



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

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No. MS/MAN/03-ORI/BHU/2017-18

Plot No.149, Pokhariput,
Bhubaneswar,
Odisha-751 020.
दिनांक / Date: 30.05.2017

To

**Shri Debraj Meher, Mine Owner,
At/Post-Chichaiguda, Via-Junagarh,
Dist-Kalahandi, Odisha-766 014.**

Sub: Approval of Review of Mining Plan along with Progressive Mine Closure Plan of Labanyasor Semiprecious Stone (Iolite) Mine over an area of 2.505 ha in Kalahandi district of Odisha of Shri Debraj Meher under Rule-17 of MCR'2016.

Ref: - i) Your letter no. 1301 dated 09.05.2017.
ii) This office letter of even no. dated 11.05.2017.
iii) This office letter of even no. dated 11.05.2017 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 06.03.2017 by 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 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 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 Labanysor Semi-precious Stone (Iolite) Mine of Shri Debraj Meher in Kalahandi district of Odisha State.

Date of Inspection: 06/03/2017

GENERAL:

1. As per appraisal of Mining Plan format-2014 information i.r.o. para 1(e) Mineral(s) which is the applicant /lessee intends to mine to be given.
2. Para 3.3: The violation pointed out and its compliance to be given for entire previous scheme period i.e. 2012-13 to 2016-17.
3. Para 3.5: It is mentioned that mining operations were under suspension since 26.02.2006 to 01.10.2008, the reason of suspension along with documentary evidence of same to be given.
4. Some of the points as mentioned in the appraisal of Mining Plan format-2014 has been not reflected in the text.
5. CCOM circular no. 2/2010 and its addendum regarding geo-reference mining lease map and ML boundary pillars to be implemented. Further, it is mentioned on page number 4 that the state authenticated lease GPS M.L. boundary is submitted as plate-II. However, same is not found in document. The basis of boundary (GPS/DGPS) pillars mentioned on same page needs to be clarified.
6. In introduction describe about the extent and nature of surface right being held by the Lessee to carry out various mining activities. Documentary evidence in respect of same to be enclosed.
7. Grammatical mistakes are found to exist at many places, which need to be corrected.

GEOLOGY:

8. The regional stratigraphic succession to be given. Further, as per approved document only three trial pits have been carried out in lease area, however, in instant document five number of trial pits are mentioned. Verify and rectify.
9. An amount of Rs. 15000 has been mentioned toward exploratory expenditure. The documentary evidence in respect of same to be given.
10. Page 10: It is mentioned that recovery test to be done. The copy of same enclosed herewith as annexure-III. Both sentences are contradicting with each other. Further, annexure-III for recovery has not enclosed.
11. The basis for 12 Gram/ tone of Iolite to be justified with time series data or some technical analysis. The documentary evidence in respect of Density considered to be enclosed.
12. In absence of geological plan and section, the comment on reserve and resource estimation could not be given. It is advised to estimate the reserve and resource as Minerals Evidence of Mineral Contents Rules 2015. Further, geological plan and section may be prepared as per MCDR 2017 and to be submitted.
13. Exploration proposal should be given for entire lease area apart from explored area and the same should be completed within this scheme period as per rule 12(4) of MCDR, 2017. Undertaking to be given that entire potential mineralized area will be explored within a period of five years as per rule 12(4) of MCDR, 2017. Proposal for exploratory BH may also be given along with trial pit and trench to prove the depth continuity of the host rock as per MEMC Rule 2015. Proposal of trench to be right-angle to the strike of the Host rock.
14. Para j: The details like total mineralized area, area explored under different UNFC category etc. to be given. Justification for different UNFC categories has not been carried as per guideline. Needs to justify as per guideline or MEMC, Rule 2015.
15. Para k: Briefly described about the resource estimation. Total Geological Resource, Reserve, Resource blocked under Safety Zone, bench etc. to be given in separate table. The x-section area mentioned in table presented on page number 14 does not match with the Geological x-sectional area. Verify and rectify. The UPL RL mentioned on page 15 may be verified and rectified.
16. Some of the points as indicated in Geology and Exploration Chapter of "IBM manual for Mining Plan appraisal-2014" are not attended.

MINING:

17. Para A: Briefly describe the existing as well as proposed method for excavation with all design parameters indicating on plans /sections.
18. Table 19: The quantity of Ore to be given in cubic meter.
19. As the date of expiry of lease period is 24.02.2022, hence, the proposal of the 2021-22 should be upto the date of expiry. Modify accordingly.
20. Page 24: Area to be degraded during scheme period is not mentioned in the table. Further, detailed land use table to be given including present land use and proposed land use at the end of review of mining plan. Table 26 , stripping ratio is mentioned as 1:1.1 ,needs to be justified.
21. Location of mine workings, dump working, sub-grade dumping etc. proposed has not been referred by grid lines in text part of documents.
22. Development proposal need to be modified in view of the change in Geological plan, section and UPL.
23. Post mining land use at final/conceptual mining stage to be described.
24. Conceptual plan: The details of ultimate pit may be given i.e. length, width, top and bottom mRL, number of benches etc. Similar information of ultimate waste dump, sub-grade dump and mineral rejects may be given.
25. The quantity of Sub-grade to be generated during conceptual period and its utilization and future planning for beneficiation may be given.
26. Mine Drainage: a) Quantity and quality of water likely to be encountered, the pumping arrangements and places where the mine water is finally proposed to be discharged. b) Describe regional and local drainage pattern. Also indicate annual rain fall, catchments area, and likely quantity of rain water to flow through the lease area, arrangement for arresting solid wash off etc.
27. 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

28. Indicate briefly the nature and quantity of top soil, overburden / waste and Mineral Reject to be disposed off as per table given in the "IBM manual for Mining Plan appraisal-2014". Top soil is proposed to be generated, however, location of dumping of same not depicted/mentioned.
29. Dump plan and section are not submitted in instant document. 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. Hence, exploration proposal in proposed dump area to be given in the first year scheme.
30. In existing dump details capacity of dump, existing quantity of waste and reaming quantity of waste etc. have not been mentioned.
31. Details of protective works carried out around existing Dumps of Waste & Sub-grade, should be given with documentary evidence. Further, Proposal for protective works to be carried out year wise around waste and sub grade dumps should be given taking into consideration of average rain fall in the area.
32. Build-up of dumps from year to year to be mentioned in text w.r.t. bottom and top mRL of individual terrace, dump slop, individual terrace height and slope with description of method & manner of disposal of waste should be mentioned.
33. The nomenclature of dumps in plan, section and text should be same. Further, the proposal of plantation over waste dump to be given year wise.

USE OF MINERAL AND MINERAL REJECT:

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. Few reports in respect of parameter of Quality of Air, Noise Level etc. are to be enclosed. The calculation of FA is not carried out properly. Verify and rectify. The area of FA in text and plan does not match with each other.
38. The details of parapet wall etc. to be given table 38.

FEASIBILITY STUDY REPORT:

39. 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:
40. 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.
41. The resource table given on page 5 of feasibility report does not match with the resource table given in text part of the document.

PLATES:

42. 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.
43. 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.
44. Surface plan, geological plan and geological Section is not submitted with instant document. The outline of existing quarry and Waste dump as marked on the plan does not math with actual. The contour value to be shown in all the plans. Further, ultimate pit limit to be shown in all the plans and sections.
45. Date of observation of Magnetic Meridian should be given on all plans except Khasra Plan.
46. Surface Plan: Forest area, Non Forest area, Surface right acquired area etc. should be marked clearly over concern plan and section.
47. Environment Plan: Monitoring stations at the strategic points in core & Buffer zone for different environmental components should be shown over this plan.

ENCLOSURE:

48. The copy of the circular as mentioned on page 1 to be enclosed. Further, copy of letter of Registration number IEM/57/2011 to be enclosed.
49. Letter of lease grant dated 02.12.1999 to be enclosed.
50. 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.
51. 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.
52. Few photograph of the Boundary pillars, present land use to be attached.
In view of above, wherever necessary correction required to be made.

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