3.1: The details of last approved mining plan and scheme of mining plan may be given in tabulated with all details like letter number of approval, date, period, rule position etc.
7. Para 3.4: It is mentioned that "no specific condition or stipulation were imposed ". However, form office record it is observed that at many occasion violation of MCDR, 1988 were observed. Hence, the violation pointed out and its compliance to be given for entire previous scheme period i.e. 2011-12 to 2015-16 and 2016-17 to 2017-18.
8. Para 3.5: It is mentioned that mining operations were stopped since 01.03.2006 due to local disturbance & legal matter and the State Government allowed to reopen the mine on 26.11.2014. The documentary evidence of the same to be given.
9. CCOM circular no. 2/2010 and its addendum regarding geo-reference mining lease map and ML boundary pillars to be implemented.
10. Grammatical mistakes are found to exist at many places, which need to be corrected.

GEOLOGY:

11. To decipher the depth as well as lateral continuity of the host rock and to bring entire potentially mineralized area under G1 level of exploration, exploratory BH need to be proposed at an interval of 25 meter. Accordingly proposal of exploration to be revised.
12. Page 17: An amount of Rs. 25000 has been mentioned toward exploratory expenditure. The documentary evidence in respect of same to be given.
13. Geological feature like dip, strike and dip direction etc. have not shown on the Geological plan. Same to be shown on the plan and accordingly plan and section may be revised.
14. As per Minerals (Evidence of Mineral Contents) Rules, 2015, for G2/G1stages of exploration the depth continuity of mineralisation to be considered limited to the depth upto which direct evidence of mineralization is established. Accordingly the estimation to be revised.
15. Resource under different category i.e. G1, G2, and G3 to be given in tabulated form as giavn in the mining plan format 2014.
16. In view of above points, the proposal of the exploration to be given in the first year for the area proposed for the waste dumping and excavation. Further, the details like BH id, location (UTM), depth, inclination, Grid interval, BH type (Core/non-core) to be given in tabulated form for the proposed exploration.
17. Some of the points as indicated in Geology and Exploration Chapter of "IBM manual for Mining Plan appraisal-2014" are not attended.

MINING:

18. Para A: Briefly describe the existing mining method along with all the parameters.

- FEASIBILITY STUDY
19. Page 29: the coordinated mentioned in table to show the extent of the quarry and dump are not matching with the Surface plan. Verify and rectify.
 20. Page: The quantity of Ore to be excavated needs to be given in cubic meter. Further, stripping ratio is mentioned as 1:8.88, needs to be justified.
 21. Page 30, Dump re-handling: It is proposed to re-handle the existing dump to recover mineral. However, the recovery of likely quantity of the mineral to be recovered and quantity of waste etc. has not been given. Recovery of the mineral to justify with documentary evidence.
 22. The proposal of the excavation has not given in the scientific manner as from the section and plans it seems that there will be very less space to space to develop the quarry benches through excavator. Verify and justify the proposal.
 23. The sectional area mentioned in table presented on page 34 (a) does not match with sectional area of the development section. Verify and rectify.
 24. Top and Bottom mRL mentioned in table presented on page 36 is not matching with the plan.
 25. In para 2. (b) It was written ROM of Limestone & Dolomite mistakenly, which may be changed suitably.
 26. Location of mine workings, dump working, sub-grade dumping etc. proposed has not been referred by grid lines in text part of documents.
 27. Development proposal need to be modified in view of the change in Geological plan, section and UPL.
 28. A drainage plan may be submitted showing the drainage pattern of the lease area. Accordingly, environment protective measures like retaining wall, garland drain, settling tank etc. may be proposed/revised.

STACKING OF MINERALS REJECT/ SUB-GRADE AND DISPOSAL OF WASTE

29. It is proposed to backfill the excavated area of the year 2017-19 without any technical justification. Same need to revise as the lease area is not properly explored. The proposal of the backfilling should be given after complete exploration of entire lease area.
30. It is observed that proposed waste dump area is not explored. Such area should be brought into the use after proving non-mineralized (to be mentioned in text part of the document) or temporary dumping for a short period to be proposed in mineralized area with technical constraints & justification.
31. Garland drain and retaining wall to be proposed all along the dump to arrest any surface wash-off.
32. The nomenclature of dumps in plan, section and text should be same. Further, the proposals of plantation over waste dump to be given year wise.

USE OF MINERAL AND MINERAL REJECT:

33. Describe briefly the requirement of end-use industry specifically in terms of physical and chemical composition.
34. Give brief requirement of intermediate industries involved in upgradation of mineral before its end-use.
35. Give detail requirements for other industries, captive consumption, export, associated industrial use etc.
36. Give details of processes adopted to upgrade the ROM to suit the user requirements.

PROGRESSIVE MINE CLOSURE PLAN

37. Page 54: Area likely to be degrade is mentioned as 0.732 Ha which needs to be verified and rectified.
38. Page 62 to 65: The cost/expenditure likely to be occur in the proposal mentioned in the table needs to be mentioned.
39. As the area of the lease is very small, hence the proposal of the plantation along the safety zone may be given in the first and or second year of the plan period.
40. The Location, schedule and frequency of environment monitoring parameter to be mentioned in the text part of the document. The proposal of water quality analysis to be given and same needs to be depicted in relevant plan.

FEASIBILITY STUDY REPORT:

41. Financial analysis is not carried out as per UNFC guidelines. It should be carried out based on real time cost. Viability of the project should be analyzed up to the ultimate depth considering following points:
42. Available reserve and resource, Capital cost, Cashflow forecast, Investment cost, Inflation forecast, Operating cost, Sensitivity studies, RR, IRR, NPV for the project life, Sale Price, cost of operation, Closure cost and Rehabilitation cost etc.

PLATES:

43. All drawings/plans should be signed with date and certified to be correct by the certified Surveyor, Qualified Person, Mine Manager, Mining Engineer and Mining Geologist as per provisions of Rule 30 of MCDR, 1988 and Rule 66 of MMR, 1961.
44. Surface plan: The information in respect of the surface right obtained may be marked and mentioned on the plan. Further, surface featured needs to be rectified as discussed in the field especially in respect of the benches etc. The depth and shape of the pit may also be revised as discussed.
45. Geological plan and Section: All the proposed BH need to be shown the section along with the proposed depth.
46. Development plan and Section: From text is observed that waste is proposed to be generated up to the year 2020-21; however proposal of waste dumping has been given for two years only i.e. 2017-19.
47. The proposed and existing bench mRL to be mentioned in all relevant the plans and sections. All plans and sections should bear date and signature.
48. Environment Plan: Monitoring stations at the strategic points in core & Buffer zone for different environmental components should be shown over this plan.
49. Key Plan: All the features as mentioned in the MCDR, 2017 needs to be shown on the key plan.

ENCLOSURE:

50. In certificate of Lessee, instead of consulting geologist, qualified person to be mentioned. Verify and rectify. Further, it is to be mentioned that all the PMCP work as proposed will be completed in time bound manner.
51. Page 2: it is mentioned that CTO is enclosed as annexure-V, however, same is not enclosed.
52. Evidence of the other lease area hold by the Lessee as mentioned on page 3 to be enclosed.
53. Few photographs showing the mineralized zone,
54. Photo id of owner submitted is obscure, legible copy of same to be submitted. The signature of owner on photo id should be match with the certificate, hence, signature proof of owner to be enclosed.
55. All the annexure to be properly numbered/paged and signed by QP. Further, All the pages of the text and relevant pages of the annexure to be signed by qualified person.
56. Few photograph of the Boundary pillars, present land use, exploration activity, existing of mineralization etc. to be attached.

In view of above, wherever necessary correction required to be made.

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